

Impact of ClassDojo Technology usages on Academic disposition and intellectual perception of Students in Federal Colleges of Education in North-West Zone, Nigeria

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Abstract: *The Study focused on the impact of ClassDojo Technology usages on Academic disposition and intellectual perception of Students in Federal Colleges of Education in North-West Zone, Nigeria. The study adopted survey research design. The population of the study consisted of 628 which include 576 Students and 52 lecturers respectively from seven (7) Federal Colleges of education in North-West Zone, Nigeria. Simple random sampling technique was used to select the sample. From the population of 628, a Sample size of 52 and 462 of lectures and students were selected. The study was guided by three objectives and three research questions. Questionnaire was used as an instrument for data collection. The instrument used for data collection was validated and reliability index of 0.75 was found. The data obtained was analysed using descriptive statistics of mean and standard deviation. The major findings of the study revealed that, ClassDojo Technology has a positive impact on students' academic disposition and intellectual perception as it makes course content meaningful, understanding and enhance students' performances in the class despite the difficulty involved in the use of ClassDojo Technology for teaching and learning. Moreover, majority of the respondents show positive attitude towards the use of ClassDojo as they generally believe ClassDojo Technology enhances teaching-learning effectiveness. The study therefore recommends that, lecturers should be encouraged to use ClassDojo Technology as it enhances teaching and learning effectiveness. There should be periodical training on the use of ClassDojo Technology and other related application software for teaching and learning through workshop, seminars and in-house training. Government and other related agencies should encourage students by providing available materials such as computers and other related software to ensure effective teaching and learning.*

Keywords: *ClassDojo Technology; Teaching; learning.*

INTRODUCTION

Recent advances in modern technology have created a surplus of electronic devices and new Applications available to lecturers and students at all levels. Technology has opened up prospects for rich and innovative approaches to tackle educational issues and provide solutions to the increasing demands for learning resources. The explosion of some media Applications and platforms in recent years as well as the proliferation of technological devices through which to communicate has revolutionized the global social sphere in the last decade. The introduction of Information and Communication Technology to teaching and learning process has given rise to improvement of the

learning environment and the process of knowledge acquisition and dissemination at all levels of education. The technological diversity in this 21st century has therefore made this search for pedagogical tools even more confusing and demanding as there are numerous digital media that could be adopted into instructional processes to enhance instructional practices and delivery; thereby, leaving instructors with the capability of making right choices of what and when to adopt a particular medium. It has been observed that today's students are more technologically knowledgeable than their older generations and therefore tend to use different, sophisticated and portable teaching and learning media especially for watching, play games and communicating with friends. (Williams & Eberchuku, 2018). With the vital things ICT offers, colleges of education are now seeking for new ways to restructure their educational curricula and classroom management to bridge the gap existing in education by use of technology. Technology can be sign that can make teaching and learning more easy, effective and productive especially in the institutions of higher learning where majority of the students are developed enough to handle the mobile tool properly, effective learning takes place through the adoption and utilization of science and technology (Yusuf, *et al.*, 2018). The advantages that technology provides to training and learning include not only the possibility of one-on-one interaction for every learner but also the ability to simulate new ideas, the chance to try things out at one's own pace and to fail in private without the fear of ridicule from other students.

Technology makes open revolution in Education and new technologies emerged in teaching and learning, where e-learning becomes an integral part of technology in education in its all aspect. The Internet has also become an important instructional tool to facilitate the transfer of many types of information from one computer to another, and is rapidly becoming an effective means of communication in schools and colleges. The use of technology is globally recognized due to its contributions to human existence and socio-economic development. Therefore, educators' ability to choose the right technology/technologies for instructional purposes becomes necessary to meet up with the diverse learning needs of today's learners' for their improved academic outcome and performance in the larger society. These technologies provide opportunities for educators to create several new strategies and ways of reaching students. Among several recent technologies that can assist instructors in the conveyance of instructional content or providing teaching, communication to learners is ClassDojo Technology.

ClassDojo is a free behavioural management software program that allows Lecturers to provide behaviour specific praise digitally to students in real-time. It is a free online Application Software Programme that is accessible through computers and mobile devices; it was created as a way to help Lecturers manage both positive and negative student behaviours (Connie, 2017). ClassDojo has also been instrumental in providing teaching, communication, and data analysis tools to help Lecturers facilitate, track and report student progress in real-time. ClassDojo is a free application, with an intuitive user interface that can be appealing to Lecturers who are not necessarily familiar with teaching activities (Hatice and Ibrahim, 2018), or who wish to integrate technologies in their classroom in a low-risk manner. For instance, Lecturers can choose specific features to suit classroom activities or customize points to align with a teacher's concept of positive or negative behaviours.

In the classroom setting a teacher could simply click on a student's avatar, select the observed positive behaviour and award that student a point. The student would immediately receive notification of the point awarded and what behaviour they conveyed to earn that point. Through the use of Class Dojo, the teacher is able to practice affinity seeking strategies by providing students behaviour-specific praise digitally throughout the day's lesson. They accomplish this by acknowledging and tracking when students do something right, and reaching out to let them know they have seen and acknowledge what they have done. Such actions align with the concepts of assertiveness. The use of immediate behaviour-specific praise, via the use of the Application

ClassDojo may convey the teacher's ability to practice assertiveness and responsiveness in the classroom (Kris, 2017).

Meanwhile, ClassDojo has raised numerous ethical concerns among parents and teaching professionals including privacy worries over its collection and storage of sensitive student data. There are also philosophical concerns regarding ClassDojo long-term impact on teacher-student interactions and its pedagogy because the software encourages behaviourist, and token economy-based approaches to teaching and learning. ClassDojo is not only decided by its affordances, but is also multi-variant across users and contexts. ClassDojo, however, has the added benefits of being a fully-accessible online system that can be utilized by multiple users across various devices in real-time. Additionally, the integrated points system, embedded class activities, customizable avatars, class e-Portfolio system, and the free cost makes ClassDojo a comprehensive, pre-packaged platform that appeals to Lecturers. ClassDojo also serves as a classroom social platform “community” and a communication system because Lecturers can efficiently share student activities or generate summary reports for parents and guardians.

Despite the beneficial role that Class Dojo Technology plays, there are some other challenges for using Class Dojo Technology in teaching and learning, there is little emphasis in the literature on impact of Class Dojo on Academic disposition and intellectual perception of students (Connie, 2017). Another challenge is the limited access to the online Application because of low bandwidth on the network. Furthermore, not all lecturers have the knowledge to use ClassDojo technology as instructions. To facilitate and motivate students to learn independently while outside the class also becomes another obstacle for Students. Some studies have reported that, in the use of Class Dojo technology for learning activities, not all students are able to study independently.

It's on this background that the researchers wants to find out the impact of ClassDojo Technology Usages on Academic disposition and intellectual perception of Students' in Federal Colleges of Education in North-west zone, Nigeria.

Objectives of the Study

The main aim of this study is to determine the Impact of ClassDojo Technology usages on Academic disposition and intellectual perception of Students in Federal Colleges of Education in North-West Zone, Nigeria. Based on this, the objectives of the study in specific terms are:

1. To find out the impact of ClassDojo Technology on students' Academic disposition and intellectual perception in federal colleges of education in North-west Zone, Nigeria
2. To determine Lecturers' and Students' Perceived ease of use of ClassDojo Technology for teaching and learning.
3. To examine Lecturers and Students Attitude towards the use of ClassDojo Technology for teaching and learning.

Research Questions

The following Research Questions would be used to guide the study:

1. What is the impact of ClassDojo Technology on students' Academic disposition and intellectual perception in federal colleges of education in North-west Zone, Nigeria?
2. To what extent does Lecturers and Students Perceived Ease of Use of ClassDojo Technology for teaching and learning?
3. What is the Lecturers and Students Attitude towards the use of ClassDojo Technology for teaching and learning?

Statement of the problem

Some of the challenges in learning stem is that: there is a lack of communication amongst lecturers (Michael, 2015), which then affects students who are supposed to benefit from all their lecturers.

This then give rise to the need for new forms or platforms for leaning that standardize the learning process. This study makes the case that ClassDojo is one of those platforms. Class Dojo is becoming a prominent platform for students to self-teach and enhance the learning skill for formal assessments in class.

One of the main problems facing most federal colleges of education and other institution of higher learning today is the inability to use relevant technological tools to improve students' Learning. ClassDojo Technology has recently become popular in the 21st century as instructional tool available for educators in the classroom. Most developed countries educators attest to their significant effects on students' academic Learning. Though, these technologies have disruptively transformed classroom face-to-face lecture delivery method to portable on-demand multimedia files, however, their impacts in the improvement of academic Learning of students in federal Colleges of Education in North-West Zone, Nigeria have not yet been proven. The concern of this study is to find out whether ClassDojo Technology has an impact on students learning in Federal Colleges of Education in North-West Zone, Nigeria.

Literature Review

Researches have shown that many countries have moved to the use of diverse sets of Technological tools for teaching and learning so as to meet up with the demands of ICT age. Furthermore, it has been observed that today's students are more technologically knowledge than their older generations and therefore tend to use different, sophisticated and portable teaching and learning media especially for watching, play games and communicating with friends. (Williams and Eberechuku, 2018).

Ana and Christina (2018) carried out a research to investigate the Impact of ClassDojo Technology in Teacher Education: from consumers to producers. The study was carried out in University of Minho, Portugal. Descriptive survey Research design was employed for the study. The population of the study consisted of 82 students from three different educational courses which include educational Biology and two other courses. Descriptive research design was employed for the study. Questionnaire was used as an instrument for data collection. The result showed to be receptive to have ClassDojo in other courses. The undergraduate students only interact with their colleagues. The Master students created their own ClassDojo to get familiar with them and to understand how easy it is to create them. They mentioned that they realized the importance of its use in learning. The study recommended that, teachers should adopt the use of class dojo Technology as it yield positive result at the course of instruction.

Halili and Zainuddin (2019) in their study revealed that colleges of education and other institution of higher learning worldwide are moving more and more towards the use of online application software. More over Some studies have reported that, the use of ClassDojo Technology for learning activities has made learning activities easier, not all students are able to study independently.

The study conducted by Ibrahim and Shalizad (2020), showed that ease of use, usefulness and attitudes towards use influenced the adoption of ClassDojo Technology, while perceived enjoyment was found not to influence adoption of ClassDojo Technology.

Ana, (*et al.*, 2019) investigated the use of ClassDojo Technology in higher education: students' and lecturers' perspectives, revealed in their research that, ClassDojo Technology is an effective tool in delivering content, feedback, guidelines, etc. Most of the students accepted quite well the ClassDojo, but they did not take the advantage of its use to them in their mobile devices. Lecturers considered that ClassDojo is not time-consuming but there is a lack of institutional recognition of their teaching effort. However, they intend to continue using ClassDojo in their courses. Due to the positive results achieved.

Guldeniz, (*et al.*, 2021) carried out a Research to determine the impact of the ClassDojo tool on students' attitudes towards English courses and to reveal students' and parents' opinions about how it affects student behaviour. It was revealed that, ClassDojo Technology affects the students' attitudes towards English course significantly negative. On the other hand, both students and parents expressed positive views about ClassDojo, and it has been demonstrated that this application software contributed significantly to students' positive behaviours.

However, developing countries evidence from the Nigeria experience is posed with the challenge of shifting from the traditional teaching method to the online application software during the Teaching and learning.

METHODOLOGY

Research Design

The research design adopted for the study is the Descriptive survey research design. It was considered appropriate for this study because it give the researchers the opportunity to collect data from a sample of defined population (Awotunde & Ugodulunwa, 2018). The researchers will use questionnaire as a means of data collection.

Population

The target population of the study consists of all N.C.E III students offering Computer science as a course of study with their respective Lecturers in Federal Colleges of Education in North West zone, Nigeria totalling 628 which includes 576 Students and 52 lecturers respectively.

Sample

From the population of 628 a Sample size of 52, 462, and 514 of lecturers, students and total sample size respectively are to be used for the study in order to facilitate effective representation of respondents. The sample size of the study was determined using Raosoft online application software (2024). The samples chosen are in line with Awotunde and Ugodulunwa (2018) who recommended 30% of the population to be the minimum sample in a survey research.

Instrument for Data Collection.

The researchers adapted Lecturers and students' questionnaire tagged as Lecturers and students structured Questionnaire (LSSQ) in order to find out the Lecturers and students Ease of use, Usefulness and Attitude towards the use of ClassDojo for teaching and Learning of Computer Science in Federal Colleges of Education in North West Zone Nigeria, based on the four points Likert's scale rating i.e. strongly agreed (SA), Agreed (A) `Disagreed (D) and Strongly Disagreed (SD). The questionnaire will consist of three sections, i.e. section A, B and C. Section A, introduction, Section B, Demographic information of the respondent while section C deals with lecturer's and Students' opinion. The questionnaire consist a total of 27 items of the instrument.

Validity of the instrument

The instrument was subjected to the assessment of two experts, these experts examined the items of the instrument in relation to suitability for both content and construct validity; the items were modified to 27 items to enhance the face and content validity.

Reliability of the instrument

For the reliability of the instrument, 10 questionnaires were administered to some lecturers and students not participated in the study and the reliability index of 0.71 was obtained using Cronbach alpha.

RESULT

Data Analysis.

The data collected was analysed using simple descriptive statistics of mean and standard deviation to answer the foregoing research questions as follows:

Research Question one: What is the impact of ClassDojo Technology on students' Academic disposition in federal colleges of education in North-west Zone, Nigeria?

Table 1 Students' Academic Disposition and intellectual perception on ClassDojo Technology

S/N	ITEMS	N	SA	A	D	SD	Mean	Std	Remark
1	ClassDojo Technology makes the course content meaningful and understanding to students	514	280	180	34	20	3.40	1.89	
2	ClassDojo Technology encourage students to learn	514	292	183	28	11	3.47	1.85	
3	It encourage concrete thinking rather than abstract	514	300	170	24	20	3.46	1.85	
4	It always improve students performances in the class	514	276	166	40	32	3.33	1.85	
5	It makes students to learn what they need to know	514	284	179	30	21	3.41	1.85	
6	It improve teaching and learning effectiveness	514	290	187	20	17	3.46	1.85	
7	It makes students pay more attention at the course of instruction	514	302	188	14	10	3.52	1.89	
8	I find more interesting in teaching and learning when using ClassDojo Technology	514	294	181	21	18	3.46	1.85	
CLUSTER MEAN							3.44	1.86	Accept

Scale = Disagree (D) = (1.5-2.49); Agree (A) = (2.50-4.00)

Table 1 show that, lecturers and students in the study expressed positive perception as agreed for all of the items raised. This indicated that, the participants agreed on the benefit of ClassDojo Technology for teaching and learning as agreed with most of the items seeking their responses. The cluster mean was 3.44 which was above the mean criterion of 2.50 set as standard for a Likert scale. This indicated that, Lecturers and students agreed on the benefit of ClassDojo Technology. The standard deviation was relatively high which implies that the respondents' responses revolved above the mean.

Research Question two: To what extent does Lecturers and Students Perceived Ease of Use of ClassDojo Technology for teaching and learning?

Table 2 Perceived Ease of Use of ClassDojo Technology

S/N	ITEMS	N	SA	A	D	SD	Mean	Std	Remark
1	I find ClassDojo Technology application software very easy to use	514	44	70	150	250	1.82	0.41	
2	Learning how to use ClassDojo Technology application software is easy for me	514	120	80	180	134	2.36	1.18	
3	The use of ClassDojo Technology application is more convenient to access information anywhere any time	514	48	64	156	246	1.83	0.54	
4	It makes students and lectures to communicate with ease	514	46	30	255	183	1.88	0.41	
5	ClassDojo as online application software is reasonable affordable to any internet provider	514	50	34	280	170	1.94	0.51	
6	It greatly improve my teaching and learning styles	514	48	61	223	182	1.95	0.51	
7	The use of ClassDojo Technology simplifies access to educational materials	514	55	66	144	249	1.86	0.41	
8	Sharing of information via ClassDojo is simple and flexible	514	280	180	34	20	3.40	1.85	
CLUSTER MEAN							2.13	0.73	Reject

Scale = Disagree (D) = (1.5-2.49); Agree (A) = (2.50-4.00)

Table 2 revealed that participants in the study found ClassDojo Technology application software very difficult to use for teaching and learning as they disagreed with most of the items provided. The cluster mean was 2.13 which was below the mean criterion of 2.50 set as standard for a Likert scale. This indicated that, lecturers and students in the study found ClassDojo Technology application software not easy to use for teaching and learning. The standard deviation was also relatively low which implies that, the respondents' responses revolved round the mean.

Research Question three: What is the Lecturers and Students Attitude towards the use of ClassDojo Technology for teaching and learning?

Table 3 Lecturers and students Attitude towards the use of ClassDojo Technology

S/N	ITEMS	N	SA	A	D	SD	Mean	Std	Remark
1	ClassDojo application software is good for teaching and learning	514	292	183	20	19	3.45	1.85	
2	I feel positive towards the use of ClassDojo Technology	514	296	194	10	14	3.50	1.89	
3	I fell negative towards the use of ClassDojo Technology	514	48	64	156	246	1.83	0.54	
4	I believe ClassDojo Technology helps to be engage in teaching and learning	514	280	178	35	21	3.39	1.85	
5	I believe it is good to be skills full in modern Technology	514	292	183	28	11	3.47	1.85	
6	I generally favour the use of ClassDojo Technology for teaching and learning	514	290	187	20	17	3.46	1.85	
7	I believe it is good for me to use ClassDojo application software for any future work	514	268	190	37	19	3.36	1.89	
8	I believe ClassDojo Technology application software enhances teaching-learning effectiveness	514	306	183	15	10	3.53	1.89	
CLUSTER MEAN							3.25	1.70	Accept

Scale = Disagree (D) = (1.5-2.49); Agree (A) = (2.50-4.00)

Table 3 has shown that, participants in the study expressed positive attitude for all of the items raised. This indicated that, the participants agreed on the use of ClassDojo Technology for teaching and learning as agreed with most of the items seeking their responses. The cluster mean was 3.25 which was above the mean criterion of 1.70 set as standard for a Likert scale. This indicated that, Lecturers and students agreed on the use of ClassDojo Technology for teaching and learning. The standard deviation was relatively high which implies that the respondents' responses revolved above the mean.

DISCUSSION OF FINDINGS

The study was aimed at finding out Impact of ClassDojo Technology usages on Academic disposition and intellectual perception of Students in Federal Colleges of Education in North-West Zone, Nigeria. Statistical analysis used in the study was mean and standard deviation of descriptive statistics for answering three (3) research questions.

The findings showed that, ClassDojo Technology has a positive impact on students' academic disposition and intellectual perception in federal Colleges of education in North-West Zone, Nigeria as the respondents agreed with the items rose in the questionnaire. Because the cluster mean of 3.44 and standard deviation of 1.86 is above the decision rule of 2.50 set as standard for a likert scale which shows that ClassDojo application software has a positive impact for teaching and learning. This finding is in accordance with Ana, *et al.* (2019) whose study revealed that ClassDojo Technology is an effective tool in delivering content, feedback and guidelines which could enhance the learning productivity of students. Moreover, with regard to lecturers and students perceived ease of use of ClassDojo Technology for teaching and learning, it shows that, there is a difficulty in the use of ClassDojo Technology for teaching and learning as participants disagreed with most of the items provided. The cluster mean of 2.13 and standard deviation of 0.73 is below the decision rule of 2.50 set as standard for a likert scale. This shows that ClassDojo Technology found not easy to use. This could be due to the fact that, Nigerian lecturers most especially in Federal Colleges of education in North-West Zone, Nigeria were not ready to integrate technology in teaching and learning because they were not trained to do so. This is contrary with the findings of Hary, (*et al.*, 2022) whose study revealed that, ClassDojo Technology was very simple and easy to use.

However, on the attitude of lecturers and students toward the use of ClassDojo Technology for teaching and learning, it shows that, majority of the respondents expressed positive attitude toward the use of ClassDojo. Because the cluster mean of 3.25 and standard deviation of 1.70 is above the mean criterion of 2.50 set as standard for a Likert scale which indicated that, lecturers and students agreed with most of the items on the questionnaire. The findings of the study also confirmed the findings of David (2018) whose study revealed that, the college students had a positive attitude towards the teaching and learning of social studies using ClassDojo Technology.

C ONCLUSION

From the foregoing discussion shows that, ClassDojo Technology has a positive impact on students' academic disposition and intellectual perception as it makes course content meaningful and understanding, encourage students to learn and enhance students' performances in the class despite the difficulty involved in the use of ClassDojo Technology for teaching and learning. Moreover, most of the lecturers and students shows positive attitude towards the use of ClassDojo as they generally favour the use of ClassDojo Technology and also believe ClassDojo Technology enhances teaching-learning effectiveness.

RECOMMENDATIONS

1. Lecturers should be encouraged to use ClassDojo Technology as it enhances teaching and learning effectiveness.
2. There should be periodical training on the use of ClassDojo Technology and other related application software for teaching and learning through workshop, seminars and in-house training.
3. Government and other related agencies should encourage students by providing available materials such as computers and other ICT related software to ensure effective teaching and learning.

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