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Descriptive Inventory of The Digital Skills of Primary School ICT Teachers in The Bénoué Department (Garoua-Cameroon)

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ABSTRACT: The aim of this study is to take stock of the digital skills of ICT teachers in some primary schools in the Bénoué department. The spread of the digitised world necessarily leads to new habits in professional practice. Including in the education sector. This is why the digital skills of stakeholders in the education community need to be assessed. In the case of priority education zones such as Benoué, what assessment can be made of the digital skills of primary school ICT teachers in this locality? The starting assumption is that their skills are weak. The methodology used was essentially exploratory. The analysis was quantitative. Using Reuchlin factorial analysis, the digital skills of ICT teachers in the schools targeted by the study were broken down into mastery of digital messaging tools, mastery of educational software and mastery of office components. A questionnaire was used to collect data from around a hundred teachers. The descriptive and inferential data analyses were read under the theoretical prism of connectivism (Siemens, 2005). All in all, the hypothesis was confirmed. The lever of continuous training nevertheless discusses this result and formulates recommendations.

KEY WORDS: Competence; Digital; Teacher; School; Benue.

INTRODUCTION

The 21st century is characterised by the globalisation and dynamisation of digital technology. This tool is practically present in several sectors of activity (Hulin et al., 2024). It necessarily leads to new habits in professional practice. Including in the education sector. This is what led UNESCO to say that 'intangible resources such as software, applications, programmes and services are becoming the new raw materials and the real wealth of the knowledge society' (UNESCO, 1997). Digital literacy (Vaquero Tió et al., 2016) is therefore becoming an imperative for professionals, including teachers (Allaire et al., 2009). It is presented as the cornerstone for linking a country's education policies to its development (UNESCO, 2020).

Scientific research (Fonkoua, 2005; Karsenti and Lessard, 2007) seems unanimous in saying that judicious integration of ICT into teacher training in Africa could make it possible to meet the challenge of qualitative and quantitative training. In the field, it is difficult today for a teacher to guarantee performance if he or she has not mastered the use of computers. Educational technologies are making teaching more flexible. Teachers can create different blogs or other applications in which learners can practise to better understand the lessons. Introducing ET into schools means that the learner and the teacher are in constant contact, so that its use can be practical.

1. Study issues

Above all, the school environment must be able to offer a minimum of digital support to the teacher (Benterki and Bouchareb, 2024). But this is not always the case. In North Cameroon, particularly in the Benoué department, pre-surveys and field observations reveal that primary schools lack digital tools and multimedia centres are almost non-existent. The XO computers distributed by the PAQUEB project are stored in warehouses instead of being distributed and used by teachers.

Faced with such an organisational climate, what is the assessment of the digital skills of primary school teachers in this locality? The aim of this article is to examine the digital skills of ICT teachers working in primary schools in the Bénoué department. The present reflection postulates that the digital skills of ICT teachers are weak. Along with Fall (2019), we believe that the teacher's involvement in training in the use of digital technology is crucial. Pedagogical practice will focus on a completely different way of teaching and improving the expectations of the education system. The digitally literate teacher has a vision of learning that stimulates the learner's thinking and creativity, so that he or she becomes a social player. To clarify our problem, the study takes a theoretical and then a methodological pause. The results are discussed.

2. Theoretical framework of the study

There are three stages in the theorisation of the study. The conceptualisation, the review of recent scientific literature and the mobilisation of a theory.

2.1. Conceptualisation and literature review

The notion of competence is polysemous. It can be understood as a capacity for effective action (Perrenoud, 1999), a validated know-how or ability to act (Le Boterf, 2002), which can be mobilised in an internalised way through an integrated set of resources with a view to resolving a family of problem situations (Roegiers, 2005). The lexicon of the social sciences (2004) summarises competence as 'the ability to understand and construct'. Competence is therefore the ability to carry out processes and use existing knowledge to obtain results. So what does digital literacy refer to?

The UNESCO Institute for Statistics (2020) defines digital skills as 'a set of abilities to use digital devices, communication applications and networks to access and manage information'. These skills enable people to create and share digital content, communicate and collaborate with others, solve problems and find creative opportunities. Similarly, the Council Recommendation on key competences for lifelong learning defines digital competence as 'the confident, critical and responsible use of, and engagement with, digital technologies for learning, work and participation in society. It is defined as a combination of knowledge, skills and attitudes'. Digital competence among teachers thus becomes for us, as it is for Stockles and Villeneuve (2017), a set of skills, knowledge and attitudes that teachers must have in order to make critical, dynamic and creative use of ICT in their classrooms. Many researchers agree that integrating digital technology into classroom practices has made it possible to capitalise on new reforms with the aim of developing a number of skills among teachers. (Sang et al. 2010; Tondeur et al. 2012). Indeed, a teacher's digital skills are important for the smooth running of lessons (Knittel and Villeneuve, 2024). Nowadays, it is imperative for teachers to be up to the task of handling all the teaching tools (Patino et al., 2024).

Now that digital platforms, including interactive digital screens, are an integral part of the school landscape (Kamga, Villeneuve and Stockless, 2024), teachers need to demonstrate a good command of these tools (Gomez-Gauthié and Teverini, 2024; Séjourné, Voulgre and Béziat, 2024). The current generation is very familiar with new technologies. They handle smartphones and tablets as well as, if not better than, adults. To maintain their image as schoolmasters, teachers have no interest in showing any shortcomings in the use of new digital solutions for teaching.

To do this, they need a digital culture (Kervella et al., 2024) and cross-disciplinary skills (Germon, 2024). This is what Béché (2017) expresses when he considers that the pedagogical use of digital tools in the teaching and learning process is dependent on the cognitive technical mastery of digital tools, pedagogical scripting, media education and the techno-pedagogical innovation of teachers.

2.2. Theoretical mobilisation

This study therefore examines the so-called digital culture and transversal digital skills among teachers in Benoué. In order to be effective, a theoretical lens was chosen. That of connectivism. This is a socio-informatic theory of learning and skills developed by Siemens (2005). It was born out of the progress of new technologies in general. According to Siemens (2005), it is a necessity for the evolution of classic theories of learning and skills (behaviourism, cognitivism, constructivism and socioconstructivism), adapting to the new realities of knowledge and digital technology.

Connectivism describes the importance of resources belonging to new sciences and information technologies within the learning process. It highlights the many cognitive tasks that can be delegated technologically. She is more interested in the contribution of new technologies to learning and more particularly in the interaction of networked human communities (Alam, 2023). It modifies the behavior of learners, teachers, administrators or even the educational community as a whole (Downes, 2022).

Connectivism calls into question the monopoly of the media in the control of information because with digital tools each teacher is able to produce and share information; it also encourages an articulated reflection on personal learning environments and personal learning networks and learning organizations. Thus, this approach makes it possible to assess the digital skills of teachers (Dziubaniuk et al., 2023).

3. Methodological framework

The present study adopts a deductive approach. The initial premise is that in the Bénoué department, the digital skills of teachers in ICT are low. The results of this study aim to confirm or refute this hypothesis. Given that a large number of schools in North Cameroon do not have the equipment allowing the digitalization of teaching, the study site is limited to the primary schools involved in the PAQUEB project in Bénoué. The State of Cameroon, through the ministry in charge of basic education with the help of the Islamic Development Bank (IDB), launched this project for the Improvement of the quality of Basic Education (PAQUEB) . Through the popularization and distribution of digital tools (computers, tablets, etc.) to around fifty primary schools, its goal is to enable teachers to better accomplish their mission and students to develop skills in digitalization.

The target population of this study is made up of teachers from 15 schools. It is presented in the following table.

SCHOOLS	ENSEIGNANTS
Ep Garoua 1a	12
Ep Garoua 1b	10
Ep Djamboutou 1a	12
Ep Djamboutou 1b	10
Ep Champion 1a	8
Ep Champion1b	8
Groupe scolaire Lapereau	7
Ep Gouroré 1	12
Ep Gouroré 2	8
Ep Bokle 1	10
Ep Boklé 2	8
Ep Houro hourso1	8
EP Houro hourso 2	7
Ep Roumdé 1a	8
Groupe scolaire la Colombe	8
Total	**136**

Source: (Rapport carte scolaire Délégation départementale de la Bénoué (2024))

The table shows that the target population consists of 136 teachers. A sample had to be extracted. To achieve this, simple random sampling was used. The sample size was calculated using the online software packages survey monkey and check market. This was used to determine the minimum size we should obtain. The calculations were made with a confidence interval of 95% and a margin of error of 5%, as is generally considered in the social sciences. The result gives us a minimum size of 101 teachers, or 74.26% of the target population. This result is confirmed by Delpeteau's (2000) sample estimation table, which indicates that for a population of 130 individuals, we should have a sample of 97 individuals, and for a population of 140 individuals, we should have a sample of 103 individuals.

As the study was intended to be essentially quantitative, data was collected exclusively via a questionnaire. Parizot (2012), speaking of the questionnaire survey, mentions that its main advantage is to gather a large amount of information, both factual and subjective, from a large number of individuals. The variable being teachers' digital ICT skills, the questionnaire items are formulated around: mastery of digital messaging tools; mastery of educational software; downloading of online resources and mastery of office components.

As part of the analysis of the internal consistency of the questionnaire developed, the reliability of the scales was calculated in the context of our research using the Crombach alpha coefficient. It was of the order of 0.894 and therefore 'very good' according to the classic measurement scale. The questionnaire was then pre-tested, enabling us to reformulate this question and eliminate the redundant one. The final version of the data collection tool was distributed to 120 teachers in our target population, and we were able to collect 84 questionnaires, 72 of which were valid, so that the sample obtained represented 52.94% of our target population. The field survey was conducted from 5 to 26 May 2024.

To analyse the data, we used descriptive and differential statistics. We used Excel software to determine the numbers and percentages in graph form. Inferential analysis was carried out using multiple linear regression tests to determine the relationship between the variables in our research hypothesis. De Saint-André et al (2010) consider multiple linear regression to be the most appropriate for this type of study. The ANOVA test was used to determine the regression model for teachers' digital skills. This methodological approach produced results.

4. Results of the study

The results of this study are presented from two angles. Firstly, the results of the descriptive analysis of the data collected, and secondly, the results of the differential analysis.

4.1 Results of the descriptive analysis of teachers' digital ICT skills

4.1.1 Mastery of digital messaging tools

When asked about their level of mastery of messaging sites, the participants in our study had a choice between 'high', 'medium' and 'low'. Table 19 shows that the vast majority of respondents (62 out of 84) said they had an average level of proficiency with messaging sites, accounting for 73.8% of responses. They are followed by those who consider their level of proficiency to be low, who account for 13 of the 84 responses collected, or 15.47% of responses. Finally, a very small proportion (10.7%) claimed to have a high level of control.

Table 01: Level of mastery of messaging sites

		FRÉQUENCE	POURCENTAGE	POURCENTAGE VALIDE	POURCENTAGE CUMULÉ
Valide	Élevé	9	10,7	10,7	10,7
	Faible	13	15,5	15,5	26,2
	Moyen	62	73,8	73,8	100,0
	Total	84	100,0	100,0	

Source: personal data under SPSS

Table 02 below refers to the item which aims to know the most popular messaging sites. The figures from the respondents clearly show that the most chosen site is the WhatsApp application with 50 responses. Gmail and Messenger each got 2 responses while Telegram only got 1.

Table 02: most popular messaging sites

	FRÉQUENCE	POURCENTAGE	POURCENTAGE VALIDE	POURCENTAGE CUMULÉ
Valide	4	4,8	4,8	4,8
	Gmail 2	2,4	2,4	7,1
	Gmail, WhatsApp 3	3,6	3,6	10,7
	Gmail, WhatsApp, 6 Messenger	7,1	7,1	17,9
	Gmail, WhatsApp, 2 Messenger, Yahoo	2,4	2,4	20,2
	Gmail, WhatsApp, 1 Skype, Télégramme, Messenger, Yahoo	1,2	1,2	21,4
	Gmail, WhatsApp, 2 Télégramme, Messenger	2,4	2,4	23,8
	Gmail, WhatsApp, 2 Télégramme, Messenger, Yahoo	2,4	2,4	26,2
	Gmail, WhatsApp, 1 Yahoo	1,2	1,2	27,4
	Messenger 2	2,4	2,4	29,8
	Skype, Yahoo 1	1,2	1,2	31,0
	Télégramme 1	1,2	1,2	32,1
	WhatsApp 50	59,5	59,5	91,7
	WhatsApp, Messenger 1	1,2	1,2	92,9
	WhatsApp, Télégramme 1	1,2	1,2	94,0
	WhatsApp, Télégramme, 2 Messenger	2,4	2,4	96,4
	WhatsApp, Yahoo 1	1,2	1,2	97,6
	Yahoo 2	2,4	2,4	100,0
	Total 84	100,0	100,0	

Source: personal data under SPSS

4.1.2. Mastery of educational software

Table 03 below provides us with information on the opinions of participants in our survey on the question referring to their level of mastery of educational software. The same modalities were retained. The opinions of the participants show that the vast majority of respondents say they have an average level of mastery of educational software, i.e. 59 of the 84 respondents, which shows that our sample is mainly made up of teachers who have an average level of mastery.

Then, we have those who believe that their level of mastery is low, representing 19 of the 84 responses collected. Finally, a very small proportion, i.e. 5 respondents, say they have a high level of mastery of educational software. These responses tell us that our respondents do not have great mastery of educational software. It should also be noted that only one person did not answer this question.

Table 03: your level of mastery of educational software

		FRÉQUENCE	POURCENTAGE	POURCENTAGE VALIDE	POURCENTAGE CUMULÉ
Valide		1	1,2	1,2	1,2
	Élevé	5	6,0	6,0	7,1
	Faible	19	22,6	22,6	29,8
	Moyen	59	70,2	70,2	100,0
	Total	84	100,0	100,0	

Source: personal data under SPSS

Table 04: educational software that our respondents master the most

	FRÉQUENCE		POURCENTAGE	POURCENTAGE VALIDE	POURCENTAGE CUMULÉ
Valide		9	10,7	10,7	10,7
	Autres	1	1,2	1,2	11,9
	Google classroom	43	51,2	51,2	63,1
	Google classroom, 4 Autres		4,8	4,8	67,9
	Google classroom, 6 Google meet		7,1	7,1	75,0
	Google classroom, 1 Google meet, Scrash		1,2	1,2	76,2
	Google classroom, 1 Prodigy		1,2	1,2	77,4
	Google classroom, 1 Scrash		1,2	1,2	78,6
	Google meet	16	19,0	19,0	97,6
	Scrash	2	2,4	2,4	100,0
	Total	84	100,0	100,0	

Source: personal data under SPSS

The table above 22 aims to know the educational software most mastered by our respondents. For this purpose, we note that the most used software is “Google class room” with 43 responses followed by “Google meet” with 16 responses. The most interesting thing is that only 13 respondents master two or more educational software. Thus, these data show that mastery of educational software is low because the majority only master one educational software. When we look at the respondent who has mastered 3 educational software programs, the figure drops to 2, also showing this low mastery.

4.1.3. Downloading online resources

Table 05: level to download online resources

		FRÉQUENCE	POURCENTAGE	POURCENTAGE VALIDE	POURCENTAGE CUMULÉ
Valide		4	4,8	4,8	4,8
	Élevé	8	9,5	9,5	14,3
	Faible	13	15,5	15,5	29,8
	Moyen	59	70,2	70,2	100,0
	Total	84	100,0	100,0	

Source: personal data under SPSS

Table 5 refers to the question on downloading online resources, we note that 51 respondents say they have an average level followed by 13 who say they have a low level and finally only 8 say they have a high level.
Thus, we see in light of the table below that the vast majority of respondents have an average level in terms of the level of downloading of online resources. As with the previous questions, a minimal proportion of respondents have a high level. Note also that 4 people did not answer this question probably because they do not want to admit their level of mastery.

4.1.4. Mastery of office components

Table 06: level of mastery of office components

		FRÉQUENCE	POURCENTAGE	POURCENTAGE VALIDE	POURCENTAGE CUMULÉ
Valide		1	1,2	1,2[a]	1,2
	Élevé	5	6,0	6,0	7,1
	Faible	19	22,6	22,6	29,8
	Moyen	59	70,2	70,2	100,0
	Total	84	100,0	100,0	

Source: personal data under SPSS

Table 06 provides us with information on the opinions of participants in our survey on their level of mastery of the officiating components with the same methods as the previous questions. The opinions of the participants show that the vast majority of respondents say they have an average level of mastery of the professional components, i.e. 59 of the 84 respondents, which shows that our sample is mainly made up of teachers with an average level of mastery.
Then, we have those who believe that their level of mastery is low, representing 19 of the 84 responses collected. Finally, a very small proportion, i.e. 5 respondents, say they have a high level of mastery of the office components. These responses tell us that our respondents do not have a great mastery of the office components. It should also be noted that only one person did not answer this question.

Table 07: the best mastered office software

		FRÉQUENCE	POURCENTAGE	POURCENTAGE VALIDE	POURCENTAGE CUMULÉ
Valide		3	3,6	3,6	3,6
	Excel	12	14,3	14,3	17,9
	Power point	3	3,6	3,6	21,4
	Publisher	1	1,2	1,2	22,6
	Word	47	56,0	56,0	78,6
	Word, Excel	11	13,1	13,1	91,7
	Word, Excel, Power point	1	1,2	1,2	92,9
	Word, Excel, Power point, Publisher	3	3,6	3,6	96,4
	Word, Power point, Publisher	2	2,4	2,4	98,8
	Word, Publisher	1	1,2	1,2	100,0
	Total	84	100,0	100,0	

Source: personal data in SPSS

Table 07 refers to the question asking whether the participants were familiar with office software. We can see that the software most chosen is MS Word with 47 responses, followed by MS Excel with 12 responses. 'MS Power Point' and "MS Publisher" each received 3 and 1 responses respectively. What is most interesting is that only 12 respondents mastered two Office components at the same time. This data shows that mastery of educational software is low, as the majority mastered only one educational software. When we look at respondents who have mastered 3 educational software packages, the figure is 5, which clearly shows a low level of mastery of educational software.

4.2. Results of inferential analysis of data on digital skills

In order to test the research hypothesis that teachers' digital skills in ICT are low in the department of Bénoué, let us first set out the statistical hypotheses.

- H0: There is no linear relationship between teachers' digital ICT skills and the development of skills in primary school pupils.
- H1: There is a linear relationship between teachers' digital ICT skills and the development of skills among primary school pupils.

Analysis of model quality

Table 08: Summary of regression models of teachers' digital skills on pupils' skills development

Modèle	R	R-Deux	R-Deux Ajusté	Erreur Standard De L'estimation
1	,466[a]	,217	,171	,32646

has. Predictors: (Constant), level of mastery of the office component, mastery of messaging sites, level of downloading of online resources, mastery of educational software

b. Dependent variable: student skills

Source: Personal data under SPSS 27.0.1

The analysis of table 07 shows the summary of the model and this allows us to note that all of our different predictors are moderately correlated with the dependent variable, namely the development of students' skills with a correlation of around 0.466. Furthermore, the coefficient of determination R-two is of the order of 0.217 which we can describe as low, thus presenting the quality of the model as low.

Furthermore, by looking more closely at the adjusted R-squared which makes it possible to correct the errors due to the number of predictors present in the model, we see that it is of the order of 0.171. Thus we can estimate that our different predictors only explain 17.1% of the variability in the development of students' skills while 82.9% of its variability is explained by other variables which are not in the model.

Analysis of the overall significance of the model

Table 09: ANOVA of regression models of teachers' digital skills on students' skills development

MODÈLE		SOMME DES CARRÉS DDL		CARRÉ MOYEN	F	SIG.
1	régression	1,984	4	,496	4,655	,002[b]
	de student	7,141	67	,107		
	total	9,125	71			

Source: Personal data under SPSS 27.0.1

has. Dependent variable: student skills

b. Predictors: (Constant), level of mastery of office components, mastery of messaging sites, level of downloading of online resources, mastery of educational software.

The ANOVA table allowed us to examine the F statistic of the Fisher test and, from this table we see that the F statistic which is of the order of 4.655 has an added value which is of the order of 0.002 which is well below 0.05 and therefore at the 5% significance level. Thus we can say that there is at least one indicator of the variable, the digital skills of teachers in ICT, which does not have a zero coefficient.

Table 10: Analysis of the marginal contribution of the different indicators

Coefficientsa:

MODÈLE	B	ERREUR STANDARD	BÊTA	T	SIG.	TOLÉRANCE	VIF
(CONSTANTE)	**1,261**	,169		7,470	,000		
MAÎTRISE DES SITES DE MESSAGERIE	**,182**	,106	,262	1,724	,089	,506	1,977
MAÎTRISE DES LOGICIELS ÉDUCATIFS	**,060**	,129	,086	,467	,642	,341	2,928

NIVEAU DE ,002 TÉLÉCHARGEMENT DES RESSOURCES EN LIGNES	,123	,004	,020	,984	,361	2,771
NIVEAU DE MAÎTRISE DU,121 COMPOSANT OFFICE	,118	,176	1,028	,308	,397	2,521

a. Dependent variable: students' skills

Source: Personal data in SPSS 27.0.1

Analysis of the table of coefficients above indicates that there is no problem of multicollinearity between the variables. In fact, the various values of the VIF are less than 4.

Next, analysis of the B coefficients of the different predictors shows us that only the variable 'mastery of messaging sites' has a significant effect on the development of students' skills. Indeed, the Student's T statistic associated with the B coefficient of the variable mastery of messaging sites is of the order of 1.724 which is positive with a p-value of the order of 0.089 which is less than 0.1, which allows us to conclude that mastery of messaging sites has a positive effect on the development of students' skills with a margin of error of 10%.

We can therefore accept hypothesis H0 and reject the alternative hypothesis H1, which states that there is a linear relationship between teachers' digital ICT skills and the development of skills in primary school pupils. This allows us to conclude that for the time being, within the target schools of our study in the department of Bénoué, there is no linear relationship between teachers' digital ICT skills and the development of skills among primary school pupils. This is because teachers' digital ICT skills are weak. However, this conclusion is debatable.

5. Discussion

Teachers' digital ICT skills represent a thematic entry from the factorial analysis. This analysis was based on the research question and the initial premise of the study. While the conclusion is that the ICT digital skills of these teachers are low, it should be noted that these results are in line with the work of authors such as Benali et al. (2018). They also show that the main obstacles to the integration of digital education lie in the lack of techno-pedagogical skills among teachers, the lack of quantity and quality of educational digital resources adapted to the curriculum taught, and finally the inadequacy and poor management of computer equipment.

However, in the light of certain facts and studies, a discussion is in order. The field survey proved Bressoux (2001) and Desjardins (2005) right, for whom there is a difference between the practices declared (what teachers say they do) and the actual practices (what they actually do) in the teaching field.

In fact, during the course of the survey, a number of factors came to light which initially led us to agree with these conclusions. In these schools, there was clearly a lack of willingness on the part of teachers to seek training in the proper use of digital tools in teaching practices. Furthermore, while the schools certainly had a minimum level of equipment, it should be emphasised that these digital tools suffered from the lack of a regular maintenance system and untimely power cuts. Finally, we also observed a lack of involvement on the part of school headmasters in raising teachers' awareness of the use of educational technologies.

However, continuing teacher training is an appropriate lever for developing teachers' digital skills. Some authors such as Béziat (2003) demonstrate the importance of modeling in the continuing training of school teachers. This on-the-job training helps promote meaningful practices among teachers (cited in IsaBelle & Savoie, 2006). In other words, teachers in Benue should continue training either during educational days or organized ICT teacher retraining seminars. It is also possible to open online platforms to retrain them while familiarizing them with digital tools.

However, these teachers seem to participate in a very limited number of ICT refresher seminars firstly because few school principals seem to participate in developing ICT integration strategies to support teachers. In addition, few teachers use ICT educationally in a learning situation (Paré, 2002). In another study conducted in Quebec by Ballivy (2004), 46 future primary and secondary teachers never or very rarely used ICT during their last four-month internship (cited in IsaBelle & Savoie, 2006).

Furthermore, according to Karsenti et al. (2002), numerous studies highlight the fact that new teachers have certain knowledge in ICT, but they have limited technological pedagogical skills to integrate ICT into their classroom practice. This is why continuing education is important. For Béché (2013) techno-pedagogical practices among teachers still remain in the minority in the various tasks carried out. In his study, he demonstrates that to succeed in teaching with digital tools, which is part of educational innovations, the training of teachers in their use is essential for successful learning in our context.

Heer and Akkari (2006) provide a state of scientific literature in the areas of ICT integration and training in teaching practice. According to them, effective integration of ICT cannot be achieved without supporting training. Training teachers to use digital

tools in the classroom seems important in our society where technological innovation is gaining more and more momentum. In the same vein, Tanni (2013) (cited in Benali et al., 2019) maintains that even digitally native teachers (those who grew up with the Web) do not have the knowledge and skills necessary to integrate the information skills in their practices.

Likewise, (Poyet, 2014), underlines that specialized tools in the educational field are used less among future French teachers between 10% and 15%. Finally for Benali et al., (2018) epistemological skills are found in last place among future Moroccan teachers because the latter perceive them as just being means in these types of uses which facilitate the processing of information and the problem solving. Desjardins (2005) developed a model which aims to develop and classify the tools, uses, their impacts, knowledge and skills involved in the integration of ICT in education so as to be able to understand the links that exist between each of these components.

CONCLUSION

This study started from the context which intersects the invasion of professional and living spaces by digital technology and the low internet penetration in Northern Cameroon. In the education sector, she felt that this could lead to certain problems. Taking the case of primary education establishments in Benue, she formulated the question of the assessment that can be made of the digital skills of ICT teachers in primary schools in this locality. The initial assumption which has been confirmed is that his skills are weak.

But to achieve such a result, the methodology deployed was essentially quantitative. Using Reuchlin's factor analysis, the digital skills of ICT teachers in the target schools of the study in Benue were broken down into mastery of digital messaging tools, mastery of educational software and mastery of office components. . The data analyzed in a descriptive and inferential manner were read under the theoretical prism of connectivism (Siemens, 2005).

All in all, if the lever of continuing education makes it possible to discuss these results and consider recommendations, it is also good to say that such results would gain more weight with a complementary qualitative study. This new study, based on the opinions of these actors, will complete this exploration by enriching it through the analysis of why and how.

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