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Educational continuity: exploring teachers', students' and parents' utilization of information and communication technology for interaction amidst the COVID-19 pandemic in Ghana

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ABSTRACT

The disruptions in the field of education brought about by the COVID-19 crisis prompted nations worldwide to enact distinct educational response plans aimed at guaranteeing the continuity of curricular activities. The study sought to explore the utilization of information and communication technology (ICT) tools by teachers to engage with their students and parents, with the overarching objective of facilitating effective curriculum continuity within selected second-cycle educational institutions in Ghana. This study employed a mixed-methods approach, specifically descriptive survey method and phenomenology. Data were gathered through questionnaires, focus group discussions, and interviews, with a total of 650 participants comprising parents, teachers, and students participating in the study. Descriptive statistical tools were used to analyse the quantitative data. Qualitative data, conversely, underwent manual analysis via a thematic approach. The findings of this study revealed a notable deficiency in the degree of interaction occurring between teachers and their students, as well as between teachers and the parents of these students. Consequently, it is recommended that governmental bodies and other relevant stakeholders actively promote enhanced interactions between teachers and parents. Moreover, it is advised that effective mechanisms for assessing student progress during crisis be instituted to further ensure the efficacy of curriculum continuity efforts.

1. Introduction

Amidst the emergence of the COVID-19 pandemic, a sweeping imperative materialised, mandating the widespread closure of educational institutions on a global scale as a critical measure to mitigate the contagion's proliferation. The United Nations Educational, Scientific and Cultural Organization (UNESCO) documented that by mid-May 2020, the closure of schools had impacted over 1.2 billion students encompassing all strata of the

educational hierarchy worldwide (UNESCO, 2020). Emanating from a survey conducted by eLearning Africa (2020), encompassing 1,649 respondents from 52 African nations, a pervasive phenomenon of school closures transpired across the African continent in response to the pandemic. A remarkable 97% of the surveyed respondents attested to the implementation of school closures within their respective nations. Furthermore, the study's authors underscored that approximately 92% of Africans concurred with the imperative and judicious nature of the school closure measures (eLearning Africa,

2020). The resultant global disruption to the educational landscape, precipitated by the COVID-19 crisis, represents an unparalleled exigency, with the attendant ramifications on the curriculum being profoundly profound (WHO, 2020).

The closure of educational institutions engendered a conspicuous awakening among governments across the globe, prompting a concerted effort to devise mechanisms for ensuring curriculum continuity via a spectrum of educational responses. Curriculum continuity, alternatively designated as educational continuity, denotes "the overarching term encompassing educational practices instituted in the event of protracted school closures" (Pennsylvania Department of Education, 2020, p. 1). The fundamental aim underpinning curriculum continuity is to facilitate the continued cultivation and honing of students' skills during their protracted absence from the conventional school milieu, where traditional face-to-face pedagogical interactions are the norm.

Within the purview of the government of Ghana's response to the pandemic, a comprehensive initiative was unveiled, titled the "Covid-19 Coordinated Education Response Plan for Ghana" (CCERPFG). Recognising the pivotal role of the school-family nexus, the CCERPFG advocated for parental involvement in the process of facilitating curriculum continuity for their wards, employing the prescribed information and communication technology (ICT) tools as a means of fostering interaction. It is against this backdrop that the present inquiry was conceived, with the primary objective of scrutinising how parents, educators, and students availed themselves of the ICT tools enshrined within the CCERPFG to engender efficacious curriculum continuity.

2. Related works

Curriculum refers to selected, organized, integrative, innovative and evaluative educational experiences provided to learners consciously or unconsciously under the school authority to achieve the designated learning outcomes (Molenda, 2015). The curriculum has been ascertained to play a critical role. There is a need for an effective curriculum in every educational system. Thus, an effective curriculum serves as the scheme to ascertain what is done in education in terms of teaching and learning, as well as how to achieve accurate educational goals and implementation (Kubiatko, 2013). Patrick (2006) posited that

everyone including students, teachers, administrators, parents, community and other stakeholders depends on the curriculum for the delivery of quality education.

Purpose of the work. The study sought to explore the utilization of information and communication technology (ICT) tools by teachers to engage with their students and parents, with the overarching objective of facilitating effective curriculum continuity within selected second-cycle educational institutions in Ghana. This study employed a mixed-methods approach, specifically descriptive survey method and phenomenology.

3. Materials and methods

3.1. Concept of Curriculum Continuity

Continuity as a concept has assumed both denotative and connotative meanings. Denotatively, continuity refers to the fact of not stopping or not changing (Hey & Holloway, 2015). This denotative meaning of continuity is derived from the root word continuous, which refers to something "happening or existing for some time without interruption" (Hey & Holloway, 2015). In the context of this study, Hey and Holloway's definition refers to how to continue the school curriculum without interruption despite the closure of schools as a result of the COVID-19 crisis. Sharing the views of the denotative understanding of the concept of continuity, Kubiatko (2013) indicated that one has to envisage the need to further activities or operations without a stoppage or breakage. Thus, one has to take into consideration the unbroken and consistent existence or operation of something over time. In this regard, it ensures the sustained continuation of activities or operations amidst challenging disruptions (Fay, 2006).

In education, the operation of teaching and learning activities or any other form of administrative activities comes in the form of curriculum continuity and curriculum being sustained in the event of disasters and other forms of crisis. Therefore, in this study, curriculum continuity, continuity of education, continuity of learning and academic continuity may be used interchangeably. Leshin et al (1992) refer to continuity of learning as building sequentially on previous learning; finding out what specific subject knowledge has been taught across the curriculum and aiming to build on this incrementally.

For Gall et al. (2007), curriculum continuity can

determine whether activities and operations of an education system can be continued in service delivery or disrupted in different situations. It is in line with this that Owolabi (2005) considers curriculum continuity as the need to avert any losses in learning or teaching following the disruption.

Since curriculum serves as the blueprint for activities in education, any disruptions need to be countered because such situations might lead to inefficiency within the education system. This makes the necessary processes to be put in place for curriculum continuance critical. Curriculum continuity ought to be seen as the measures taken to ensure that teaching and learning continue while teachers and students still follow the planned scheme of learning outcomes even if the platforms and way of teaching and learning are altered.

3.2. Problem solution

For teaching and learning purposes, Noor-Ul-Amin (2016) shares the view that ICT has increased the flexibility in educational delivery. Learners can easily access education or knowledge at any time from a distance. The easy and flexible nature in the application of ICT in teaching and learning cut across all subjects and disciplines.

The easy access and flexibility that ICT provides in teaching and learning have been very helpful to deprived students. As Noor-Ul-Amin (2016) affirms, ICT has made it possible for academic institutions to reach disadvantaged groups and new international educational markets. This flexibility has provided learning opportunities for many learners who before the dawn of ICT could not easily have access to education (Adusei, 2020).

According to König et al., (2020), ICT includes computers, the Internet, and electronic delivery systems such as radios, televisions, and projectors among others. These tools are widely used in today's education field to bring education to the doorsteps of students. Odoi (n.d.) posited that ICT plays several roles in education and has already started playing some roles which include stirring school management up to rethink teaching practice; equipping graduates to be better suited for the technology age; improving educational outcomes and enhancing and improving the quality of teaching and learning. Odoi (n.d.) went further to indicate that ICT infrastructure such as computer local area network (LAN), open educational resources (OER), computer-assisted-

instructions (CAI), television-assisted-instruction (TAI), and the internet help in effective teaching and learning. Students leverage the internet, a product of ICT today, to access information beyond the limitation of their geographical location (Rubacha & Lazaridesb, 2020). Thus, with the help of ICT, students do not necessarily have to be in class before learning can take place. Students can join classes remotely through the use of ICT.

3.3. Teacher-parent interaction

Over the past three decades, researchers and practitioners alike have explored the power of parent involvement and the importance of fostering school-family partnerships to enhance the academic, social and emotional learning for children and adolescents (Patrikakou et al., 2005; Patrikakou, 2004, 2008).

The important role of parents in the education of their wards, and the need to promote school-family partnership as a way of promoting holistic education has caught the attention of researchers and educational stakeholders in the past three decades (Patrikakou, 2004). Writing on the topic, Adolescence: Are parents relevant to students' high school achievement and post-secondary attainment? Patrikakou (2004) stressed the essential role of parents in the academic, social and emotional development of their wards. Again, Patrikakou, Weissberg, Redding, and Walberg (2005) are of the view that there is a need for schools to establish school-family partnerships (Patrikakou et al., 2005).

Study design: The study employed the mixed-method approach. The type of mixed-method design used for the study was the concurrent triangulation design. The specific quantitative design and qualitative design that were triangulated are descriptive survey design and phenomenology, respectively.

Sampling, data collection and analysis: The stratified sampling was used to sample teachers and students from the Ashanti Region, Eastern Region, and the Greater Accra Region. Opportunity sampling was also used to sample parents across the three regions for interviews.

Survey questionnaires were developed for 375 students and 254 teachers. Phenomenology characteristically collects data through interviews. Consequently, nine parents were sampled for the qualitative data through interviews.

Table 1. Teachers’ and students’ use of CCERPFG’s proposed ICT for interaction during the Covid-19 crisis.

Statements / Assertions	SD N %	D N %	N N %	A N %	SA N %
1. I was able to interact with instructors during the Ghana Learning TV programme.	238/37.84	228/36.25	134/21.30	29/4.61	0 0/00
2. I was able to interact with instructors during the Joy Learning TV programme.	154/24.48	208/33.07	213/33.86	44/7.00	10/1.59
3. I was able to interact with instructors during the Class Act Citi TV programme.	280/44.52	288/45.79	32/5.09	24/3.82	5/0.79
4. Ghana Learning Radio and Reading programme allowed learners to call in for questions and answers.	223/35.45	221/35.14	146/23.21	35/5.56	4/0.64
5. The Sabre Home Learning Radio had a call-in session.	268/42.61	247/39.27	74/11.76	38/6.04	2/0.32
6. I could interact with teachers/students while using the online iCampus platform.	278/44.20	281/44.67	34/5.41	30/4.77	6/0.95
7. I could interact with teachers/students while using the online iBox platform.	272/43.24	286/45.47	37/5.88	28/4.45	6/0.95
8. I could interact with my teachers/students during the pandemic break.	178/28.30	301/47.85	11/1.75	96/15.26	43/6.84

Source: Field Data, 2022

Note: The abbreviations in the top line, SD, D, N, A and SA, represent Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree, respectively, as used on the Likert’s Scale.

In table 1, lower percentage of the respondents admitted to have had interactions. This is confirmed by the addition of the following percentages of both the “agree” and the “strongly agree” options in each item starting from item 1 to item 8: 4.61%, 8.59%, 4.61%, 6.2%, 6.36%, 5.72%, 5.4%, and 22.1%, respectively.

3.4. Teacher - Parent Interaction

The CCERPFG proposed that there should be interactions between parents and teachers as one of the ways of promoting curriculum continuity whilst students were at home. The study therefore explored parents to see if this intervention was achieved. Analysis of data from interviews with sampled participants brought out two themes namely “no interaction” and “unofficial/philia interaction” (figure 1). Figure 1 is an illustration of the outcome of the exploration.

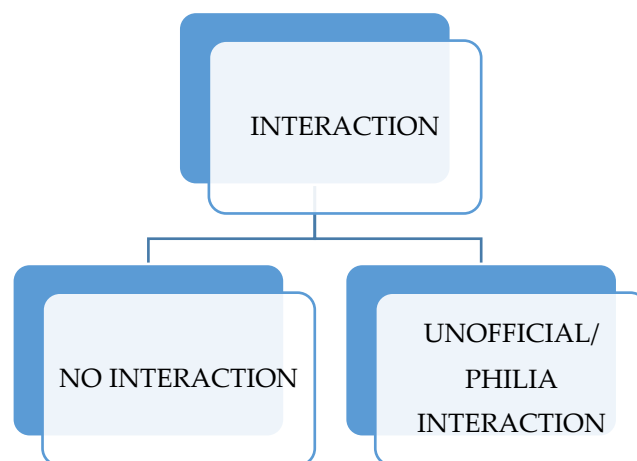


Fig. 1. Diagram explaining Teacher-Parent Interaction

Source: Field data, 2022.

The qualitative findings corroborate with the quantitative results as the interviewees asserted

that there was no official interaction between respondents. Thus, it was discovered that there

were no interactions between parents and teachers. Most of the parents regrettably asserted that they had no interaction with the teachers. The few parents who interacted with some teachers did so unofficially because they interacted based on the *philia* relationships they had with the said teachers. One parent for instance said: "...once in a while I called one of the teachers who was taking care of him (my boy) whilst he was in school. The teacher also called me once in a while to talk to my boy."

3.5. Results

The use of ICT tools for interaction between teachers and students

The study collected quantitative data using Likert's Scale questionnaires to find out how CCERPF's proposed ICT tools were used for interaction between teachers/instructors and students. Table I and fig. 1 show a very poor rate of interaction between teachers and students.

4. Discussion

The finding from the present study concerning the interaction between teachers, parents, and students is very unpleasant for any serious curriculum continuity. The situation in Ghana far contradicts the research findings in other parts of the globe. For instance, König et al. (2020) revealed in their study that in Germany, about 90% of teachers reported they communicated with students and parents on a regular basis during the COVID-19 crisis that led to the prolonged closure of schools. Again, some of the teachers asserted that they contacted and provided assistance to students who needed extra support.

Moreover, the finding in this present study undermines researchers' effort to ensure the involvement of parents as well as the promotion of regular evaluation and assessment of students' learning process. Patrikakou (2008) highlights the relevance of parents' involvement in their wards' educational process. Parents are therefore to be seen as facilitators in the educational enterprise of their wards. Parents help in engaging their wards in their studies at home. Therefore, the absence of interaction between parents and educational leaders cannot be trivialised.

5. Conclusion

Thus far, this study has sought to explore the findings highlighting the lack of interaction

between teachers, parents, and students in Ghana during the COVID-19 crisis emphasising the urgency of addressing this issue to ensure effective curriculum continuity. This necessitates a multifaceted approach involving educational practice, policy reform, and further research to enhance the educational landscape in Ghana.

Notwithstanding the successful curriculum continuity in Ghana, some challenges could have marred the CCERPF. One outstanding challenge was the lack of interaction between teachers, parents and students. The aftermaths of the absence of interaction were non-interactive teaching and learning, and the lack of assessment of teaching and learning.

It is therefore imperative for parents, teachers, students, Ghana Education Service (GES), curriculum planners, government, and all other stakeholders to get on board to find the best possible ways to ensure interactions among parents, teachers, and students as a way of improving learning outcomes of students. Again, educational stakeholders in Ghana should find out the possible ways of assessing students at home during any form of distance learning.

Implications for practice, policy and research

The findings from the present study regarding the lack of interaction between teachers, parents, and students in Ghana hold significant implications for educational practice, policy, and research in the country.

Implications for Educational Practice:

1. Urgent Need for Improved Communication: The study's findings underscore the critical need for educational institutions and teachers in Ghana to enhance their communication with both students and parents. Effective communication is paramount for ensuring the success of curriculum continuity efforts, especially in times of crisis.
2. Teacher-Student Engagement: Teachers should make concerted efforts to engage with their students, even in remote learning settings. Regular communication and support from teachers can help students navigate the challenges of distance learning more effectively.
3. Parental Involvement: Parents should be encouraged and empowered to actively participate in their children's education. Schools can provide resources and

guidance to parents to support their children's learning at home.

Implications for Educational Policy:

1. Policy Re-evaluation: Ghana's education policymakers may need to reevaluate existing policies and consider new measures to promote and facilitate teacher-student and teacher-parent interactions, particularly during periods of school closures.
2. Teacher Training: Policymakers should consider investing in teacher training programs that equip educators with the skills and tools needed to effectively engage with students and parents in online and remote learning environments.
3. Parental Engagement Policies: Policies should be developed or revised to promote and support parental involvement in the education process. This may include initiatives to educate parents about their role in their children's learning and ways to facilitate learning at home.

Implications for Research:

1. Further Investigation: Researchers in Ghana should delve deeper into the factors contributing to the lack of interaction between teachers, parents, and students. Understanding the root causes can inform the development of targeted interventions.
2. Comparative Studies: Comparative studies with other countries, such as Germany, as mentioned in the study, can provide valuable insights into best practices for maintaining teacher-student and teacher-parent communication during crises like the COVID-19 pandemic.
3. Impact Assessment: Researchers can assess the impact of improved teacher-parent-student interactions on students' learning outcomes and overall educational experiences to better inform educational policies and practices.

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Informed consent

All the participants in the study gave their informed consent

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