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Teacher Trainers' Attitudes and Levels of ICT Use in Government Teacher Training Colleges in the North West Region

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Abstract:

This study examined the relationship between teacher trainers' attitudes and their levels of use of ICTs in Government Teacher Training Colleges (GTTCs) in the North West Region of Cameroon. The cross-sectional survey research design was adopted, using a 33-item self-designed questionnaire to collect data from 162 teacher trainers of seven GTTCs. The purposive and proportionate simple random sampling techniques were adopted to select participants for this study. Data were analysed using SPSS 20.0. Frequency, percentage, mean and standard deviation tables were used for descriptive analysis while Pearson's Product Moment Correlation and T-Test were used to test hypothesis at 0.05 level of significance. The findings indicated that teacher trainers demonstrate a positive attitude towards the use of ICTs in teaching given that a higher average of 120.3(74.3%) and 43(26.5%) of the respondents agreed and strongly agreed that integrating ICTs enhanced pedagogic processes. It also revealed that there is no significant difference in the level of use of ICT based on gender (t=0.21). Finally, findings indicated that there is a significant relationship between teacher trainer's attitude and their level of ICT use for pedagogic purpose (r=.612). From the findings, it was recommended that the use of ICTs for educational purposes should be given greater consideration than it currently receives. Teacher trainers should be effectively trained on the integration of ICTs in teaching during pre-service training and through seminars for those already in service to enable them develop positive attitudes towards the use of ICTs in teaching. ICT devices and related infrastructure should also be provided in teacher training colleges to ease the task of usage.

Keywords: Teacher Trainer, attitudes, ICT, Level of Use, teacher training college.

Background

The quality of a nation's workforce depends on the quality of teaching and learning in its schools. In this regard, Ahmed and Kazmi (2020) contend that the success of any educational and instructional reform is directly dependent on the strength and quality of teacher training institutions of any country. Digitalization of education is one of the key strategies to enhance this quality. It is for this reason that Pavan (2015) affirm that the use of Information and Communication Technology (ICT) in acquiring knowledge and skill has become an essential element in education and training today. However, the use of technology in facilitating teaching and learning is still in its infancy stage in most developing countries including Cameroon. Irrespective of its role, many teachers are still ignorant of the potentials that technology offers in pedagogy (Mselle, 2012).

ICT refers to telecommunications involving a combination of computers, networks, satellites, radio, television and the like (Pavan, 2015). ICTs are a combination of computer hardware and software, the network, and other digital devices used for knowledge sharing and storing (Chowdhury, 2012). ICT in this study refers to applications found on most personal computers, Internet and other electronic delivery systems such as radio, television, projectors and others that teacher trainers can use to facilitate teaching and learning in the school milieu.

The use of these technologies in education is sometimes referred to as technology integration and when technology is used by teachers to enhance education and learning as an instructional tool, it is termed pedagogical use of technology. In the context of this study, using ICT as a pedagogical tool refers to teacher trainers' ability to create solutions, access information, analyze and apply knowledge using these facilities in lesson planning, presentation and evaluation during the training of student teachers.

The integration of ICTs in pedagogy in Cameroon schools dates far back as 2001 when the President of the Republic called for the orientation of education toward the knowledge economy in his address to the Cameroon youths (Mbangwana, 2008). Since then many initiatives have been carried out but the difficulties supersede the progress. This influenced the official introduction of ICTs in general and technical secondary schools and since then many schools have been receiving presidential grants in the form of Multimedia Resource Centres with Internet connection (Mbangwana 2008). Government involvement in the area of ICTs effectively began with the development of the policy document and the general strategy for the integration of ICTs in all sectors by the National Agency of ICTs (ANTIC) and the setting up of Multimedia Resource Centres in some primary and secondary schools (Nsolly & Ngo, 2016). From 2003, official ICT programs for secondary schools were conceived (ERNWACA-Cameroon 2005) and ICT syllabuses and National Sequential Schemes of work published in 2008 were made available to Nursery, Primary and Teacher Training Colleges (Republic of Cameroon, 2018; Republic of Cameroon, 2013). In 2007, the Government created the field of Computer Science and Educational Technologies at the Higher Teacher Training College (HTTC) Yaounde to train general secondary school ICT and Computer Science teachers (Nsolly & Ngo, 2016). In 2008, a similar field was established at the Higher Teacher Training College, Maroua. In 2009, an information management system was set up at the Higher Teacher Training College, Bamenda to train technical secondary school teachers. This led to the institution of Information Technology as a school subject in January 2011, which entered into force in February of the same year. ICT was introduced as a compulsory subject in all MINESEC official examinations (Nsolly & Ngo, 2016). These developments were however not reciprocated by a concise policy on the integration of ICTs in pedagogy, nor under the Department of Sciences of Education in the various Higher Teacher Training Colleges responsible for training of teacher trainers of Government Teacher Training Colleges. These teacher trainers therefore graduated without sufficient skill in integrating ICTs in pedagogy. Computer science or

ICT subjects in teacher training colleges was more or less isolated and based on awareness without intensive focus on integrating them in facilitating teaching and learning. Also, with lack of infrastructural challenges, lessons were mostly theoretical than practical (ERNWACA-Cameroon 2010). Few ICT and Computer science teachers trained in the Higher Teacher Training Colleges and posted to GTTCs were to teach ICT as a subject and not meant to assist train teacher trainers on the integration of these facilities in enhancing their teaching. Such state of events and the incessant calls for digitalization of education in the country (MINESEC, 2023) motivated these researchers to investigate teacher trainers' attitudes and their levels of integration of ICTs in Government Teacher Training Colleges in the North West Region of Cameroon.

Objectives of the Study

Generally, this study sought to investigate the relationship between teacher trainers' attitudes and their levels of technology use in the classroom.

Specifically, the study sought to:

- Determine teacher trainers' level of ICT use for educational purposes.
- Establish the relationship between gender and teacher trainers' level of ICT use.
- Examine the relationship between teacher trainers' attitudes and their level of ICT use for educational purposes.

Research Question

Is there a significant relationship between teacher trainer's attitudes and their levels of technology use?

Specific Research Question

- What is the attitude of teacher trainers towards the use of ICTs for educational purposes?
- Is there a significant relationship between gender and teacher trainers' level of ICT use?
- Is there a significant relationship between teacher trainers' attitudes and their levels of ICT use for educational purposes?

Hypothesis

$H0_1$: There is no significant relationship between gender and teacher trainers' level of ICT use.

$H0_2$: There is no significant relationship between teacher trainers' attitudes and their levels of ICT use for educational purposes.

Literature Review

The Use of ICTs for Educational Purpose

With the proliferation of ICTs in facilitating teaching and learning, Pavan (2015) recommends that it is essential for teacher education curriculum to update teacher trainers' knowledge and skills in the use of ICTs in pedagogy as the school curriculum changes. Being a dynamic and changing technology that requires its users to update their knowledge and skills frequently, ICT warrants education to frequently rethink the content and methods of teaching and learning (Organization of Economic Co-operation and Development-OECD, 2015). Irrespective of the important role ICTs play in pedagogy, teachers still neglect its use. Level of use of ICT in this study refers to how frequent teachers make use of different hardware and software components to prepare, present and evaluate learning. Khoela and Mishra (2005) in their Technological, Pedagogical and Content Knowledge (TPACK) Model emphasize that teachers need a blend of knowledge in pedagogy, content and technology to be able to effectively integrate ICTs in their teaching.

Barodiya, Singh and Choudhary (2015) hold that the use of ICTs in teacher education has several advantages such as access to variety of learning resources, immediacy to information, facilitates collaborative learning and anytime learning, provides multimedia approach to education, authentic and up to date information, distance learning, online library and renders better access to learners with impairment. Also, when used suitably in the teacher education process, ICT has high potential to improve teaching-learning skills of prospective teachers as well as enable them to compete with changing era (Oliver, 2005). Leask & Pachler (2014) support that the effective implementation of ICT in the teaching-learning process make educational practices more beneficial and effective and enhance delivery of engaging learning experiences. As OECD (2015) posits, access to computers and the Internet, helps students search for information and acquire new knowledge beyond what is available through teachers and textbooks.

Teacher Trainers' attitudes towards the Use of ICTs

The success of any educational practice depends on the teachers' knowledge and attitude towards the use of ICT in the teaching-learning process (Zhao, Tan & Mishra, 2001). Previous research has indicted that teachers' attitudes towards technology can play an important role in the acceptance and actual use of the computer and related facilities in teaching (Ahmed & Kazmi, 2020; Al-zaidiyeen, 2010; Beri & Sharma, 2019; Hassan & Sajid, 2013). Notwithstanding this advantage, it is a sad reality that many teacher trainers still possess negative attitude towards the use of ICTs in teaching. Teacher's attitude in this study refers to teacher's satisfaction or dissatisfaction in the use of the computer related software and hardware to plan, present and evaluate learning.

Several previous studies have identified different factors that influence teacher's use of ICTs in pedagogy. These factors are teacher's beliefs and attitudes, teacher's competency, technology anxiety, demographic variables (like gender, age, experience and qualification) and infrastructure (Alrasheedi, 2009; Al-zaidiyeen, 2010; Bingimlas, 2009). Beri and Sharma (2019) contend that lack of training and technical support influenced teacher trainers' attitudes towards the use of ICTs in teaching. Similarly, teacher-educators have some anxiety towards using ICT tools and devices and lack motivation and enthusiasm towards using these facilities during teaching-learning process. Arends (2011) contends that effective teachers should have positive dispositions towards knowledge. This positive disposition is bound to push them use ICTs in enhancing teaching. Beri and Sharma (2019) in their research work affirm that some teacher-educators have positive attitude to some extent towards the ICT tools and its usage in teacher education process. ICT-training, technical support, provision of ICTs, motivation, support from management is probably what motivates such teacher trainers to successfully incorporate ICT in teacher education process. Ndibalema (2014) conducted a study on "Teachers' attitudes towards the use of information and communication technology (ICT) as a pedagogical tool in secondary schools in Tanzania", in Kondoa District. The study used questionnaire and interview to collect data from a sample of 90 teachers from 12 schools using simple random and purposive sampling techniques. The findings concluded that teachers had positive attitudes towards using ICT as a pedagogical tool but failed to integrate it effectively in their teaching. Also, the findings established that low familiarity with the use of ICT tools as a pedagogical tool among teachers was a problem. Also, Beri and Sharma (2019) conducted a study on teachers' attitude towards integrating ICT in teacher education in Haryana-India. They used a purposive sample of 50 teacher trainers from the different teacher training colleges in the region. Data were collected using researcher-designed interview guide. The findings indicated that the teacher trainers had positive attitude to some extent towards ICTs and its usage in teacher education process. It was therefore germane to examine the relationship between teacher trainers' attitudes and their level of integration of ICTs in the Cameroon context.

Teacher Gender and ICT Use

It is difficult to find literature on gender disparity on attitude towards the use of ICTs in facilitating teaching and learning in teacher training colleges in Cameroon. Experience shows that we have more female than male teachers in our teacher training colleges. Manyilizu and Gilbert (2015) conducted a study on the use of ICT between male and female teachers in secondary schools in Tanzania, the case of Dodoma Municipality. They found that there is a gender imbalance on the use of ICT tools and ICT course attendance in Tanzania. Results also revealed on the comparable awareness and use of ICT applications between the groups of teachers but with larger number of male teachers using ICT tools than females in both science and non-science subjects. Gebhardt et al. (2019) on their part found out that male and female teachers in secondary school do not appear to differ greatly in the extent of their pedagogical use of ICTs. It was therefore worthwhile to examine the scenario among teacher trainers in the Cameroonian context.

Theoretical Perspective

RIPPLES model

The RIPPLES Model (resources, infrastructure, people, policies, learning, evaluation, and support) by Daniel Surry (2002) presents seven required components for best ICT implementation in educational milieu. These are: resources and financial planning, infrastructure development, people factor, policy, learning power of technology-based education within the curriculum, evaluation of the effect of learning outcomes and support and encouragement of faculty in terms of technical and pedagogical support. This model was originally developed for integrating instructional technology in higher education. Of interest to this study however is the third component on the people factor, which deals with beliefs, attitudes and values (Ensminger, 2016). This component points to the essential role that the people within an organization play in the technology integration process (Surry, 2002). The model affirms that positive beliefs, attitudes and values towards ICTs will motivate teachers implement them in teaching and vice versa.

Methods and Procedure

The Cross-sectional survey research design was used for the study. The target population of the study consisted of 290 teacher trainers of the 7 Government Teacher Training Colleges in the North West Region that were purposively selected based on the premise that as state-owned institutions, they would set the pace for the integration of ICTs in pedagogy. Based on the Krejcie and Morgan table for sample size determination (Krejcie & Morgan, 1970), a sample of 165 teacher trainers was selected from the 7 Government Teacher Training Colleges using the proportionate sampling technique. The simple random sampling technique using the ballot method with replacement was then used in each school to select the 165 teacher trainers to complete questionnaire. A 33 item questionnaire designed by the researchers inspired by Al-Zaidiyeen and Mei (2010) in their study on "Teachers' Attitudes and Levels of Technology Use in Classrooms: The Case of Jordan Schools" was used to collect data from teacher trainers. The researchers used research assistants who took 14 days to collect data using two days per school. Teacher trainers were given questionnaires to fill and return the next day. A total of 162 questionnaires were returned (98% return rate). A pilot test was conducted using 30 teacher trainers from three private teacher training colleges within the study area to ascertain validity and reliability of the instrument.

Table 1: Identification of Respondents According to School

	Frequency	Percent	Valid Percent	Cumulative Percent
GTTC WUM	11	6.8	6.8	6.8
GTTC KUMBO	14	8.6	8.6	15.4
GTTC FUNDONG	12	7.4	7.4	22.8

GTTC BAMENDA	59	36.4	36.4	59.3
GTTC BENGWI	32	19.8	19.8	79.0
GTTC NKAMBE	12	7.4	7.4	86.4
GTTC NDOP	22	13.6	13.6	100.0
Total	162	100.0	100.0	

From table 1, 7 Government Teacher Training Colleges in the North West Region were sampled. Out of the 162 teacher trainers who effectively responded from the 7 schools, GTTC Wum had 6.8% of the population, GTTC Kumbo had 8.6%, GTTC Fundong had 7.4%, GTTC Bamenda had 36.4%, GTTC Mbengwi had 19.8%, GTTC Nkambe 7.4% and finally 13.6% for GTTC Ndop.

Table 2: Distribution of Teacher Trainers According to Qualification

	Frequency	Percent	Valid Percent	Cumulative Percent
DIPENII	125	77.2	77.2	77.2
DIPEN I	12	7.4	7.4	84.6
HND	1	.6	.6	85.2
IEG	2	1.2	1.2	86.4
PLEG	13	8.0	8.0	94.4
PCET	5	3.1	3.1	97.5
OTHERS	4	2.5	2.5	100.0
Total	162	100.0	100.0	

Findings

Findings were presented based on research questions and hypothesis.

Research Question 1: What is the attitude of teacher trainers towards the use of ICTs for educational purposes?

Table 3: Teacher Trainer's Attitude towards ICT Use

S/N	STATEMENT	SD	D	N	A	SA	Mean	SDev
19	Using ICTs help organize my work.	3(1.9%)	2(1.2%)	2(1.2%)	106(65.4%)	49(30.2%)	4.2	1.0
20	Using ICTs would render subject matter more interesting.	2(1.2%)	2(1.2%)	2(1.2%)	125(77.2%)	31(19.1%)	4.1	1.0
21	ICTs save time and effort.	3(1.9%)	1(.6%)	1(.6%)	107(66%)	50(30.9%)	4.2	.70
22	Using ICTs makes teaching enjoyable.	4(2.5%)	1(.6%)	5(3.1%)	115(71%)	37(22.8%)	4.1	.70
23	Using ICTs makes me much more productive.	2(1.2%)	1(0.6%)	1(0.6%)	113(69.8%)	45(27.8%)	4.5	4.0
24	ICTs are effective learning tools.	5(3.1%)	2(1.2%)	1(.6%)	114(70.4%)	40(24.7%)	4.6	4.4
25	ICTs enhance students' learning.	5(3.1%)	3(1.9%)	3(1.9%)	113(69.8%)	38(23.5%)	4.0	.77

26	Teaching is better without the use of ICTs.	19(11.7%)	13(8%)	7(4.3%)	100(61.7%)	23(14.2%)	3.6	1.2
27	ICTs do not scare me at all.	9(5.6%)	12(7.4%)	5(3.1%)	108(66.7%)	28(17.3%)	2.8	.98
28	I hate talking with others about ICTs.	44(27.2%)	67(41.4%)	19(11.7%)	20(12.3%)	12(7.4%)	2.5	2.6
29	I get information faster when using ICTs.	3(1.9%)	4(2.5%)	3(1.9%)	102(63.0%)	50(30.9%)	4.2	.7
30	I would like to learn more about ICTs.	3(1.9%)	1(.6%)	2(1.2%)	102(63%)	54(33.3%)	4.3	.69
31	ICTs ease lesson presentation	2(1.2%)	2(1.2%)	3(1.9%)	116(71.6%)	39(24.1%)	4.1	.63
32	I feel confident working with my students in the digital environment	4(2.5%)	4(2.5%)	11(6.8%)	112(69.1%)	31(19.1%)	4.0	.76
33	ICTs enhance lesson evaluation	3(1.9%)	5(3.1%)	8(4.9%)	111(68.5%)	35(21.6%)	4.0	.74
Average		**8.5(5.2%)**	**9.2(5.7%)**	**5.6(3.5%)**	**120.3(74.3%)**	**43(26.5%)**	**59.2**	**20.87**

Table 3 presents findings on teacher trainers' attitude towards the use of ICTs for pedagogic purpose. Teacher trainers were asked if ICT helped them to organize their work. From the responses 3(1.9%) strongly disagreed, 2(1.2%) disagreed and the bulk are those who agreed 106 (65.4%) while 49(30.2%) strongly agreed. The next question in this section sought to know if using ICTs would render subject matter more interesting. Of the 162 teacher trainers who responded, 125(77.2%) and 31(19.1%) agreed and strongly agreed respectively that it made work interesting for them. On the other hand, 4(2.4%) disagreed with the use of ICT making work more interesting while 2(1.2%) were neutral. Thirdly they were asked if ICTs saves time and effort. Those who agreed were 157 (96.9%), 2(1.2%) disagreed while 3(1.9%) were neutral. From the data analyzed 4(2.5%) and 1(.6%) felt that using ICTs does not make teaching enjoyable. On the other hand those who agreed and strongly agreed with the assertion were 115(71%) and 37(22.8%) respectively.

Furthermore, teacher trainers were asked if using ICTs makes them much more productive. In response, 113(69.8%) and 45(27.8%) agreed strongly agreed respectively, while only 3(1.8%) disagreed. Another statement was that ICTs enhanced students' learning. Here, 113(69.8%) overwhelmingly agreed and 38(23.5%) strongly agreed. On the contrary, 5(3.1%) were neutral, 3(1.9%) strongly disagreed and 3(1.9%) disagreed. Also, respondents were to give their opinions on the fact that ICTs enhance students' learning. On this, 5(3.1%) strongly disagreed, 3(1.9%) and 3(1.9%) disagreed and were neutral respectively while 113(69.8%) agreed and 38(23.5%) strongly disagreed. On whether teaching is better without the use of ICT tools, 19(11.7%) of respondents strongly disagreed. On whether teaching is better without the use of ICTs, 19(11.7%) of the respondents strongly disagreed, 13(8%) disagreed, 7(4.3) were neutral, 100(61.7%) agreed and 23(14.2%) strongly agreed. In addition these teachers were asked whether ICTs do not scare them at all. To this statement, 9(5.6%) strongly disagreed, 12(7.4%) disagreed, 5(3.1%) were neutral, 108(66.7%) agreed and 28(17.3%) strongly agreed. Furthermore, on the statement that they hate talking to others about ICTs, 44(27.2%) strongly disagreed, 67(41.4%) disagreed, 19(11.7%) were neutral, 20(12.3%) agreed and 12(7.4%) strongly agreed. Concerning speed of access to information when using ICTs, 102(63.0%) agreed and 50(30.9%) strongly agreed. On the other hand 7(4.4%)

did not agree while 3(1.9%) were neutral. Also, 3(1.9%) strongly disagreed they would like to learn more about ICTs, 1(6%) disagreed, 2(1.2%) were neutral, 102(63%) agreed while 54(33.3%) strongly agreed. On whether ICTs ease lesson presentation, 2(1.2%) strongly disagreed, 2(1.2%) agreed, 3(1.9%) were neutral, 116(71.6%) agreed and 39(24.1%) strongly agreed. Again, respondents were to say if they feel confident working with students in the digital environment. In response, 4(2.5%) strongly disagreed, 4(2.5%) disagreed, 11(6.8%) were neutral, 112(69.1%) agreed and 31(19.1%) strongly agreed. Finally, 3(1.9%) of the respondents strongly disagreed that ICTs enhance lesson evaluation, 5(3.1%) disagreed, 8(4.9%) were neutral, 111(68.5%) agreed and 35(21.6%) strongly disagreed. Summarily, findings indicated that teacher trainers demonstrate a positive attitude towards the use of ICTs in teaching given that a higher average of 120.3(74.3%) and 43(26.5%) of the respondents agreed and strongly agreed that integrating ICTs enhanced pedagogic processes.

Verification of hypothesis

Research hypothesis one

Ho_1: There is no significant relationship between gender and level of ICT use

Table 4: Identification of Respondents According to Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	44	27.2	27.2	27.2
	FEMALE	118	72.8	72.8	100.0
	Total	162	100.0	100.0	

Table 4 indicates that of the 162 effective respondents from the 7 Government Teacher training Colleges, 44 were male representing 27.2% while a majority of 118 were female representing 72.8%.

Table 5: Group Statistics on Gender

	GENDER	N	Mean	Std. Deviation	Std. Error Mean
LEVELOFUSE	Male	44	62.0682	12.11840	1.82692
	Female	117	59.8889	8.63910	.79869

Table 5 reveals that the mean M=62.1, SD=12.1 for male is higher than for female M=59.9, SD=8.6.

Table 6: Independent Sample Test on Gender and ICT Use

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Level of Use	Equal variances assumed	1.210	.273	1.270	159	.206	2.17929	1.71609	-1.20998	5.56856
	Equal variances not assumed			1.093	60.192	.279	2.17929	1.99387	-1.80878	6.16737

From table 6, the Levenes test of equality of variance is not significant .27 meaning that equal variances are assumed therefore meeting the assumption for equality of variance. The t-test shows that there is no significant difference in the means the mean M=62.1, SD=12.1 for male is higher than for female M=59.9, SD=8.6 at the level of significance of 0.00. The means show that there is no significant difference in the level of use of ICT at the level of significance of .21, we accept the null hypothesis that there is no significant difference between gender and teacher trainer's level of ICT use.

Research hypothesis two

Ho_2: There is no significant relationship between teacher trainers' attitude and their level of ICT for educational purpose

Table 7: Teachers Trainers Level of ICT Use for Pedagogic Purpose

S/n	Statement	Never	Rarely	Sometimes	Often	Very often	Mean	SDev
4	Computer	5(3.1%)	39(24.1%)	39(24.1%)	53(32.7%)	26(16%)	3.3	1.1
5	Word Processor	8(4.9%)	45(27.8%)	36(22.2%)	50(30.9%)	23(14.2%)	3.2	1.1
6	Excel	12(7.4%)	50(30.9%)	35(21.6%)	44(27.2%)	21(13%)	3.1	1.2
7	PowerPoint	17(10.5%)	44(27.2%)	32(19.8%)	51(31.5%)	18(11.1%)	3.4	3.5
8	E-Mail	8(4.9%)	44(27.2%)	31(19.1%)	54(33.3%)	25(15.4%)	3.5	2.6
9	WhatsApp	2(1.2%)	34(21%)	25(15.4%)	55(34%)	46(28.4%)	3.7	1.1
10	Internet	6(3.7%)	31(19.1%)	28(17.3%)	56(34.6%)	41(25.3%)	3.6	1.2
11	Simulation and Games	68(42%)	29(17.9%)	26(16%)	25(15.4%)	14(8.6%)	2.3	1.4
12	Drill and Practice	98(60.5%)	26(16%)	18(11.1%)	10(6.2%)	10(6.2%)	1.8	1.2
13	Graphics	107(66%)	31(19.1%)	11(6.8%)	8(4.9%)	5(3.1%)	1.6	1.0
14	CD/DVD	112(69.1%)	30(18.5%)	11(6.8%)	5(3.1%)	4(2.5%)	1.5	1.0
15	Desktop Publishing	120(74.1%)	20(12.3%)	14(8.6%)	5(3.1%)	3(1.9%)	1.5	.90
16	Radio	108(66.7%)	18(11.1%)	20(12.3%)	7(4.3%)	9(5.6%)	1.7	1.2
18	Zoom	120(74.1%)	17(10.5%)	13(8%)	6(3.7%)	6(3.7%)	1.5	1.2
Average		**56.5(34.8%)**	**32.7(20.2%)**	**23.5(14.5%)**	**30.6(18.9%)**	**17.9(11%)**	**35.7**	**18.5**

From table 7, teachers were asked a series of questions to find out if they use ICTs for pedagogic purpose. When asked if they use the computer, a majority of 53 teacher trainers representing 32.7% said they used it often while the minority of 5(3.1%) said never. Also, 50 teacher trainers (30.9%) said they use word processors often while 8 teacher trainers (4.9%) said never. Also, when asked if they use excel, the majority of 50(30.9%) said rarely while a minority said never (12:74%). Another area showing teacher trainers' level of ICT use for educational purpose was power point. From the responses, 44 (27.2%) said they rarely used power point while 51 (31.5%) out of the 162 were using power point often. Equally they were asked if they made use of e-mail. From the data analyzed 8(4.9%) had never used email, 44(27.2%) rarely used it, 31(19.1%) used it sometimes, 54(33.3%) used it often and 25(15.4%) used it very often. With social media, they were interrogated on their frequency of use of whatSapp. Only 1.2% of the teacher trainers had never used the social media but the majority, that is 55(34%) often used and 46(28.4%) used whatsapp very often. Concerning the internet, 6 teacher trainers (3.7%) had never used the internet, 56(34.6%) used it often while

41(25.3%) used the internet very often. Simulation and Games was another ICT facility the teacher trainers could use. From the responses 68 (42%) were those who had never simulated or used computer games to teach while 15.4% were simulating and using games very often. Concerning Drill and Practice which was certainly a strange area of ICT showed that 98 teacher trainers (60.5%) had never used it while 26(16%) rarely use it, 18(11.1%) did sometimes, 10(6.2%) often and 10(6.2%) very often. Another dark area of ICT was Graphics software. A whooping 107(66%) had never used the graphic software, 31(19.1%) rarely used it and only 5(3.1%) used it very often. Furthermore, form the analysis 112(69.1%) had never used CD/DVD for pedagogic purpose, 30(18.5%) rarely did, 11(6.8%) used them sometimes, 5(3.1%) used them often and 4(2.5%) which is insignificant used them very often. For Desktop Publishing software 120(74.1%) of the trainers had never used while 20(12.3%) rarely used desktop publishing software. Radio as an ICT tool had 108(66.7%) as the majority who had never used it for training purpose while 18(11.1%) rarely used it and 20(12.3%) used it sometimes. Finally from the data collected and analyzed Zoom seems to be the least ICT tool used. The table… indicates that up to 120 teacher trainers (74.1%) had never used zoom, 17(10.5%) rarely used it and only 6(3.7%) were using it very often. Cumulatively, the findings indicate that a majority of teacher trainers never used most of the ICT facilities to teach (Mean=56.5, giving overall 34.8%), while a minority (Mean=17.9 giving overall 11%) used these facilities very often. The findings thus indicate a very low level of use of ICTs by teacher trainers for pedagogic purpose.

Table 8: Correlation on Teacher Trainers' Attitude and Level of Use of ICTs

Attitude		Attitude	Level of use
	Pearson Correlation	1	.612
	Sig. (2-tailed)		.000
	N	162	162
Level of use	Pearson Correlation	.612	1
	Sig. (2-tailed)	.000	
	N	162	162

Table 8 showing the Pearson correlation indicates that there is a significant relationship between teacher trainers' attitude and their level of use of ICT at the level of significance of .000. The correlation coefficient of .612 shows that this relationship is positive and moderate, meaning that the more trainers have a positive attitude, the higher their level of use of ICT. The researchers therefore rejected the null and accepted the alternative hypothesis.

Discussion of Findings

Findings indicated that teacher trainers demonstrate a positive attitude towards the use of ICTs in teaching. Majority of teacher trainers were of the opinion that using ICTs facilitated the teaching-learning process. The findings were in line with Ndibalema (2014), Beri and Sharma (2019) who found that teachers in Kondoa District of Tanzania and Haryana-India respectively had a positive attitude towards integrating ICTs in teaching. Teachers' attitudes towards technology can play an important role in the acceptance and actual use of the computer and related facilities in teaching (Ahmed & Kazmi, 2020; Al-zaidiyeen, 2010; Beri & Sharma, 2019; Hassan & Sajid, 2013). Also, the RIPPLES Model (Surry, 2002) holds that positive beliefs, attitudes and values towards ICTs will motivate teachers implement them in teaching and vice versa.

Also, findings of this study revealed that there is no significant difference in the level of use of ICT based on gender. This was in line with Gebhardt et al. (2019) found that male and female teachers

in secondary school do not differ greatly in the extent of their pedagogical use of ICTs. This means that interest in integrating ICTs in teaching among teacher trainers is not influenced by gender. This finding was however contrary to the finding of Manyilizu and Gilbert (2015) found a gender imbalance on the use of ICT tools and ICT course attendance in Tanzania indicating that a larger number of male teachers used ICT tools than females in both science and non-science subjects.

Finally, findings showed that there is a significant relationship between teacher trainer's attitude and their level of ICT use for pedagogic purpose. The more teacher trainers develop positive attitudes towards ICTs, the more they will integrate them in facilitating teaching and learning. This is consistent with the findings of Al-Zaidiyeen, & Mei (2010). This is in congruence with the RIPPLES Model (2002) which affirms that positive beliefs, attitudes and values towards ICTs will motivate teachers implement them in teaching. Negative beliefs and attitudes towards ICTs on the other hand will demotivate use thereby reducing the level of integrating ICTs in pedagogy. Effective teachers should have positive dispositions towards knowledge. This positive disposition is bound to push them use ICTs in enhancing teaching (Arends, 2011).

Conclusion and recommendations

This cross-sectional survey examined the relationship between teacher trainers' attitudes and their levels of use of ICTs in Government Teacher Training Colleges (GTTCs) in the North West Region of Cameroon. The findings showed that teacher trainers portray a very low level of use of ICTs in teaching as a majority indicated they never used the computer and related software for pedagogic purposes. Also, findings indicated that there is a significant relationship between teacher trainer's attitude and their level of ICT use for pedagogic purpose. Finally, it revealed that there is no significant difference in the level of use of ICT based on gender. Attitude towards the use of digital facilities in teaching will influence teacher trainer's level of integration. The more teacher trainers demonstrate positive attitudes towards ICTs, the higher their levels of integration of these facilities in enhancing lesson planning, presentation and evaluation. From these findings, the researchers recommend that teacher trainers should be effectively trained on the integration of ICTs so as to enable them continuously develop positive attitudes towards the use of ICTs in teaching. Also, ICT devices and related infrastructure should be provided in teacher training colleges to ease teacher's task in usage. Finally, a concise policy on the integration of ICTs be instituted to serve as a guide and regulatory text to teachers.

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