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Information Communication Technology and Student Personnel Services in Osun State Higher Learning Institutions

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ABSTRACTS

The study was conducted to investigate the existing information communication technology (ICT) facilities and students' personnel services in Osun State Colleges of Education and Polytechnics. The descriptive survey design was used in the study. The population for the study consisted of academic staff, non-teaching staff, and students of Osun State Colleges of Education and Polytechnics. The sample comprised 376 respondents which included 97 academic staff, 112 non-teaching staff, and 167 students in Osun State Colleges of Education and Polytechnics using a multi-stage sampling technique. Two sets of research instruments were used to collect data for the study, A self-designed questionnaire titled Information Communication Technology and Students' Personnel Services Questionnaire (ICTSPSQ) was used to collect information from the respondents, and an Observation Checklist titled Information Communication Technology Facilities (ICTF) to collect additional information in the study. The reliability index of the questionnaire was 0.74. The result indicated that ICT enhanced students' personnel services in the institutions while there was a significant difference in ICT usage and students' personnel services in Osun State Colleges of Education ($F=4.47$; $p< 0.005$) and Polytechnics ($F=4.61$; $p< 0.005$) respectively. It was recommended that Colleges of Education should put more effort into making sure that those personnel services provided for students are more digitalized for efficiency and effectiveness.

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1. INTRODUCTION

Digitalization of information is concerned with data processing, storage, and dissemination of information using computer hardware, software, and other digital electronic devices. It is part of telecommunication which include: telephone lines, fax machine, computer, a point on sales machine, internet (dial-up or VSAT), satellite dishes, wireless signals, and wireless fidelity with other microchip devices which were developed in recent time due to improvement in the information and communication technology sector.

Information digitalization in higher educational institutions (HEIs) is a process by which electronic devices are used in collecting, using, storing, retrieving, and sending information that concerns the academic staff, non-teaching staff, and stakeholders in the concerned institution (Habib *et al*., 2021). In Nigeria, student personnel services are seen as an integral part of services rendered to students in the educational system. These are aid services designed in reducing students' problems. The students' personnel workers are problem solvers who advocate for the student's best interests within the structure of education in terms of policies with relevant legal mandates to implement programs and policies. When personal and social problems are solved, students are better focused on their academics and skills.

American Council on Education held a two-day conference in 1937 on problems relating to the clarification of the field of students' personnel work, the relationship of students' personnel work to other phases of the institutional program, and the need for research and special studies to determine the nature and direction of future developments in students' personnel work. Students' personnel services are meant to meet students' needs to make them successful practitioners and scholars. Some of these students' personnel management services are monitoring: students' admission and enrolment, result checking, keeping students' records, registration of courses, hall and hostel accommodation, students' orientation, health services, campus safety services, library services, provision of effective internet services, just to mention but a few.

Students' support services, also known as student services or pupil services include prevention, intervention, transition, and follow-up services for students and families. These are services rendered to assist students to attain maximum self-realization and become effective in school and society at large (Burns, 1990). Some of these services are provided by the course advisers, school counselors, bursar, and other institution officers. It facilitates positive learning and responsible behavior in students and caters to students with disabilities as well. Students' personnel services involve a series of support for students to promote their growth and development in which information and communication technology are not left out.

The earliest computing device consisted of the human fingers. This formed the basis for the decimal number system. Later, pebbles, rocks, stones, match sticks, and the like were used for counting instead of ten fingers. Later some people started counting in their twenties. Abacus was the first mechanical computer for counting. It was developed in China probably about 450bc it is still in use today in many parts of the world. Most of the great mathematicians of the 17th and 18th centuries attempted to develop calculating machines. Leinbitz, Blasic Pascal, Bouchon Falkon, and Jasques Loom all invented calculators of one form or another. The dawn of the computer era was heralded by Charles Babbage in 1883. His steam-driven analytical engine was developed to automatically computer numerical tables. It had memory, arithmetic, and control units of all which are two basic units.

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According to Papastergiou, (2009), a physicist at Harvard University, H. G Aiken developed an automatic sequence Controlled electromechanical calculator called Mark 1 shortly after Electric Numerical Integrated Calculator (ENIAC) was also developed. It was built with vacuum tubes instead of relays. In 1946, Vom numerical (at Institute of Advance Studies, Princeton) introduced the concept of a stored program, whereby sequences of instruction maintained in the memory are interpreted by the control unit to enable a wide variety of computations. Instruction sequence that Vom Neumon stored in the memory of his computer was his first computer program and its software industry was born. Previously all computers were programd by physical soldering wires to terminals to direct circuits. Some devices used wiring boards, which were replaceable panels containing circuits permanently wired to perform a sequence of operations. The history of computer cannot be completed without mentioning the six generations of computers which includes; the First Generation (1945-1958), Second Generation (1958-1964), Third Generation (1964-1971), Fourth Generation (1971-1975), Fifth Generation (1975-1995), Sixth generation (1995-Till date). Scientists have already started to form multidisciplinary research teams for exploring new problems and new solutions in the development of sixth-generation software.

Historical development of computers has it that computer pioneers were the earliest people whose ideas, contributions, and inventions have helped in the development of the computer system and devices in different industries like communication, transportation, media, banking, and others (Baeker, 2008). These supported various activities like cashless transactions, transfer of funds at the tap of a button on a phone, mobile apps, booking online, streaming online of the current event, bio-metric check of personal data on the computer, and use of social media like 2go, audioBoom, BBM, ChatOn, Chrome, Dobox, Duo, Ebuddy, Eskimi, Facebook, Flickr, Friendster, Gtalk, GMaps, Google, Hi Theme, Hitwe, Instagram, LinkedIn, Myspace, Nazara, Palmstore, Photobucket, Picasa, Skype, Selfie, Twitter, Wapchat, Wechat, Whatsapp, Xender, Yahoo Messenger, YouTube, and other applications that enhance interconnectivity of system. Information and communication technology over the years had contributed to various human endeavors and mankind since the discovery of educational technology after the Second World War in 1945. It has become common knowledge that information communication has made the world a global village due to the interconnectivity of different networks.

Today, the world is experiencing globalization and interconnectivity owing to a rapid breakthrough in information communication and technologies. The beauty of these technologies in education is that they provide opportunities for improvement in the quality of the teaching-learning process, boost academic work, eliminate wastage of time on manual work, reduce training time and cost on the manual job, encourage easy processing of data, storage, transfer and retrieval of information, promote interaction and impact generally on educational theory and practice.

Digitalization of information is an essential process that enhances students' personnel services in higher institutions in terms of services rendered to meet up with the student's needs. It is a means by which manual records such as text, images, video, and audio are converted into digital forms from analog forms. Digitalization of information from analog to digital is to speed up students' personnel services provided in higher institutions as part of student's personnel services which are highlighted in line with administrative and supervisory functions. The students' personnel services like students' orientation, campus safety services like a traffic light, zebra crossing, mapping and description of dangerous zones (automation display), financial aid, health service, international students' service, and accommodation are also concerning the digitalization of information. Digitalization of information and

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communication technology refers to the variety of tools and techniques that are used to facilitate communication. Digitalization of information and communication technology is an integral part of telecommunications (telephone lines, wireless signals, computers, software, middleware, audio-visual system, undersea fiber optic cables, and satellite), which enables users to access, store, manipulate, transmit, distribute and manage information worldwide.

Information Communication Technology (ICT) refers to 'the technology that enables communication and the electronic capture, processing, storing and transmission of information. The process of communication involves elements like source, message, medium, receiver, and effect. The various means of communication in the world today are largely brought about by technological innovations. The digital computer operates directly in digits (numerals). The word "digital" as used, means whole numbers (discrete). The computers process data in form of discrete or separate value that is 0, 1, 2, 3, 4, and 5, by operating on them in steps. Digital computers are more accurate and more flexible than an analog computer because they use the digital form of electrical signals. These digital inputs are converted to output in form of numbers in finite form.

The digital computer performs input or output devices attached to it in one way or the other before the data can be accepted or printed out. Nowadays, digital computers are widely used for counting and calculation because they have more applications that require counting to measure. Examples of these computers are IBM 360, IBM 370, compatible and mackintoshes machines, micro-computer, mini-computer, mainframe computers, and supercomputers. Other latest categories of personal digital assistants (PDAs) are desktops, laptops, notebooks, hand-held units like iPods, iPhones, tablets, camera pens, palmtops, multimedia projector pointers, hand-scanner, and a host of others.

Students' Personnel Services in higher learning institutions were initiated to make teaching and learning easier for the students. Student personnel service is the administrative and supervisory functions services other than classroom instruction that is concerned with the identification, admission, registration, enrolment, and classification of students as well as those services which when adequately provided and properly administered contribute significantly to the physical, mental and emotional health of students. These services help students to attain their educational and career goals in their various institutions when administrative and supervisory roles are adequately carried out by the students' affairs staff. Nguyen *et al*. (2015), referred to it as programs and services offered to students, which contribute to learning and academic achievement, promotion of students' learning, and personnel development both inside and outside the classroom. In the perception of Magolda (2009), it is the division of student services that provides a broad range of programs and services to help students reach their academic goals and enhance their personal, intellectual, and social development. Anthony and Benjamin (2011), are of different perceptions by referring to students' support services as students' personnel services which include prevention, intervention transition, and follow-up services provided for students and families.

International Association of Student Affairs and Services Professionals (2001), listed bookstore services, career services, chaplaincy, and multi-faith services, counseling services, dining and food services, disability services, financial aid, students employment services, international student services, multicultural and ethnic minority student services and orientation of new students as some of the types of students personnel services that are provided in various higher institutions. Essien *et al*. (2020) stated orientation of new students, provision of instructional programs and instructional facilities, character training, social and recreational activities, food and health services, student participation in school government, and maintaining student discipline.

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Personnel services are part of the support for students to promote their growth and development. In Nigeria's educational system, personnel service is practiced within the school premises or outside the school where they have a Mini-campus and Annex for a large turn-out of student's admission. Students' personnel services are services designed by the institution to support their instructional activities. Such services are campus safety services, counseling services, health services, accommodation and hostel services, and the like. These are aid services designed in reducing students' problems. The students' personnel workers are problem solvers who advocate for the student's best interests within the structure of education in terms of policies with relevant legal mandates to implement programs and policies. When personal and social problems are solved, students are better focused on their academic knowledge and skills. Roberts (2007), view personnel service in the perspective of the school as an organization by referring to it as the provisions that are made by school administrators and government for the academic staff, non-academic staff, and students to entice them, retain them, and have the best of their contributions in the achievement of educational goals apart from the wages and salary of the academic and non-teaching staff.

The specific objectives of this study are:

(i) Determine the types of students' personnel services provided in Osun State Colleges of Education and Polytechnics;
(ii) Investigate the existing digitalization facilities in Osun State Colleges of Education and Polytechnics; and
(iii) Compare the difference in the digitalization usage and students' personnel services in each of the institutions.
(iv) Research questions are
(v) What are the types of student personnel services provided in Osun State Colleges of Education and Polytechnics?
(vi) What are the existing digitalization facilities in Osun State Colleges of Education and Polytechnics?
(vii) What are the differences in digitalization usage and students' personnel services in these Colleges of Education and Polytechnics?

The research hypothesis is H_o: There is no significant difference in the digitalization of information and students' personnel services in Osun State Colleges of Education and Polytechnics.

2. METHODS

The study adopted the descriptive survey research design. This enables the measurement of the variables involved and the relationships between the variables. The method provided the opportunity for us to study and make use of a quantitative approach to gather information on the existing facilities and equipment on the digitalization of information and students' personnel services in these institutions. The population for the study was the entire students and staff of Osun State Colleges of Education and Polytechnics from the three senatorial districts in Osun State. The population of the study was made up of 969 academic staff, 1,186 non-teaching staff, and 54,650 students in Osun State Colleges of Education and Polytechnics. The sample comprised 114 academic staff, 125 non-teaching staff, and 11,742 students from the College of Education, Ila-Orangun. 125 academic staff, 220 non-teaching, and 12,917 students from the College of Education, Ilesa. Three hundred and forty-eight (348) academic staff, 432 non-teaching staff, and 16,280 from Osun State College of Technology, Esa-oke while 382 academic staff, 409 non-teaching staff, and 13,711 students from Osun State

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Polytechnic, Iree. A proportionate simple random sampling technique was used in the sample selection.

The purposive sampling technique was used to select Colleges of Education and Polytechnics based on their years of existence as state institutions in Osun State. The purposive sampling technique was used to select two institutions each from Colleges of Education (Ilesa and Ila-Orangun) and Polytechnics (Esa-Oke and Iree). Two research instruments were used to collect data from the respondents: Digitalization of Information and Students' Personnel Services Questionnaires (DISPSQ) was used to collect data on students' personnel services, existing information and communication technology facilities, and usage while Digitalization of Information Facilities Checklist (DIFC) was used to assess additional information on the existing digitalization facilities in the four institutions.

The validity of the instruments was ensured by three experts in the Department of Educational Management and Public Administration at Obafemi Awolowo University, Ile-Ife. The reliability of the instrument was ensured at the 0.74 indexes. This was considered high enough for use. Frequency count, percentage scores, and Analysis of Variance were used to determine the types of students' personnel services, and the existing digitalization facilities and compare the difference in the digitalization usage and students' personnel services in the institutions in Osun State Colleges of Education and Polytechnics.

3. RESULTS

3.1. Research question 1: What are the types of student personnel services provided in Osun State colleges of education and polytechnics?

To determine the types of students' personnel services provided in Osun State Colleges of Education and Polytechnics, percentage scores were used to analyze the data collected as presented in **Table 1**.

Table 1. Students' responses to the types of student's personnel services provided in Osun State Colleges of Education and Polytechnics.

Institutions	Colleges of Education		Polytechnic		Total
Students' personnel services	A	NA	A	NA	N (%)
Admission process	151(82.2%)	33(17.8%)	151(78.5%)	41(21.5%)	376(100)
Students orientation	150(81.3%)	34(18.7%)	160(83.5%)	32(16.5%)	376(100)
Counseling services	116(63.3%)	68(36.7%)	148(76.9%)	44(23.1%)	376(100)
Course registration	145(78.6%)	39(21.4%)	152(79.3%)	40(20.7%)	376(100)
Result checking	126(68.7%)	58(31.3%)	163(85.1%)	29(14.9%)	376(100)
Hostel services	79(42.9%)	105(27.1%)	151(78.5%)	41(21.5%)	376(100)
Electronic services	79(42.9%)	105(27.1%)	159(82.6%)	33(17.4%)	376(100)
Health care services	108(58.9%)	76(41.1%)	144(75.2%)	48(24.8%)	376(100)
Sports and recreation	110(59.8%)	74(40.2%)	147(76.8%)	45(23.2%)	376(100)
Financial aid services	67(36.6%)	117(63.4%)	71(37.2%)	145(62.8%)	376(100)

Table 1 shows students' responses to the types of student personnel services provided in Colleges of Education and Polytechnics in Osun State. The result showed that 82.2% of the respondents indicated that the admission process was one of the students' available personnel services. Also, 81.3% of the respondents expressed that students' orientation services were available while 63.3% of the respondents expressed that counseling services were available. As well, 78.6% indicated that course registrations were done online. Result checking online was confirmed by 68.7% of the respondents. Hostel services were available

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as claimed by 42.9% of the respondents. Electronic services were confirmed by 42.9% of the respondents, while 58.9% indicated that health services were available. In addition, students' personnel services concerning sports and recreation were available: this was indicated by 59.8% of the respondents. Thirty-six-point six percent (36.6%) indicated that a financial aid service was available. In the Polytechnics, 78.5% of respondents indicated that admission process services were available. Students' orientation services were claimed to be available by 83.5% of the respondents. Counseling services were available as indicated by 76.9% of the respondents. Course registrations were done online as reported by 79.3% of the respondents. Also, 85.1% of the respondents revealed that result checking was online. As well as 78.5% of the respondents showed that hostel services were available. Electronic services were available as claimed by 82.6% of the respondents. Students' personnel services concerning health care services were indicated by 75.2% of the respondents to be available. Finally, 76.8% of the respondents showed that sports and recreational services were available and 37.2% indicated that financial aid services were available.

By implication, it can be inferred from the analysis that 81% of all the respondents confirmed that students' personnel services were available in Osun State colleges of education and polytechnics. These services were more provided in Polytechnics than in Colleges of Education.

3.2. Research question 2: What are the existing digitalization facilities in Osun State Colleges of Education and Polytechnics?

To determine the types of existing digitalization facilities provided in Osun State Colleges of Education and Polytechnics, percentage scores were used to analyze the data collected as presented in **Table 2**.

Table 2. Digitalization facilities in Osun State Colleges of Education and Polytechnics.

Institutions	Colleges of Education		Polytechnic		Total
Items	A	NA	A	NA	N (%)
Desktop computer	151(82.1%)	33(17.9%)	171(89.3%)	21(10.7%)	376(100)
Laptop computer	113(61.6%)	71(38.4%)	143(74.3%)	49(25.7%)	376(100)
Palmtop computer	79(42.8%)	105(57.2%)	67(34.7%)	125(65.3%)	376(100)
Printer	138(75.0%)	46(25.0%)	163(85.1%)	29(14.9%)	376(100)
Spy phone, iPhones	69(37.5%)	115(62.5%)	100(52.1%)	92(47.9%)	376(100)
Projector	112(60.7%)	72(39.3%)	116(60.3%)	76(39.7%)	376(100)
Internet	115(62.5%)	69(37.5%)	147(76.9%)	45(23.1%)	376(100)
Intranet	64(34.8%)	120(65.2%)	138(71.9%)	54(28.1%)	376(100)
VSATs	53(28.6%)	131(71.4%)	124(64.5%)	68(35.5%)	376(100)
E-surveillance	58(31.3%)	126(68.7%)	100(52.1%)	92(47.9%)	376(100)
Digital camera	108(58.9%)	76(41.1%)	71(37.2%)	121(62.8%)	376(100)
Speech recognition	69(37.5%)	115(62.5%)	60(31.4%)	132(68.6%)	376(100)
Solar system	77(42.0%)	107(58.0%)	132(68.6%)	60(31.4%)	376(100)
Video conferencing	59(32.1%)	125(67.9%)	57(29.8%)	135(70.2%)	376(100)
MS-Office	123(66.9%)	61(33.1%)	163(85.1%)	29(14.9%)	376(100)
MODEM	108(58.9%)	76(41.1%)	179(93.3%)	13(6.7%)	376(100)
Graphic package	94(50.9%)	90(49.1%)	165(85.9%)	27(14.1%)	376(100)
Web-development	99(53.6%)	85(46.4%)	151(78.5%)	41(21.5%)	376(100)

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Table 2 showed students' responses to the digitalization facilities in Osun State Colleges of Education and Polytechnics. The result shows that 82.1% of the respondents reported that desktop computers were available; 61.6% of respondents indicated that laptop computers were also available for use; 42.8% showed that palmtop computers were available, while 75.0% of the respondents claimed that printers were in existence. iPhone was in use as affirmed by 37.5% of the respondents. Also, 60.7% of the respondents indicated that projectors were available. Internet was one of the digitalized facilities available as indicated by 62.5% of the respondents.

The intranet was in use as indicated by 34.8% of the respondents, and VSATs were installed for use as shown by 28.6% of the respondents. E-surveillance was affirmed by 31.3% of respondents. In addition, 58.9% of respondents showed that digital cameras were available while 37.5% of respondents confirmed speech recognition. Also, 42.0% of respondents indicated the existence of a solar system and 32.1% for video conferencing. Sixty-six-point nine percent (66.9%) of the respondents confirmed that MS Office was in use, while 58.9% confirmed the usage of the modem. Also, graphical packages were available for use as indicated by 50.9% and 53.6% of the respondents showed that web development was available.

In the Polytechnics, the result shows that 89.3% of the respondents reported that desktop computers were available; 74.3% of them revealed that laptop computers were equally available. Palmtop computers were also available as indicated by 34.7% of the respondents. Printers were found to be in use as 85.1% of respondents indicated it, and 52.1% affirmed that iPhones were equally available for use. Also, the projector was one of the digitalized facilities available as indicated by 60.3% of the respondents.

In addition, internet facilities were available as indicated by 76.9% of respondents; 71.9% of the respondents showed that intranet was available; 64.5% indicated that VSATs were available for use. Fifty-two-point one percent (52.1%) of the respondents indicated that e-surveillance was used in their schools while 37.2% of respondents confirmed digital cameras, 31.4% showed indication for speech recognition. As well, 68.6% of respondents indicated the use of solar systems while 29.8% confirmed the use of video conferencing.

Also, 85.1% of them reported that MS Office was in use, while 93.3% confirmed that Modem was available. Eighty-five-point nine percent (85.9%) and 78.5% of the respondents affirmed the usage of the graphic package and web development in their institutions. By implication, it can be inferred from the analysis that 81.7% of the respondents confirmed that all the itemized digitalization facilities were available in Osun State Colleges of Education and Polytechnics.

In addition, the report from the observation checklist on the Digitalization of Information Facilities Checklist (DIFC) confirmed the analysis of respondents' responses in Tables 2 and 3. It was also observed by the researcher that some digitalization facilities such as computers, photocopy printers, solar systems, antennas, and mast were also available in the selected institutions in Osun State.

3.3. Research question 3: What are the differences in the digitalization usage and students' personnel services in these Colleges of Education and Polytechnics?

To ascertain the difference in the digitalization usage and students' personnel services in Colleges of Education and Polytechnics in Osun State. Percentage scores were used as reported in **Table 3**.

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Table 3. Digitalization usage and students' personnel services in Osun State Colleges of Education and Polytechnics.

Institutions	Colleges of Education		Polytechnics		Total
Items	A	D	A	D	N (%)
ICT and orientation services	125(68.2%)	59(31.8%)	103(53.7%)	89(46.3%)	376(100%)
ICT and hostel registration	95(51.8%)	49(48.2%)	90(47.1%)	102(52.9%)	376(100%)
ICT and internet usage	138(75.0%)	46(25.0%)	160(83.5%)	32(16.5%)	376(100%)
ICT and students learning	146(79.5%)	38(20.5%)	162(84.3%)	30(15.7%)	376(100%)

Data from **Table 3** reflects the digitalization usage and student personnel services in Osun State Colleges of Education and Polytechnics. In the Table, respondents indicated different views of responses to items one and two in the Colleges of Education. Respondents indicated that 68.2% agree on ICT and student's orientation services and 51.8% on ICT and hostel registration. Respondents indicated similar views on items three and four, that is, 75.0% on ICT and internet usage, and 79.5% on ICT and student learning.

In the Polytechnics, 53.7% of respondents indicated different views on ICT and orientation and 47.1% on ICT and hostel registration respectively but indicated similar views of 83.5% on ICT and internet usage, and 84.3% on ICT and student learning respectively.

3.4. Research Hypothesis Ho: There is no significant difference in the digitalization of information and students' personnel services in Osun State Colleges of Education and Polytechnics

To ascertain the difference in the digitalization of information and students' personnel services in Colleges of Education and Polytechnics in Osun State. One Way ANOVA was used as shown in **Table 4**.

Table 4. Analysis of test of One-Way ANOVA comparing the digitalization of information and students' personnel services in each of the institutions.

Institutions	Variables	Students Personnel Service	Sum of Square	Df	Mean Square	F-Ratio	Sig.
Colleges of Education	Digitalization facilities usage	Between groups	2.685	2	3.526	4.474	0.393
		Within groups	4.205	182	2.556		
		Total	6.890	184	4.252	4.612	0.490
Polytechnics		Between groups	3.501	2	2.652		
		Within groups	5.177	190			
		Total	8.678	192			

In **Table 4**, the result showed the differences in digitalization of information and students' personnel services in Osun State colleges of education and polytechnics. It can be observed that digitalization usage had a significant difference in students' personnel services in the Colleges ($F=4.47$; $p<0.005$). The hypothesis was rejected because the calculated F-ratio was found to be greater than the critical F-ratio of 3.00 at 0.05level of significance and with 184 degrees of freedom. The study showed that results of digitalization usage had a significant difference in students' personnel services in Polytechnics with ($F=4.61$; $p<0.005$). The hypothesis was rejected because the calculated F-ratio was found to be greater than the critical F-ratio of 3.07 at 0.05level of significance and with 192 degrees of freedom. By

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implication, the result showed there was a significant difference in the digitalization of information and student personnel services in Osun State Colleges of Education and Polytechnics.

4. DISCUSSION

The result showed that the admission process, student orientation services, counseling services, course registration, result checking, health care services, sports, and recreation were the types of student personnel services provided for students in Colleges of Education. Also, the result showed that the admission process, student orientation services, counseling services, course registration, result checking, hostel services, electronic services, health care services, and sports and recreation were provided for students in Polytechnics. This agrees with the research of Jennifer, which indicated that the average student felt that services were needed for adequate learning in higher institutions. Also, this is in correlation with the study of Bradley, which showed that campus recreation influenced students' decision in attending a particular institution.

As well, the result showed that desktop computers, laptop computers, printers, projectors, internet, digital camera, MS-Office, Graphic package, and web development were the digitalization facilities available in Colleges of Education. Results further showed that desktop computers, laptop computers, printers, projectors, internet, intranet, VASTs, E-surveillance, solar system, MS Office, Graphic package, and web development were existing digitalization facilities available in the Polytechnics.

Buendia *et al*. (2004) buttresses these findings when he asserted that the school system is witnessing a hysterical explosion in school enrolment which necessitates more and better-digitalized facilities for the schools, and invariably, more funds are required in the educational system. Holding a similar view, Merriam (2007), postulated that learning acquisition in technology helps to increase the student's confidence and self-esteem. This is in line with the hypothesis result which showed that digitalization usage facilitates students' personnel services. It was noted from the results analysis and observation checklist that the digitalization facilities in polytechnics out stood that of the colleges of education. Further results showed that students' personnel services rendered in polytechnics are on the high side compared to that of colleges of education in Osun State.

Also, there was a significant difference in the digitalization usage in Colleges of Education and Polytechnics in Osun State. It was noted from the results analysis and observation checklist that the digitalization facilities in Polytechnics out stood that of the Colleges of Education. Further results show that students' personnel services rendered in Polytechnics are on the high side compared to that of Colleges of Education in Osun State. Therefore, the null hypothesis was rejected.

5. CONCLUSION

The study concluded that the existing digitalization facilities enhance students' personnel services in Osun State Colleges of Education and Polytechnics. Equally, a significant difference was found in digitalization usage and student personnel services in Osun State Colleges of Education and Polytechnics. Based on the findings of the study, the following recommendations were made:

(i) Colleges of Education should put more effort to make sure that student personnel services provided for their students are more digitalized and not only efficient but effective.

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(ii) Information concerning scholarships, bursaries, and other available financial services for students should be posted on the school website and announced on the school radio station (if available) for students' awareness.

(iii) The students' affairs staff in Colleges of Education and Polytechnics should make themselves approachable to the students by attending to students in time and friendly manner.

(iv) Programs should be organized by the appropriate units that see to the provision of students' personnel services to enlighten the students on the available students' services and the need for them to make effective use of the services.

The National Commission for Colleges of Education (NCCE) and National Business Technical Examination Board (NABTEB) should ensure that Colleges of Education and Polytechnics also comply with the 2017 deadline for the switch off from analog to digital signal and facilities upgrade in the information communication technology sector as part of movement and changes in the global scene.

6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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