



## Quality Approach and Pedagogical Model of a Distance Training Offer in Period of Health Crisis: The Case of Httc Bertoua

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**Abstract:** The measures related to the confinement restrictions including, among other things, the closure of all university establishments have particularly disrupted face-to-face classes. Faced with its health challenges of another kind, the trainers were forced to offer their lessons on remote platforms. This, in order to perpetuate educational continuity. This is why the trainers had to revise or review the e-learning strategies. In order to better rethink their models and pedagogical approaches using this provision, although very laudable, the student-teachers of HTTC Bertoua slowly came to terms. At the same time, because of the pandemic, student-teachers have incurred additional educational expenses for connecting to the internet and staying confined at home in addition to certain academic, administrative and social parameters. We note the low degree of integration of online teaching for student-teachers despite, the power of mobile telephony (phones of third and fourth generation) and the era of laptops apart from a few, which externalized their feelings of victimization to adapt to digital. We add to this the observation that the various players, due to financial vulnerability, did not have the necessary IT tools for distance training.

**Keywords:** distance learning, pedagogical continuity, student teachers, HTTC Bertoua.

### 1. INTRODUCTION

The educational world in its entirety and more specifically the academic world has not escaped the forced entry of the government decision of March 18, 2020 schematically closing higher educational establishments, particularly the Higher Teachers Training College of Bertoua. Training institutions, teachers, families and learners had no choice but to follow its restrictions stemming from an indescribable and merciless health crisis. In this context, technologies have been assets to be seized and levers to be taken, but above all in the service of educational and didactic intentions (Gautellier, 2000 cited by Djeumeni Tchamabe M., 2011). In addition, this health crisis has affected the course of the training of more than 500 student teachers at HTTC Bertoua. The end of face-to-face teaching has negative consequences on the learning capacities and assimilation of lessons by student-teachers, since the interruption of face-to-face lessons goes well beyond the time limit of the university universe and contributes to deviations such as the excessive consumption of alcohol, prostitution, idleness, the taste for ease. Aware of this, the administration of HTTC Bertoua has taken up the challenge of offering distance training. All these attempt to provide online teaching and learning where there is ICT infrastructure and a reliable internet connection (UNESCO, 2020). The goal of this distance learning is that each learner can have access to a certain amount of necessary knowledge, so that he himself can have the necessary capacity to complete the lessons to be given to him in a context where, it is essential to provide an appropriate plural response to reduce the impact of COVID-19 on the educational system. However, the realization of this ideal already faces a multitude of obstacles, because access to the computer is still the prerogative of a certain class of the population (Wame, 2005). As an illustration, we can cite the unavailability of the connection in places, the under-equipment of the temporary teachers due to the lack of financial means to equip themselves from time to time with an internet connection, in order to calmly deliver the lessons and many other cases. Faced

with these findings, this study poses the **problem of resilience of the education system at HTTC Bertoua**. Despite the fact that the entire society has been impacted economically, socially and culturally by this pandemic, Cameroon has shown great tact and dexterity to control the epicenters of the spread in its health territory. This surge of health policies established by the extremism of donors have even received the approval of major global health authorities like the WHO, which has also known Cameroon's efforts to limit the adventure of the Covid-19 disease. These commendable efforts quickly met with sparkling success in education as the government undertook the reopening of schools with the primary concern of ensuring the safety and protection of the university population of HTTC Bertoua. Thus, the student-teachers having spent about three months in their homes have finally returned to their training centers. In the context of this study, the research hypothesis posits that the quality approach and the educational model are adequate methods for a better offer of distance training during the Covid-19 period. The research objective is to demonstrate the link that exists between the quality approach, the educational model and a better offer of distance training in the context of Covid-19. For this, it is more urgent to question ourselves firstly on the application of an adequate pedagogical model to compensate for the compromise of the coverage of academic programs, secondly on the contribution of ICT in the dissemination of online teaching, in full swing outbreak of the Covid-19 pandemic at HTTC Bertoua; thirdly, to detect the insufficient competence of teachers and student-teachers in the use of ICT; fourthly to show the murky role played by the unavailability of electricity and the absence of optical fiber in the villages where the student-teachers resided and fifthly to present the current state of the reopening of lectures and teaching in HTTC Bertoua in this period when Covid-19 dictates its law.

## **2. METHODOLOGY**

### **2.1. Documentary Research**

This quantitative method has been found to be very suitable for collecting information. They constitute on this occasion, a research method in research sites being a new study linking educational models in Covid-19 situation. Documentary research has provided access to certain data deemed suitable for the writing of this scientific article. As an illustration, we can cite Cairn.info which made it possible to obtain scientific articles (Bignoumba Backouyanga D.M., 2013). Some documents found on internet also offered other types of documents (vulgar), but which were ultimately found to be relevant to our research. The internet research was carried out using the keywords of our research topic and the vocabulary that revolves around educational models in Covid-19 situation.

### **2.2. The Survey of Learners through the Questionnaire**

The quantitative approach is an approach which analyzes quantifiable data. Educational research has overtime been dominated by quantitative methods (Baron & Dane, 2007). In this study, it appeared to us to use it. This being the case, a questionnaire was administered to 150 student-teachers. It is important to note that last year HTTC Bertoua had an estimated mother population of over 800 student teachers. They came from the fields of Philosophy, Earth and Life Sciences (SVT), Earth and Environmental Sciences (STE), French Modern Letters (LMF), Sciences of Education (SCED), Mathematics, Foreign Letters, Guidance and counseling (Table 1). Student-teachers who were trained during the 2020-2021 academic year were eligible, as well as those who were in the fifth year (**70.2%**) and in the third year (**19.2%**), a period during which the first wave of Covid-19 peaked. However, in a closer remark, this, results to a strong feminization of the sample made up of 96 people, i.e (**63.6%**) and a low masculinization of the sample made up of 54 people, i.e (**35.8%**). The objective being that, they describe their work environments and give us their impressions of the quality of the teaching provided to them. This elaborated questionnaire had as constituent elements open questions from which we conducted interviews with learners. They are divided into three parts, the constituent elements of the questionnaire of which are: the characteristics of the learner, the work environment of the learner, the learner's perspective on distance learning.

**Table1.** Number of questionnaires distributed to student teachers

Options	Specialities	Teaching Cycles				
		Level 1	Level 2	Level 3	Level 4	Level 5
		Number	Number	Number	Number	Number
	Scientific specialities	15	15	15	15	15
	Arts specialities	15	15	15	15	15
	Total of questionnaires distributed	30	30	30	30	30
	Total of questionnaire validated	30	30	30	30	30

Source: Field survey, January 2022.

### 2.3. The Interview Guide for Teachers

Necessarily speaking, the non-directive interview guide permitted us to have an exhaustive reading and more broadly the holding of lectures during this period when the schools were closed and where the teachers alone had used pedagogical tricks to pass their teachings. It aimed at analyzing the practices of teachers with ICT as well as techno-pedagogical devices, the skills of teachers and that of learners (Djeumeni Tchamabe M., 2011). To carry out this survey and carry out our research, we made sure to distribute the questionnaire personally and directly to the participants. However, our investigation was not without difficulty. The biggest qualm encountered was the difficulty faced in taking back the filled questionnaires from most of the teachers, which forced us to make repeated visits to this training school and which prolonged the duration of this field survey (Mastafi, M. 2014).

### 2.4. Analysis of Statistical Data Collected in the Field

The data collected were previously coded and prepared using the SPSS 21 software. Subsequently, descriptive statistics for the various variables were also carried out through the numbers. This was in order to understand the link between the educational model and the management of Covid-19 within HTTC Bertoua. Thus, several parameters were analyzed and taken into account such as sex, age group, sector and even level of education, etc.

### I. Brief Reminder on Covid-19

Coronaviruses are large families of viruses. The latest coronavirus to be discovered is responsible for the 2019 coronavirus disease WHO dubbed COVID-19. It was first identified in December 2019, in the city of Wuhan in China. Recalled by the Chairman of WHO, the epidemic of the new coronavirus is deemed to be a public health emergency of international concern. Cameroon then deploys a whole arsenal of screening and treatment throughout the country, as health care facilities risk becoming overcrowded with cases of COVID-19 associated with high levels of hospitalizations and deaths<sup>1</sup>. From its etymology, Covid-19 means: Corona (Co), Virus (Vi), disease (d) and the number 19 indicates the year of its appearance. According to the WHO experts who coined the name, corona comes from the family of viruses that are shaped like a crown. This virus from the East has not spared the countries of sub-Saharan Africa, especially Cameroon. Patients with this pandemic develop the following common symptoms: headache, malaise, runny nose, cough, sore throat, shortness of breath, chest pain, muscle pain. And for the most severe index cases the symptoms are high fever, breathing difficulties, pneumonia, kidney failure (Figure 1). It should also be remembered that, the three possible ways of being contaminated by someone can be by droplets (when a person coughs or sneezes), by contact (when a person touches an object / surface or a part of the body contaminated, then puts his hands in his mouth, eyes, or nose), by spray (in the air).

<sup>1</sup>Nkafu Policy Institute / Bulletin 001 on Covid-19 in Cameroon <https://nkafu.org/blog-post/bulletin-001-sur-le-covid-19-au-cameroon/>

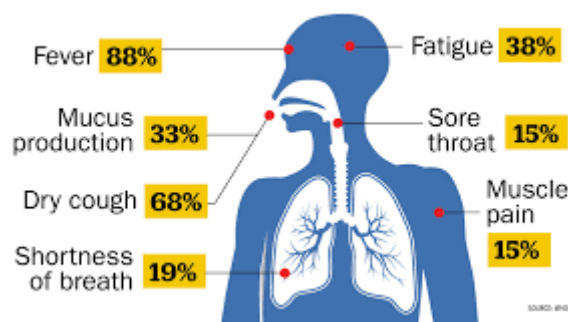


Figure1. Symptoms of the coronavirus

Source: Field survey, 2022

## II. A Brief Clarification and Circumscription of the Concepts

### *The Concept of Quality Approach*

Since the 1920s, the concept of quality has continued to evolve until now. It has a market or marketing vision. The ISO9000: 2000 standard defines quality as: "the ability of a set of intrinsic characteristics of a product, system or process to meet the requirements of customers and other interested parties". According to the ISO 9000 standard, the quality approach is: "the organizational approach allowing permanent progress in the resolution of non-qualities. It is a participatory approach, that is to say in which the whole of the company must necessarily participate and therefore necessarily be brought to the highest hierarchical level" (Stassi P., Archimbaud., 2012).

More academically, it is clear that the term "quality approach" refers to the operational organization implemented in order to achieve the objectives set by the teachers of a school or university. It therefore necessarily requires a strong involvement of the administration of the school or university down to the level of teachers, since it often involves organizational changes.

### **The Concept of an Educational Model**

According to Mohamed Khaldi (2010), speaking of a model does not mean that we introduce the idea of a standard (lesson-model), but rather that we seek to model practices, in order to engage in a coherence that cannot appear at the first edge. For the author, it is in all cases an effort of theoretical construction, in order to better account for the overall meaning of the elements or observable practices.

For Mohamed Khaldi (2010), a pedagogical model must examine things on a more abstract level by going beyond the material characteristics observable in a session, which can obscure an understanding of what is really at play.

In the context of this article, the pedagogical model would be seen with a view to allowing distance learning procedures implemented by the management of HTTC aimed at putting the learner at the heart of knowledge exchanges.

## III. School Closure Calendar in Cameroon

The arrival of COVID-19 in Africa on February 14, 2020 left schools and universities inactive. They were also the first institutions that attracted the most attention. In Cameroon, a country of more than 25 million inhabitants located in Central Africa in the heart of the Gulf of Guinea, the first cases are reported at the beginning of March 2020 and on June 15, 2020, there are already 10,140 people infected and 277 deaths<sup>2</sup>.

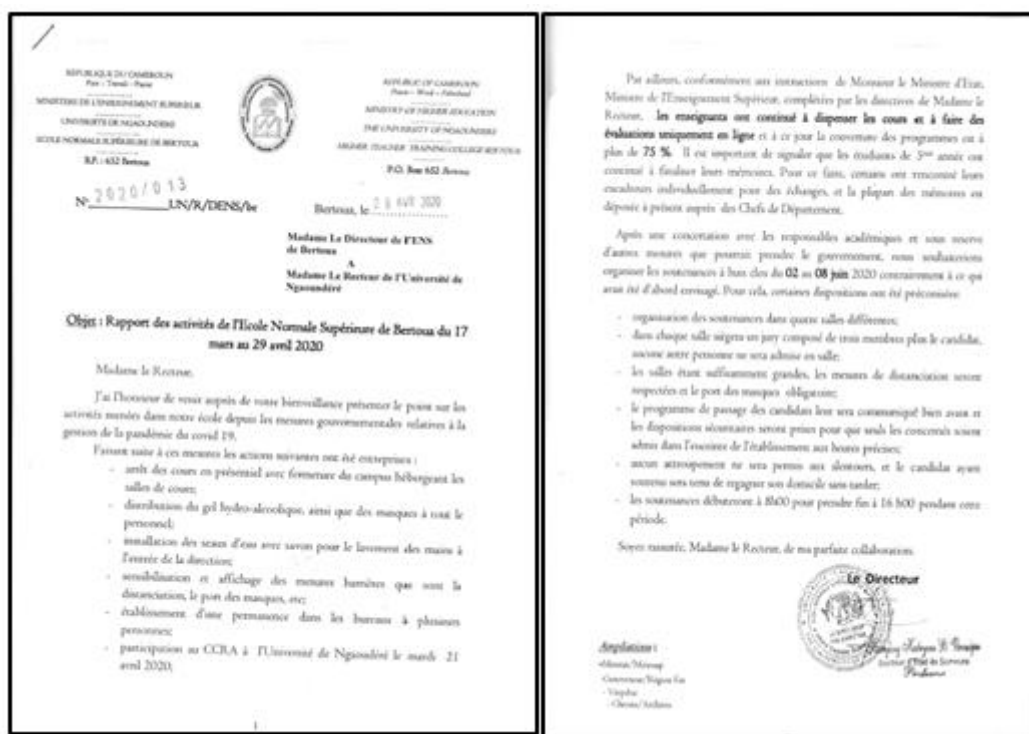
Therefore, on March 17, 2020 the Head of Government of Cameroon held a special declaration stipulating a government response strategy to the coronavirus pandemic (COVID19). In the third point of its declaration, the Cameroonian government decides that: "all public and private training establishments under different levels of education, from kindergarten to higher education, including vocational training centers and large schools will be closed". This decision directly affects the

<sup>2</sup><https://www.coronavirus-statistics.com/stats-country/coronavirus-number-of-cases-in-cameroon/>



At most, the virtual classroom constitutes a real network of interactions between the teacher, the learners and the knowledge (Djeumeni Tchamabe M., 2011), given that, the work focused on face-to-face teaching cannot suffice today. (Gautellier; 2000). One reason why the teachings in the age of technology were imperative at HTTC Bertoua is because they made it possible to mitigate the effects of COVID-19(**Photographic plate: 1**). Also, these online lessons guaranteed pedagogical sustainability during times of confinement, precisely when the student teachers were plagued by many deviations, namely: idleness, loitering in social networks, alcohol dependence and to smoking. The list is far from exhaustive...

As a result, it was therefore urgent to observe the mechanisms for learning or acquiring know-how online in order to allow much more flexible and accelerated remedial courses (UNESCO, 2016). Moreover, more and more, studies are looking at the situation of the significant risk of Covid-19 and the adaptation of an educational model to deal with it (UNFPA / UNFPA, 2020; Santelmann P., 2020). These studies agree and are unanimous on the fact that only the widening of the angles of acquisition of knowledge, the management of the class through group or individual work, distance learning and evaluation methods in line are the devices necessary to curb the deficits in teaching skills.



**Photo plate1.** Report on the activities of the Higher Teacher Training College of Bertoua from March 17 to April 29, 2020. This report talks about the arrangements put in place by management to allow academic programs to be covered during the rise of the Covid-19.

**Source:** Field survey, April 2020.

These activities implemented at the Higher Teacher Training College, Bertoua were aimed at attempting to complete university learning programs (courses linked to training at the ENS) which are disproportionately ambitious in contradiction, even with the objective four of the sustainable development goals which advocate more sustainable and adapted educational monitoring.

It must also be said that the educational act should then be part of another much more expert vision in this sense that the confinement and isolation of learners should ensure that the training takes into consideration several multifactorial factors (motivational, psycho-sociological, cultural and cognitive). This supposes on the part of the teachers a mastery of the pedagogical multi-modality and of the range of methods appropriate to the content of the lessons. (Huot, A. 1999; Santelmann P., 2020). So:

*"Confinement will therefore be an opportunity for university teachers to observe many dropouts of learners, weaned from the learning group, and the involvement of a minority, certainly motivated, but having a more" autonomous "approach to development knowledge and little open to contributions from the collective" (Santelmann P., 2020).*

On the other hand, it is observed that during this period the teachers had difficulties integrating on the motivational level, learning styles which were thought to be well aligned with the cognitive profiles of the people who preferred distance training compared to those who preferred the traditional courses. Thus, according to surveys revealed in the field, the learning method used during this period did not contribute to the development of the acquired skills and competences of student teachers. That is to say **66.2%** of the respondents who affirmed this pedagogical insufficiency on the part of their teachers.

Although it must be recognized that teachers during this period were more active in organizing tutorials, almost all of the student teachers (**82.1%**) found it extremely difficult to work on their tutorials online with their classmates.

#### **V. Contribution of ICTT<sup>4</sup> in the Dissemination of Online Teaching, in the Midst of the Outbreak of the Covid-19 Pandemic at HTTC Bertoua**

Today, because of ICT, humans can communicate without having to travel across the planet (Dube, 1999). The planet would even be qualified by some as globalization and a "global village" (Tchameni, 2007), which is why, in front of its computer tool: *"you can educate yourself and be trained: choose your university, register there, ensure all its administrative, pedagogical and didactic formalities follow its courses, participate in debates and conferences submit to evaluations"* (Djeumeni Tchamabe M., 2011: 20). By the way, the term ICT includes three concepts: one of technology, the other of communication and another of information (Basque, 2005). During times of crisis, such as that of Covid-19, many teachers are actively engaged in the use of educational informatics. The aim is to enable the use of ICT in teaching and to encourage student teachers to use it as a tutorial. These technologies appeared to be ideal pillars in promoting the sharing of knowledge in groups.

The use of information and communication technologies for teaching also makes it possible to be more comfortable, in particular through more individualized or more collaborative exercises, more free and richer (Lietart A., 2015 ). As a result, several operational platforms were created as a priority by the heads of departments and by level-class delegates. On the one hand, there were familiar platforms like (WhatsApp<sup>5</sup>, Zoom<sup>6</sup>, Telegram Messenger<sup>7</sup>) which are more original teaching methods and more suited to the health context in vogue. These platforms engaged the teacher and the learner on a daily basis through online learning processes.

Indeed, e-learning<sup>8</sup> and e-teaching were more or less acceptable to student-teachers and teachers. On the other hand, it was common to observe the organization of tutorial groups, personal work of the student and the explanation of courses via voices and videos. On the other hand, it must be said that when teaching online, teachers and learners encountered seizing of electricity and poor internet connection, i.e. **74.8%** of respondents who said they did not have a quality internet connection during this school closing period.

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<sup>4</sup>Information and Communication Technologies for Teaching

<sup>5</sup>WhatsApp is a cross-mobile application, owned by Facebook, which provides an end-to-end encrypted instant messaging system both over Internet and over mobile networks.

<sup>6</sup>Zoom, owned by US-based teleconferencing services company, Zoom Video Communications, provides a remote conferencing service that combines video conferencing, online meetings, chat and mobile collaboration using priority applications.

<sup>7</sup>Developed by Telegram Messenger, Telegram is a Russian messaging application created in 2013 and in which conversations are end-to-end encrypted.

<sup>8</sup>Appeared in 1990 to designate the evolution of distance education based, at least in part, on the use of Information and Communication Technologies (TICS), the term e-learning refers to the entire field of educational technologies, used in class as well as at a distance, for all levels of education, in initial training as well as in continuing training (Chaptal A., 2005 p.60).

In addition, the absence of optical fiber has been noted in some places where learners live. This state of affairs prevented them (62.9%) from being connected to regular class hours. Despite all this, some teachers and student teachers had difficulties in using these technologies, hence the problem of their incompetence.

#### **VI. Insufficient Competence of Teachers and Student-Teachers in the use of ICT**

The changes in the world towards the information society have profound implications for education systems. In this regard, ICTs are perceived, by several observers, as means of making it possible to meet these challenges (Cynthia Guttman, UNESCO, 2003). Its use is imperative in our context of health crisis. Its use does not seem to be popular to everyone. According to numerous empirical observations, the implementation of these measures is very slow and the use of ICT at the Higher Teacher Training College, Bertoua is still very limited. To this sub-part raises the problem of insufficient teacher training, or the non-adherence of all stakeholders (such as the learners themselves) to the online training process. This situation can be intrinsically catastrophic for the pedagogical model supposed to be set up.

Failure to master ICT tools can lead to misdirection of ineffective teaching methodologies poorly suited to the abilities and requirements of learners. This observable situation finds its explanation at several levels:

**At the level of the competence of the teacher:** more particularly, the acquisition of competences or the lack of competences among the teachers constitutes the most important factor which influences the success of any project of pedagogical integration of the TIC (Alwani and Soomro, 2010; Pelgrum and Anderson, 2001; Pelgrum and Law, 2004) since many teachers are reluctant to use ICT and feel anxious when using the computer in presence of student teachers, due to the lack of ICT skills and knowledge at home (Mastafi, M., 2014).

So far as this constitutes the main reason which pushed teachers not to use these technologies in teaching (Balanskat et al., 2006), in reality, it appears that despite the enormous investment of financial resources and human resources, the offer of in-service training remains insufficient and does not provide teachers with the necessary skills to enable them to use ICT effectively in their teaching practices (Mastafi M., 2014). One of the main results of the present study is that in general, the majority of teachers (48%) in our sample have never used ICT in the classroom, 21% use them occasionally and only 30% use them more often. This same observation was observed by Mastafi, Mohamed (2013) in the Moroccan education system. To this extent, it is therefore essential to have short training sessions from time to time, also admitting that this ICT training kit includes short-term retraining, thus reducing the impact of risks specific to health crises (INEE MS, 2010)<sup>9</sup>.

**At the level of the competence of the student-teacher:** Despite the possibilities offered by general distance education and online, the preference of student-teachers remains face-to-face courses since with face-to-face, it is impossible to imagine an educational activity without interactions. Reason why, they found this remote training not accessible (50.3%). This meant that they did not easily understand the lessons given during this online period, i.e 78.1% of the respondents in our sample. Yet during this period, they had skills in using ICT in the sense that the majority had an ICT tool such as a computer (61.6%).

Despite the technical constraints, the latter (50.3%) recognized that the methods used to deliver the lessons would serve them methodically in their teaching careers. In any case, in Africa and more particularly in French-speaking countries, the main obstacle encountered in the use of ICT in education among learners lies in the lack of software, computers, electricity, etc. (Karsenti, 2009). However, the Educnet site points out that there is a typology of the educational uses of ICT in five categories namely: ICT for exchanging, communicating, collaborating and cooperating; ICT for producing, creating and publishing; ICT for researching and obtain documentation; ICT for training and self-training; ICT for facilitating and organizing (Basque Josianne, 1996; cited by Mastafi, Mohamed 2013). However, financial and technical precariousness constitute obstacles for student-teachers (44.4%) who have difficulties in obtaining an adequate ICT tool adapted to their study environment.

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<sup>9</sup>[https://toolkit.ineesite.org/resources/ineecms/uploads/1004/Guidance\\_Notes\\_on\\_Teaching\\_and\\_Learning\\_EN.pdf](https://toolkit.ineesite.org/resources/ineecms/uploads/1004/Guidance_Notes_on_Teaching_and_Learning_EN.pdf)



This amounts to asserting that, the successful integration of ICT in education can contribute to improving the quality of teaching and learning, to increasing the school success rate, to strengthening the motivation of learning and perseverance in the efforts made by learners (IICD International Institute for Communication and Development, 2007).

**At or within the institution:** It is important to point out here that several studies have been done with the aim of identifying and classifying these obstacles. The British Educational Communications and Technology Agency (BECTA), in its report, published in 2004 identifies obstacles relating to the institution (obstacles at the school level), such as lack of effective training and lack of access to resources. However, the university teaching environment is supposed to be strongly shaped by a process of technicalization, but also of computerization.

Principally, *“the absence / presence of cutting-edge technological tools in the classrooms does not primarily depend on the technological competence of the teachers and teacher-researchers but on the means and the capacity of the universities to equip the majority of the classrooms. with these tools”*(Barna J. 2011).

Because of very limited educational resources, HTTC Bertoua as an educational organization tries hard to encourage the development of new skills. This is done by promoting as much as possible the integration of ICT in educational practices as an essential element in the modernization process insofar as the use of ICT makes it possible to enrich educational methods and revitalize quality approaches.

## VII. A Massification of Distance Learning within the HTTC in Times of Health Crisis: a Framework for Measuring the Rate of Integration of ICT into Teaching Practices

In this subsection, it would be imperative to endeavor to measure the rate of integration of ICT and to perceive the pedagogical practices implemented and developed among students and teachers. To implement it, the LoTI (Levels of Technology Implementation) model will make it possible to make a link between the pedagogical approach followed by the teacher and the degree of integration of the technology in his practices according to a scale (Moersch, 1995). The author identifies six levels in this case, namely three of which we will develop in this study:

- *Awareness:* the computer is used by the teacher outside the classroom for his own use. At HTTC Bertoua, almost all permanent teachers have a laptop for research related to courses and scientific publications, except for the temporary teachers questioned (35%) who did not personally have one, but used the laptops present at the Center of Resources for Educational Technology (CRTE) (**Photo plate: 2**).



**Photo plate2.** Ranges of computers located at the CRTE of ENS Bertoua.

**Source:** Manuel Kamgang photos, March 2022.

- *Penetration:* ICTs are used to support learning activities. In this case, they reflect the adaptation and reform policies put in place by the HTTC institution in Bertoua. This to allow the actors involved in the education sector to integrate or assimilate it.

- *Integration:* It is common knowledge that the search for educational information through Internet remains the main source of documentation for almost all students. This because, already from their homes, they can consult their documents which are transmitted by their teachers despite, sometimes the scarcity of financial precariousness and the absence of optical fiber or even the blackout in places.

In short, HTTC Bertoua, like any educational, formative and participatory element of society, has not escaped the advent of information and communication technologies (ICT). The advent of the Covidian health crisis has been and remains very devastating on the education of student-teachers. This is how ICT became part of the teaching methods at HTTC. In the various literary and scientific training courses, online dispensing and learning have been partially set up. These educational precautions were taken with a view to preventing forced vacations for student teachers and to a lesser extent for teachers. The Covidian health crisis has exposed in broad daylight the adaptation and innovation mechanisms that HTTC Bertoua has been able to set up as a response strategy. In doing so, educational continuity was seen as very necessary and imposing in this time of confinement. That is why educational platforms, online seminars have been created to introduce new teaching methods into educational practices.

### **VIII. Seizing of Electricity and the Lack of Optical Fiber: for student teachers living in poorly served villages**

Teaching and learning underlies a perpetual and lasting interaction that must exist between teachers and learners. This educational relationship in a period of Covidian crisis lies in the contribution that ICTs make to the two partners in the education system with the aim of enabling them to take lessons at the same time. During this period of the first wave of Covid-19, hourly accommodation efforts were imposed on learners.

Yet in a context of load shedding and the absence of optical fiber, electricity cuts are constant. For a decade, there has been an energy supply crisis in the city of Bertoua which results in regular and recurring power cuts on average twice to three times a day, especially in the dry season, which has a negative impact on learner learning. Hence a real need in terms of meeting the energy demand of households even better, that of the educational body, more specifically in the peri-urban and rural areas where they lived during the peak period of the health crisis.

In fact, the untimely cuts of electricity were a handicap for the student teachers to be able to connect to the Internet, especially since due to the confinement, many people worked from home. This lack of electrification has been compounded by the unavailability, irregularity and instability of the cyber supply. These situations have contributed in disrupting educational programs meant to be covered and completed.

The inaccessibility of the internet offer is the deplorable consequence of its network, the immediate consequence being: *"It was difficult for teachers to explain lessons and answer all learners' questions in the allotted time. In addition, old-school teachers lacked digital tools. Hence the difficulties to perform"*(Siyam S., et al., 2020). It is therefore understandable with the author's logic that the organization of the courses was shaken up a bit on the pretext that the courses should have been allocated more time than face-to-face. It would be wise to share the observation that the integration of ICT in education is a complex process which encounters several obstacles even within Western countries.

### **Current State of Reopening of Schools in Cameroon: the case of HTTC Bertoua**

Regarding the terms of redeployment of student-teachers in classrooms, the indicative date of resumption of classes on June 1<sup>st</sup>, 2020, has been indicated by the government. In addition, specific measures have been taken by the administration. The school administration has made it their hobbyhorse. These measures deployed remains in view of the scrupulous respect of barrier gestures to learners.

Once in the campus classrooms, they are systematically subjected to preventive measures such as distancing (at least a meter and a half between people), frequent washing of hands with soap and water or with a hydroalcoholic solution and wearing a mask(**Photo plate: 3**).



**Photo plate3.** Hand washing facilities on the campus of HTTC Bertoua

**Source:** ManuelKamgang photos, February 2022.

The administration of HTTC also plans to strengthen more intense local communication and awareness actions at the different levels by creating a health club in each sector. In practice, this involves voting for a health delegate and his deputy. His task would be to ensure that all his comrades have hydro-alcoholic gel, to make large picture posters within the campus. This, in order to make the student teachers aware of the dangers of not using the muffler.

### 3. DISCUSSION

The quality approach and pedagogical model in this context presents a plurality of educational actors, which then falls within the vision of the school which advocates distance training in this period of health crisis. However, this diversity of actors faces a deficit in the teaching / learning process of the distance training offer. In other words, the professional practices of the teacher are very unlikely to have a significant impact on the education of student teachers at a distance. However, it is established that in seeking educational information, Internet is the main source of documentation for **94%** of students. The documents consulted from their home are used to understand the course and to prepare the related activities since in our context, very few of them use the library to read their courses. For some researchers, it is a matter of questioning the role of the teacher in the digital age which requires a new pedagogical culture, even if some scientific authors undermine his teachings online and favor face-to-face teaching.

Thus according to Lebrun (interview in Peltier, 2010), the nature of the subjects taught requires more demonstrations and the presence of the teacher to bequeath an immutable knowledge such as laws and theorems, which would explain why teaching-transmission is very present in such disciplines. On the other hand, he forgets that the paths and profiles of teachers influence their teaching practices.

Indeed, the problem lies elsewhere, because after a decade of experimentation with ICT, the visible efforts in all higher education establishments have focused more on the development of vocational and technical training without paying so much attention to the training and support for trainers, the establishment of digital resources and the strengthening of human resources with skills necessary for the proper integration of ICT into teaching practices.

### 4. CONCLUSION

At the end of this study, it was a matter of raising that the ICTs are currently unavoidable in this period of health crisis. However, the technological infrastructures, the pedagogical models and the study conditions are not sufficient to provide the necessary support to student-teachers in the context of online teaching and learning, who are already experiencing enormous learning difficulties again in a context of impoverishment, where very few student-teachers have the means to acquire a good internet connection. However, knowledge must be built by collaborating with others, "Learner-

*Teacher*" and *"Learner-Learner"* interactions must be privileged, the teacher must intervene to guide and disseminate feedback on the work. Indeed, in our context, online teaching was sometimes inaccessible through the absence of an ineffective connection (42.4%) which results in the present case by the non-participation of some (27.2%) and even to the limit indigestible for some student-teachers. It is for this reason that several student-teachers had expressed the wish for face-to-face teaching which was impossible at that time.

Despite methodological deficits, the objective of the study, which was to *"demonstrate the link that exists between the quality approach, the educational model and a better offer of distance training in the context of Covid-19"* was achieved. The research hypothesis which maintained that: *"the quality approach and the educational model are adequate methods for a better offer of distance education in times of Covid-19"* has been realized.

It appears that this study has produced basic results aimed at better showing the application of an adequate pedagogical model to compensate for the compromise of the coverage of academic programs. This made it possible to demonstrate the contribution of ICT in the dissemination of online teaching, in the midst of the outbreak of the Covid-19 pandemic at HTTC Bertoua. However, dysfunctions were observed: in particular the insufficient competence of teachers and student-teachers in the use of ICT. Ultimately, for better competence and performance of teachers and student-teachers, educational models must focus on the development of more suitable educational devices during this disastrous period of health crisis.

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