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INFORMATION COMMUNICATION TECHNOLOGY AS A FACTOR INFLUENCING ADOLESCENT STUDENTS' BEHAVIOUR IN THREE SECONDARY SCHOOLS IN ILORIN METROPOLIS.

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INFLUENCING ADOLESCENT STUDENTS' BEHAVIOUR IN THREE
SECONDARY SCHOOLS IN
ILORIN METROPOLIS.

BY

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ABSTRACT

This study examined the influence of Information and Communication Technology (ICT) on the behaviour of Adolescent students. It is limited to the adolescent students of three secondary schools namely: Emmanuel Baptist College, Chapel Secondary School and Union Baptist Grammar School. The study was guided by five objectives which are: to examine Information and Communication Technology as a factor influencing Adolescent Students' Behaviour in three secondary schools in the Ilorin metropolis, to identify some Adolescent Students' Behaviours exhibited in the schools, to determine the influence of ICT on adolescent Males and adolescent females in the Ilorin Metropolis, to identify the positive and negative behaviours exhibited by adolescents in the Ilorin Metropolis as a result of the influence of ICT, to examine the influence of ICT on adolescents' motivation and engagement in learning for both early and

late adolescents in the Ilorin Metropolis. A descriptive survey design of correlation was adopted and questionnaires were used to collect data. The data collected were analysed using frequencies, tables and percentages and Pearson Product Moment Correlation was used to test the hypothesis. The study concluded that no adolescent student in this age is free from the influence of Information and communication technology. The study made these recommendations: Parents, mentors, teachers, librarians and information managers should be able to control the kind of information accessed by Adolescent Students using ICT and its devices; there should be age restrictions to the access of certain multimedia that can influence negative behaviours in Adolescent Students; proper guidance on how to use of ICT should be given to Adolescent Students so that they can use it for the right reasons; self-discipline; general access to the use of ICT should only be granted at a suitable ages.

KEY WORDS: Information Communication Technology (ICT), Adolescent Students Behaviour, Ilorin, Metropolis

INTRODUCTION

Background to the study

The period of adolescence is said to be between the ages of twelve and twenty. The individuals that fall within this age group are called adolescents or teenagers because all their ages are teenage. Generally, the period of adolescence is known as the period of learning or discovery. This is the stage where the individual experiences massive physiological changes which lead to emotional and psychological developments. Igbo, Egbe-Okpenge and Awopetu (2013) opined that the developmental stage of youths cover the scope of adolescence and the young adulthood hence they experience more adolescent characteristics. This period of adolescence is associated with vigour and since they are very energetic and active, they tend to engage in explorative actions which sometimes yield both positive and negative actions affecting their behaviours.

Experiencing changes physically and mentally, adolescents are forced to be exploratory in learning how to cope with those sudden changes as well as the expectations of society and personal desires or goals. This is why to why many adolescents are found in several institutes of learning. In Nigeria, personal observations have shown that adolescents are mostly involved in getting education or knowledge. In trying to learn so much to be able to live better

for themselves and the society, individuals going through the period of adolescence get all sorts of education in several forms. The most popular of all these forms of education is the formal education which occurs within the walls of a school or an institution. Personal observation also shows that adolescents are mostly found in secondary schools as well as lower levels of the tertiary institutions. Speculatively, in Nigeria Adolescents are found from the junior secondary-class two to the two hundred level (200) level of the tertiary institutions.

Adolescents who are found in these levels of formal education are the ones called adolescent students and the way they behave is what is called “Adolescent Students’ Behaviour”. In other words, Adolescent Students’ Behaviour can be said to be the attitudes of or the characters of adolescents undergoing formal education. However, these behaviours, attitudes or characters can be either positive or negative. They can be good or bad for the adolescent students themselves, their immediate environment or the society at large. According to Igbo, Egbe-Okpenge and Awopetu (2012) some of the bad behaviours exhibited by adolescent students include: stealing, truancy, lying, cheating, lateness, rudeness, sexual offences and harassments. The good behaviours are the exact opposite of the bad behaviours. However, some other good behaviours include: good management skills, good leadership skills, creativity, innovativeness, family responsibility etc.

Every behaviour exhibited by Adolescent students is a result of several factors for example, genes transmitted from their parents at birth, imitating parents or adults in the family, imitating certain mentors, peer pressure, knowledge gained from books or in classes etc. However there is one that has quickly joined that list and become one major factor and that is Information and Communication Technology (ICT) It is now affecting people both positively and negatively.

The advent of Information and Communication technology (ICT) has proven to be man’s greatest revolutionary achievement. Generally, records show that since the advent of

ICT there have been spectacular changes to the way man does work that the ancient ones could only imagine. “In the field of culture and communications, ICT has created a powerful revolution and these transformations comprise all fields of everyday life of people. As posited by khajehnoor (2010) some of these aspects include in no particular order of importance: medicine, engineering, agriculture, politics, communication, culture, music, information science and education.

The enhancement of Computer technologies; like every other revolutionary invention, ICT and ICT devices made man’s work easier to do and this encouraged man to seek ways to improve the devices such that they were smaller in size, less expensive and easier to use, and the better the devices became the more it spread into all society until it became man’s sole working equipment or tool. In the 1990s when the use of personal computers, the internet and the World Wide Web; which are major components in ICT became very prominent, software that ran on computers graduated from ones used for difficult and somewhat specific and professional tasks into the ones used for task common to lay men or task common to every man regardless of his profession. Some of these tasks include: playing digital games, sending mails, photography, fashion, chatting, advertisement etcetera. Software creators ventured into programmess that could not only be used by professionals but virtually everyone who could read and write. This new set of Software forced the hand of many to purchase and use personal computers including children, adolescents and adults.

The use of ICT and ICT devices had become habitual especially in the first world countries. However, in the third world countries like Nigeria, the use of ICT and ICT devices did not become habitual until the late 1990s and the early 2000s. Nigerians began at that time to use ICT devices, particularly desktop computers, laptops and cellphones, smart and android phones for creating, processing and disseminating information hence initiating the advent of Information and communication technology. The advent of Information and Communication

Technology in Nigeria like every other revolutionary action came with its pros and cons. (Esan, 2013; Eugene, 2013; Igbo, 2012). The use of ICT devices in general affected or influenced the behaviours of people in the country. It influenced the way they work, walk, talk, worship, learn and eventually their culture that is, their total way of life.

The influence of ICT is great on the Adolescents in the country. "...information and communication technologies (ICTs) have strong effects in the life of modern people, especially young people. In this respect, a large amount of high-speed data is exchanged around the world. Youths are exposed to cultures, ideas, attitudes, behaviours and ways of life of different communities according to khajehnoori, (2010).

Every century is known for a particular thing, the 20th century is known for massive advancement in the field of genetics, medicine, technology, social science and physics. The 21st century however is known particularly for the advancements in Information and communication technology. Given the facts that Adolescents are most open to learning and discovery, most of the advancements in the 20th century like the ones in aeronautics was what the adolescent students of that time were interested in. A lot of adolescents at that time wanted to learn how to fly an airplane. In this century however, the advancements in Information and communication technology are what the adolescent students are interested in. This is why they are most influenced by it, because it would seem that it was made in their time and for them.

In the light of the aforementioned, the researchers embarked on this study to investigate how information and communication technology influenced adolescent student's behaviours in three secondary schools in the Ilorin metropolis of Kwara State Nigeria.

Objectives of the Study

Besides the general objective of this study which is:

“To examine Information and Communication Technology as a factor Influencing Adolescent Students’ behaviours in three secondary schools in the Ilorin metropolis”.

There are specific objectives and they include:

1. To identify some Adolescent Students’ behaviours exhibited in the schools.
2. To determine the influence of ICT on adolescent Males and adolescent females in the Ilorin Metropolis.
3. To identify the positive and negative behaviours exhibited by adolescents in the Ilorin Metropolis as a result of the influence of ICT.
4. To examine the influence of ICT on adolescents’ motivation and engagement in learning for both early and late adolescents in the Ilorin Metropolis.

Research Questions

The following research questions will help guide the path of this study, they include:

1. What are some of the Adolescent Students’ Behaviours exhibited in the schools?
2. What are the positive and negative behaviours exhibited by adolescents in the Ilorin metropolis as a result of the influence of ICT?
3. What are the influences of ICT on the male and female adolescents in the Ilorin metropolis?
4. What are the influences of ICT on adolescents’ motivation and engagement in learning for both early and late adolescents in the Ilorin metropolis?

Hypothesis

There is no significant relationship between the use of Information and Communication Technology and Adolescent Students’ Behaviour in three secondary schools in the Ilorin metropolis” will be tested at 0.05 level of significance

Research Design

The research design used in this study is a descriptive survey called correlation that sought to discover the effects that ICT had on the behaviour of Adolescent students in three secondary schools in the Ilorin metropolis

Study population

The term 'population' as used in this research refers to the entire number, group, objects and elements which are of interest to the researcher. It can also be referred to as the aggregate of all observations of interest to the researcher. In this study, the target population are the Adolescent students of three selected secondary schools in the Ilorin metropolis; their male Adolescent students, female Adolescent students, their Adolescent students in JSS 1-3 and Adolescent students in SSS 1- 3.

The names of the selected schools are:

1. Emmanuel Baptist College; with an approximated population of 300 students.
2. Chapel Secondary School; with an approximated population of 400 students.
3. Union Baptist Grammar School; with an approximated population of 500 students.

Sampling technique and sample size

The sampling technique adopted for this research work was the simple random sampling because it gave every respondent in the study the opportunity of being selected equally. Fifteen respondents were selected from each junior and senior secondary sections of each of the three secondary schools. This means that thirty (30) respondents were selected in

each of the three secondary schools making a total of ninety (90). All of them responded to the researcher and this showed that 100% of the total respondents participated.

Research instrument

The instrument used in collecting data for this study was a questionnaire designed by the researcher titled: “Questionnaire on ICT as a factor influencing Adolescent Students’ Behaviour in the Ilorin Metropolis”. Questionnaires have been said to be one of the most common instruments especially among student researchers. Questionnaires are often used to produce useful information in the area of behaviour and opinion. Therefore, the questionnaire designed was one that sought to gather information on the behaviour of the respondents as well as their opinion about the questions asked in the questionnaire. The questionnaire was in two sections namely A and B. Section A dealt with the biographical data of the respondents such as their age, gender and level of education while section B sought to gather information related to the research questions of the study. The questionnaire comprised both open and closed ended questions.

Reliability and validity of research instrument

Validity refers to the degree to which a test or instrument measures what it intends to measure. In order to ensure the validity of the research instrument used in this study, the questionnaire was first given to the experts in the field of Library and Information science, to assess the content and face validity. The questionnaire was declared valid and appropriate for the study after little adjustments recommended by the experts.

Data collection procedures

Copies of the questionnaire on Information and Communication Technology (ICT) as a factor influencing Adolescent Student’s Behaviour in three secondary schools in the Ilorin Metropolis were administered by the researchers to the respondents. The copies of questionnaire were administered when students were in session because that was the time they

could be easily reached for maximum response, the respondents were asked to fill and return the questionnaire immediately. Respondents who did not understand the questions asked the researchers and the questions were properly explained and responded to. The researchers were assisted by some staff in the schools to collect the questionnaire.

Data analysis

The data collected from the field was analysed using descriptive statistics of frequency counts and percentages for the research questions while the hypothesis was tested with inferential statistics called Pearson Product-Moment Correlation (PPMC). PPMC particularly was used to predict the effects of the Independent variable on the dependent variable and the relationship that exists between them.

Data Analysis

TABLE 1: Positive Behavioural Effects as a result of ICT influence

Positive Behavioural Effects of ICT	Frequency	Percentage	Frequency	Percentage
	Yes	(%) Yes	No	(%) No
ICT has helped in practice of faith	48	53.3	42	46.7
ICT has helped in the developing of skills and talents	68	75.6	22	24.4
ICT has helped in making career choice	63	70	27	30

ICT has helped in self – marketing	28	31.1	62	68.9
ICT has helped in understanding school work	76	84.4	14	15.6
ICT has helped in choosing role models	50	55.6	40	44.4
ICT has helped in learning about my body	52	57.8	38	42.2
ICT has helped in learning how to related with people all over the world	71	78.9	19	21.1
ICT has helped in learning how to relate with the opposite gender	56	62.2	34	37.8
ICT has helped in increasing my interest in school work	74	82.2	16	17.8

Table 1 shows that ICT has been advantageous to the respondents in the multiple ways; it has helped 48 (53.3%) in practicing their faith better, 68 (75.6%) in developing their skills and talents better, 63 (70%) in choosing their future careers, 28 (31.1%) in self-marketing, 76

(84.4%) in understanding school work better, 50 (55.6%) in choosing role models, 52 (57.8%) in knowing more about their body, 71 (78.9%) in learning how to relate with and treat people all over the world, 56 (62.2%) in knowing how to relate with and treat the opposite gender and 74 (82.2%) in creating interest for school work.

TABLE2: Negative Behavioural Effects as a result of ICT influence

Negative Behavioural Effects of ICT	Frequency	Percentage	Frequency	Percentage
	Yes	(%) Yes	No	(%) No
Cyber bullying and Intimidation	45	50	45	50
Online Drug Trafficking	45	50	45	50
Examination fraudulency	49	54.4	41	45.6
Lateness	39	43.3	51	56.7
Sex crimes	49	54.4	41	45.6
Gossiping	54	60	36	40
Intensive peer-pressure	49	54.4	41	45.6
Lack of face-to-face relationship skills	48	53.3	42	46.7
Low self-esteem	37	41.1	53	58.9
Violence	46	51.1	44	48.9

Depression	41	45.6	49	54.4
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Table 2 shows the disadvantages influenced by or heightened by ICT and its devices according to the respondents. 45 (50%) said that cyber bullying is influenced by or heightened by ICT or its devices, 45 (50%) said the same for Online drug trafficking, 49 (54.4%) for Examination fraudulency, 39 (43.3%) for Lateness, 49 (54.4%) for Sex crimes, 54 (60%) for Gossiping, 49 (54.4%) for Intensive peer-pressure, 48 (53.3%) for Lack of face-to-face relationship skills, 37 (41.1%) for Low self-esteem, 46 (51.1%) for Violence and 41 (45.6%) for Depression.

TABLE 3: Does the disadvantages influenced by or heightened by ICT or its devices outweigh the advantages?

Answer	Frequency	Percentage (%)
Yes	46	51.1
No	44	48.89

Table 3 shows that 46 (51.1%) of the respondents think that the disadvantages influenced by ICT or its devices outweigh the advantages while 44 (48.9%) think that it doesn't. Hence, according to this result, the disadvantages influenced by or heightened by ICT or its devices slightly outweigh the advantages by exactly 2.2%.

TABLE 4: Solutions to the disadvantages influenced by ICT or its devices. Where F = Frequency, % = Percentage, SD = Strongly Disagree, D = Disagree, A = Agree, SA = Strongly Agree.

Solutions	F	(%)	F	(%)	F	(%)	F	(%)
	SD	SD	D	D	A	A	SA	SA
Parents and mentors should be able to control the kind of information accessed by Adolescent Students using ICT and its devices.	9	10	2	2.2	30	33.3	49	54.4
There should be age restrictions to multimedia that can influence negative behaviours in Adolescent Students.	15	16.7	8	8.9	29	32.2	38	42.2
All multimedia that can influence negative behaviours in Adolescent students should not exist at all.	12	13.33333 3333	10	11.1	32	35.6	36	40
Proper guidance on how to use of ICT should be given to Adolescent Students.	9	10	2	2.2	30	33.3	49	54.4
Self-discipline	11	12.2	1	1.1	25	27.8	53	58.9
The use of ICT for everything should be discouraged in the society	39	43.3	24	26.7	15	16.7	12	13.3
Access to the use of ICT should only be granted at a suitable age.	12	13.3	16	17.8	34	37.8	28	31.1

Table 4 shows the level to which the respondents disagree or agree to the solutions suggested by the researchers. To the solution: Parents and mentors should be able to control the kind of information accessed by Adolescent Students using ICT, 9 (10%) strongly disagreed, 2 (2.2%)

disagreed, 30 (33.3%) agreed and 49 (54.4%) strongly agreed. To the solution: There should be age restrictions to the multimedia that can influence negative behaviours in Adolescent students, 15 (16.7%) strongly disagreed, 8 (8.9%) disagreed, 29 (32.2%) agreed and 38 (42.2%) strongly agreed. To the solution: All multimedia that can influence negative behaviours in Adolescent Students should not exist at all, 12 (13.3%) strongly disagreed, 10 (11.1%) disagreed, 32 (35.6%) agreed and 36 (40%) strongly agreed.

To the solution: Proper guidance on how to use ICT positively should be given to Adolescent students, 9 (10%) strongly disagreed, 2 (2.2%) disagreed, 30 (33.3%) agreed and 49 (54.4%) strongly agreed. To the solution: Self-discipline, 11 (12.2%) strongly disagreed, 1 (1.1%) disagreed, 25 (27.8%) agreed and 53 (58.9%) strongly agreed. To the solution: The use of ICT for everything should be discouraged in the society, 39 (43.3%) strongly disagreed, 24 (26.7%) disagreed, 15 (16.7%) agreed and 12 (13.3%) strongly agreed. Finally, to the solution: Access to the use of ICT should only be granted at a suitable age, 12 (13.3%) strongly disagreed, 16 (17.8%) disagreed, 34 (37.8%) agreed and 28 (31.1%) strongly agree.

TABLE5: Usage of ICT

Usage of ICT	Frequency	Percentage (%)
Yes	77	85.6
No	13	14.4
Total	90	100

The Table 5 shows that only 13 (14.4%) of the 90 respondents do not make use of ICT or ICT devices while the remaining 77 (85.6%) make use of ICT or ICT devices. This table clearly shows that in this age of Information explosion only a tiny part of the Adolescent student population do not make use of ICT or ICT devices.

TABLE 6: Reasons for using ICT or its devices

Reasons	Frequency	Percentage	Frequency	Percentage
	Yes	(%) Yes	No	(%) No
For communicating with loved ones	85	94.4	5	5.6
For finding school related information	81	90	9	10
For finding non-school related information.	48	53.3	42	46.7
To chat with several people	75	83.3	15	16.7
Entertainment	83	92.2	7	7.8
For finding religion related information	68	75.6	22	24.4
For finding gossip on celebrities	34	37.8	56	62.2
For developing special talents or skills	74	82.2	16	17.8
For self-marketing or advertisement	48	53.3	42	46.7

For joining educational communities online	60	66.7	30	33.3
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Table 6 shows that 85 (94.4%) make use of ICT and ICT devices to communicate with their loved ones, that is family and friends, 81 (90%) use it for finding school related information, 48 (53.3%) use it for finding non-school related information, 75 (83.3%) use it to chat that is communicate with several people besides friends and family, 83 (92.2%) use it for entertaining themselves, 68 (75.6%) use it for finding information related to their religion, 34 (37.8%) use it for finding gossip or information on celebrities or popular people, 74 (82.2%) use it for developing their special talents or skills, 48 (53.3%) use it for self-marketing or advertisement i.e letting other people know about them and what they do, 60 (66.7%) use it to join educational communities online.

TABLE 7: Reasons for not using ICT or its devices

Reasons	Frequency	Percentage	Frequency	Percentage
	Yes	(%) Yes	No	(%) No
You are not aware of the existence of ICT.	12	13.3	78	86.7
You do not know how to operate or use ICT.	13	14.4	77	85.6
You don't own or have access to ICT or its devices.	18	20	72	80

You don't need to use ICT or its devices.	8	8.9	82	91.1
You hate reading from screens.	14	15.6	76	84.4

In an attempt to recognize how ICT influences the behaviour of Adolescent students i.e the respondents; there was need to know if for some reasons some of the respondents do not make use of ICT or ICT devices at all. Table 7 shows that 12 (13.3%) of the respondents do not use ICT or its devices because they are not aware of the existence of ICT, 13 (14.4%) do not know how to use or operate ICT devices, 18 (20%) do not own or have access to ICT or its devices, 8 (8.9%) do not deem it necessary to use ICT or its devices and 14 (15.6%) hate reading from screens that is they prefer the traditional means of communicating and accessing information.

TABLE 8: The level of usefulness of ICT and its devices

Usefulness	Frequency	Percentage (%)
Useless	4	4.4
Useful	29	32.2
Very useful	57	63.3

The level of usefulness of ICT and its devices also refers to its effectiveness i.e how well it meets the needs of the respondents. The needs of the respondents were spotted in their reasons for using ICT and its devices and they include: Communication with loved ones, finding school related information, finding non-school related information, chatting with several other people, self-entertainment, finding religion related information, finding gossip on celebrities,

developing special talents or skills, self-marketing or advertisement, joining educational communities online. Table 8 shows that in meeting all this needs 4 (4.4%) of the respondents found ICT and its devices useless i.e it failed to meet their needs. 29 (32.2%) found it useful and 57 (63.3%) found it very useful.

TABLE 9: Elements of ICT used

Elements	Frequency	Percentage	Frequency	Percentage
	Yes	(%) Yes	No	(%) No
Search engines such as: Google, Mamma, Excite, Bing.	68	75.5	22	24.4
Social Media such as: Facebook, Whatsapp, Instagram, tweeter.	70	77.8	20	22.2
Multimedia such as: Texts, pictures, videos,	82	91.1	8	8.9
Emails such as: Googlemail, Yahoooil.	43	47.8	47	52.2

Table 9 shows the components or elements of ICT used by the respondents to meet their various information needs. 68 (75.5%) make use of search engines, 70 (77.8%) are on social media platforms, 82 (91.1%) access or use multimedia information and only 43 (47.8%) make use of mails.

TABLE 10: Frequency of the use of ICT and its devices

Frequency of use	Frequency	Percentage (%)
Not often	19	21.1
Often	50	55.6
Very often	21	23.3
Total	90	100

The frequency at which the respondents use ICT or its devices is dependent on the availability of the devices to them. Those who own these devices in their homes or have access to it close by are the ones who use it most frequently. Those who do not own or have un-denied close access to it use it least frequently. Table 8 shows that only 19 (21.1%) do not often use ICT or its devices, 50 (55.6%) use it often and 21 (23.3%) use it very often. Earlier, Table 5 showed that 18 (20%) did not own or have access to ICT or its devices. Hence, comparing that with the results in Table 8 it is evident that those who do not own or have access use it least frequently.

TABLE 11: Level of satisfaction derived from using ICT or its devices in meeting information and communication needs

Satisfaction Level	Frequency	Percentage (%)
Not Satisfying	5	5.6
Satisfying	61	67.8
Very Satisfying	24	26.7

Total	90	100
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Table 11 shows that 5 (5.6%) of the respondents are not satisfied with the services provided by ICT or its devices, 61 (67.8%) were satisfied by it and 24 (26.7%) were very satisfied by it.

TABLE 12: Does the use of ICT or its devices influence your behaviour?

Answer	Frequency	Percentage (%)
Yes	27	30
No	26	28.9
Not Really	37	41.1

Table 12 shows that 27 (30%) think that the use of ICT or its devices influences their behaviour, 26 (28.9%) think that it doesn't influence their behaviour and 37 (41.1%) think that it influences it slightly. This table proves that a large percentage of the respondents are unaware of the effects of the frequent use of ICT and its devices.

Hypothesis testing

The hypothesis "there is no significant relationship between the use of Information and Communication Technology and Adolescent Students' Behaviour in three secondary schools

in the Ilorin metropolis” was tested at 0.05 level of significance and the results are shown in table 13

TABLE 13: Cross tabulation of Response on yes for the Use of ICT for different purpose

Questions	AGE GROUP			Total
	10-15	15-20	others	
for communication with loved ones	70(82.35%)	14(16.47%)	1(1.18%)	85
For finding school related information	67(82.72%)	13(16.05)	1(1.23%)	81
For finding non-school related information	40(80.00%)	9(18.00)	1(2.00%)	50
Chat with several people	62(81.58%)	13(17.11)	1(1.32%)	76
Entertainment	70(84.34%)	12(14.46)	1(1.20%)	83
For finding religion related information	57(82.61%)	11(15.94%)	1(1.45%)	69
For finding gossips on celebrities	24(72.73%)	8(24.24%)	1(3.03%)	33
For developing special talents or skills	60(81.08%)	13(17.57%)	1(1.35%)	74
For self marketing or advertisement	39(81.33%)	8(16.67%)	1(2.08%)	48
For enjoying education communities online	49(80.25%)	11(18.03%)	1(1.64%)	61

Table 13 shows cross tabulated value. The table shows the frequency counts on yes responses on use of ICT while the values in the brackets are the percentage response for each response.

TABLE 14: The product moment correlation coefficient (PPMC) test for relationship or association between the use of ICT and Adolescent Students’ Behaviour in three secondary schools in the Ilorin metropolis.

<i>Variable</i>	<i>N</i>	<i>DF</i>	<i>Std-Error</i>	<i>R</i>	<i>t</i>	<i>p-value</i>	<i>Remark</i>
ICT usage	30	29	0.025	-0.88	-9.967	0.000	significant

The result from the PPMC test of association from table 14 shows that there is significant relationship between the rate of usage of ICT with adolescent age of the students studied in this

work since the p-value = 0.000 is less than 0.05 level of significant. Thus we reject the null hypothesis in favor of the alternative hypothesis and conclude that there is significant relationship between use of ICT and adolescent age of students in three secondary schools in the Ilorin metropolis. From the table $r = -0.88$ the value of the correlation coefficient infers a strong negative impact of ICT usage on the adolescent age.

Discussion of findings

In view of the following research questions: What are some of the Adolescent Students' Behaviours exhibited in the schools? What are the positive and negative behaviours exhibited by adolescents in the Ilorin metropolis as a result of the influence of ICT? What are the influences of ICT on the male and female adolescents in the Ilorin metropolis? What are the influences of ICT on adolescents' motivation and engagement in learning for both early and late adolescents in the Ilorin Metropolis? Below is the discussion of findings from this study:

What are some of the Adolescent Students' Behaviours exhibited in the schools?

The responses given by the respondents show that some of the Adolescent Students' behaviour exhibited in the schools include: Communication with loved ones, finding school related information, finding non-school related information, chat with several people, entertainment, finding religion related information, gossiping about celebrities, developing special talents and skills, self-marketing or advertisement and joining educational communities. These behaviours are also their reasons for using ICT and its devices as agreed by Ajibade 2012.

What are the positive and negative behaviours exhibited by adolescents in the Ilorin metropolis as a result of the influence of ICT?

The study revealed that the positive behaviours exhibited by Adolescent students in the Ilorin metropolis as a result of the influence of ICT include: Better practice of faith, better development of skills and talent, choosing of future career, self-marketing, better understanding of school subjects, choosing role models, acquiring body knowledge, relating with people from all over the world, relating with the opposite gender, development of interest in school work. However, the negative behaviours include: Cyber bullying, online drug trafficking, examination fraudulency, lateness, sex crimes, gossiping, intensive peer-pressure, lack of face-to-face relationship skills, low self-esteem, violence and depression. This findings agree with the work of Longe, Ngwa, Wada and Mbarika (2010) who noted that “in recent times, following the advancement of Information and Communication Technology and the mass media; it has been observed that several Adolescents and youth now engage in cyber related crimes, such as e-mail scam, cyber bullying and intimidations, lying, internet pornography, online drug trafficking, examination fraud and sabotaging internet network providers”.

What are the influences of ICT on the male and female adolescents in the Ilorin metropolis?

The study showed that some of the influences of ICT on both genders do not differ from the ones listed in as most of the behaviours are not gender biased, both genders could exhibit the behaviours listed above. However, based on the response of respondents, critical observation of this study and shows that some of the influences of ICT particularly on male adolescents include: relating with opposite gender, cyber bullying, online drug trafficking, violence amongst others.

The influences of ICT particularly on female adolescents include: gossiping about celebrities, self-marketing and advertisement, choosing role models, relating with opposite gender, lateness, low self-esteem and depression amongst others.

What are the influences of ICT on adolescents' motivation and engagement in learning for both early and late adolescents in the Ilorin Metropolis?

The study shows that most of early adolescents are not very influenced by the use of ICT as they are not fully physically and mentally developed and have not begun to form a sense of character and behaviour. However, the late adolescents are very influenced by the use of ICT as they are quite developed physically and mentally and have begun to form a sense of character and behaviour. The study further shows that most of the late adolescent students are more interested in their school work due to the use of ICT. Both early and late adolescents use ICT to find information on school related work equally. Based on the response of respondents as well, it is observed that many of the early adolescents; that is those between the ages of thirteen and sixteen do not tend to choose role models, choose future careers and self-advertise or market but the late adolescents tend to exhibit all these behaviours. This is in agreement with the views of Awopetu et. al (2013).

Conclusion

Based on the findings of this research, one would conclude that no adolescent student in this century is free from the influence of Information and communication technology and these influences are intense, thorough and encompassing. The Adolescent students of Emmanuel Baptist College, Chapel Secondary School and Union Baptist Grammar School for example, make use of ICT in numerous activities often and satisfactorily hence leading to the exhibition of both positive and negative behaviours. However, being aware of the damages caused by the negative behaviours to themselves and their society, the Adolescent students agree to measures that may be used to control their use of ICT at home, schools and information centers. This study has revealed that ICT is indeed a factor influencing adolescent students' behaviour and that information and communication technologies (ICTs) have strong effects in the life of modern people, especially young people.

Recommendations

The following recommendations were given from the research carried out:

1. Parents, mentors, teachers, librarians and information managers should be able to control the kind of information accessed by Adolescent Students using ICT and its devices.
2. There should be age restrictions to the access of certain multimedia that can influence negative behaviours in Adolescent Students.
3. Proper guidance on how to use of ICT should be given to Adolescent Students so that they can use it for the right reasons. Seminars and conferences on the positive use of ICT should be organized in schools to create awareness.
4. Self-discipline. Adolescent ICT users should learn to personally discipline themselves in the use of ICT and its devices positively.
5. General access to the use of ICT should only be granted at a suitable age.

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