



EXTENT OF UTILIZATION OF SOCIAL SOFTWARE TECHNOLOGIES FOR ENHANCING SELF-REGULATED LEARNING BY BUSINESS EDUCATION STUDENTS IN ANAMBRA STATE, NIGERIA

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Abstract

The need to improve students' self-regulated learning necessitated this study to determine the extent of utilization of social software technologies for enhancing self-regulated learning by business education students in Anambra State, Nigeria. Two research questions guided the study. The study adopted descriptive survey research design and the population of the study comprised 150 (48 male and 102 female) 2018/2019 academic session final year business education students in the two tertiary institutions where business education programme is offered. There was no sampling since the population was manageable. A questionnaire which was validated by three experts in the field of business education and measurement and evaluation was used for data collection. The reliability of the instrument was established using pilot study and analysis carried out using Cronbach alpha method yielded correlation coefficients of 0.88 and 0.81 for cluster B1 and B2 respectively with an overall value of 0.85. Mean and standard deviation were used for data analysis. Findings showed that business education students are not utilizing social software technologies to self-regulate their learning and to develop their self-regulated learning strategies. The researchers recommended among others that; business education lecturers should incorporate social software technologies in instructional delivery. This is because their students must learn to use these technologies that workers use in professional careers. Failing to do so will widen already existing gap between industry and university education.

Keywords: *Utilization, Social Software Technologies, Self-regulated Learning and Business education*

Introduction

Education plays an important role in maintaining the socio-economic growth and development of a country. This is why every nation is striving to adopt the best educational delivery system to transmit knowledge for a sustainable future development. Currently, the field of education is undergoing vital changes in areas of



teaching and learning because of the advent of digital technologies. Digital technologies are electronic tools, systems, devices and resources that generate, store or process data. Digital technologies represent an open gateway to new learning alternatives, and favour acquisition of practical skills (Bernacki, Aguilar & Byrnes, 2011). They are electronic devices that provide opportunities for individualized instruction; accelerate students' acquisition of knowledge in active, self-directed and constructive ways. Digital technologies include; computers, internet technologies, multimedia and mobile phones, and social software technologies among others.

Social software technologies are digital technologies that make collaboration, social interaction and feedback possible for students. Social software technologies are communication and interactive tools (WhatsApp, Line, Skype, Google Talk), repositories (Slideshare, Instagram, Pinterest, Youtube and iTunes), and social network tools (Twitter, Facebook) among others that can be used in enhancing learning (Yot-Domínguez & Marcelo, 2017). The importance of social software technologies in education according to Beeland (2017) is that, they facilitate students' academic learning and achievement when effectively utilization. Beeland further stated that students' motivation, which is one of the main teachers' concerns in the classroom, can be improved through effective utilization of social software technologies. Furthermore, social software technologies provide multiple opportunities for team work and collaborations using web 2.0 and 3.0 online applications that allow text-based documents and presentations to be uploaded and accessed from any computer with a connection to the internet and collaboratively edited (Gillen & Barton, 2010). This would enable a group of students to work on the same document even when not in the same physical space at the same time. When students participate in collaborative group work, they need to share ideas, enter into negotiations when those ideas do not align with others in the group. Learning how to collaborate using social software technologies can thus, help students to develop skills in flexibility, cooperation, listening and compromise

Students are assumed to be utilizing social software technologies with greater ease for enhancing not only skills in speaking, listening, reading and writing, but also critical thinking and collaboration skills (Chelghoum, 2017). This is because the students represent the first generations to grow up with digital technologies. As a result, they are being called “digital natives” (a new generation that has grown up with technologies) (Prensky in Hayes, 2019). This is against the “digital immigrants” (individuals born and raised prior to the digital age). These people did not grow up with ubiquitous computing or the internet, and so, have had to learn and adapt to the



new languages and practices of digital technologies. In view of this fact, students (business education students inclusive) are expected to be utilizing social software technologies in self-regulating their learning (Kitsantas & Dabbagh, 2011).

Self-regulation refers to the process of learning that results to students' cognitive control and achievement. It encompasses goal-directed activities which allow the learners to actively engage in the learning practices rather than remain passive recipients of knowledge poured by their teachers (Schunk & Zimmerman, 2003). Schunk and Zimmerman further defined self-regulated learning as the process that assists students in managing their thoughts, behaviours, and emotions in order to successfully navigate their learning experiences. It enables the students to set learning objectives to be successful learners. Self-regulated learning is a self-directive process that enables students to transform their mental abilities into academic skills. It is a regular and mental knowledge process in which learners engage very actively until their learning objectives are realized (Zimmerman, 2008). Students' acceptance of responsibilities for their learning is the nucleus of self-regulated learning (Becker, 2011). Becker stated that the goals of self-regulated learning is updating skills, acquiring new knowledge, and solving new problems. The author averred that self-regulated learning is closely intertwined with the constructivist perspective where learners are active in their learning and construct meaning internally rather than passively receiving knowledge from external sources. Furthermore, Zimmerman (2000) developed a cyclical model of self-regulation from social-cognitive theory and research. This model has been successfully applied to education, and includes three phases:

- a. Forethought phase: Consists of processes that precede any effort; and involve the beliefs and attitudes of students in goal-setting and strategic planning.
- b. Performance control phase: Represents processes occurring during learning efforts and include self-control and self-observation.
- c. Self-reflection phase: Processes occurring after learning or performance, and involves reflecting on the self-monitored information to evaluate one's performance and to make adjustments during future learning attempts. The two general processes in this phase are self-judgments and self-reactions.

Developing self-regulated learning by business education students could be facilitated by utilizing social software technologies. Business education students could utilize communication technologies such as WhatsApp, Skype and Google



Talk to exchange academic information, solve self-doubts, and carry out online discussions with course mates. They could also utilize repository technologies such as Slideshare, Instagram, Pinterest, Issuu, Calameo, Youtube and iTunes to review specific materials obtained for studies. Production and storage technologies (wikis & blogs, Dropbox, Google +) could be use for collaboration while multimedia technologies such as podcast and video could be used to listen to the previously recorded lesson. Utilization of these social software technologies can help business education students further their subject knowledge, to apply their existing knowledge to their learning and to understand how software technologies can be used appropriately in the workplaces. In agreement, Watty, McKay, Ngo, Holt, McGuigan, Leitch and Kavanagh (2015) stated that the utilization of digital technologies can help students to acquire requisite skills and competencies such as goal-setting; team work; self-independent, self-assessment; digital and self-management skills needed for gainful employment or self-employment upon graduation. This supports the earlier assertion of Dabbagh and Kitsantas (2012) who acknowledged that social software technologies can enhance students' self-regulated learning. Golonka, Bowles, Frank, Richardson and Freynik (2014) on the other hand reported that ICT offers great pedagogical potentials to cater for learners and provides a significant learning space for self-regulated learning.

The utilization of social software technologies by students are gaining grounds in general courses such as mass communication, nursing, architecture and engineering, however, it seems that these technologies are not being adequately utilized by business education students to self-regulate their learning. In support, Watty et al. (2015) revealed that business education has been slow to embrace digital technologies. Similarly, in Nigeria, some students of tertiary institutions (business education students inclusive) are believed to be utilizing social software technologies for pursuit of academic goals; however, it appears that many are not fully acquainted with these technologies. In support, Adebowale (2013) regretted that students have their web 2.0 social software technologies such as Facebook, Whatsapp, Instagram e-mails and instant messaging, constantly running in the background while they are carrying out their academic engagements. These create distractions and reduce the quality of their studying time. Long (2012) reported that though earlier studies have demonstrated that social software technologies are widely embraced by the younger generation (students), the exposure and use of these



technologies tend to have negative implications on the students. This is as a result of more time being dedicated to the use of social software technologies for non-academic usage and less time to academic usage by students.

In line with the issue of usage of social software technologies in academic activities, Kitsantas and Dabbagh (2011) acknowledged that empirical research in university students' utilization of social software technologies for promoting self-regulated learning was still very limited. Margaryan, Littlejohn and Vojt (2011) stated that a number of studies that analyzed the presence of technologies in the university students' learning processes revealed that digital technologies are utilized, but self-regulated learning are not pursued with the use of digital technologies. Lai and Gu (2011) on the other hand found that students have limited knowledge regarding the use of digital technology for self-regulated learning. Supporting these findings, Yot-Domínguez and Marcelo (2017) reported that university students do not incorporate digital technologies into their own academic learning process. Yot-Domínguez and Marcelo further revealed that students make limited use of digital technologies for self-regulated learning. Sahin-Kizil and Savran (2016) however noted that EFL learners were actively engaged in the use of ICT tools for self-regulated language learning, but there were variations both among the students and in aspects of regulating learning through the use of ICT tools.

The extent of utilization of digital technologies for self-regulated learning could depend on gender of the users. This implies that the gender of business education students could significantly influence the extent students are utilize social software technologies for enhancing self-regulated learning. In support, Sahin-Kizil and Savran (2016) revealed that there was a difference between male and female students' use of ICT tools for self-regulated language learning, and the difference was statistically significant. Similarly, Nwaukwa et al. (2018) reported that gender was a significant factor on the extent business education students utilizes e-portfolios for academic learning. This supports the earlier finding of Adeshina, Udoh, Ndomi and Aliyu (2012) which showed that males utilize digital technologies for academic learning more than their female counterparts. It is against this backdrop that this study was carried out to ascertain the extent of utilization of social software technologies for enhancing self-regulated learning by business education students in Anambra State.



Statement of the Problem

The major purpose of business education at tertiary education levels is to produce skillful and dynamic graduates capable of competing in the job market or become successful entrepreneurs. To meet this objective, business education needs to adapt and embrace digital technologies. The popularity of these technologies among students has increased educational stakeholders' expectation to see these technologies used for academic learning (Vin-Mbah, 2016). In recent years, educational stakeholders have held high hopes for the utilization of digital technologies to improve the quality of learning. With the emergence of digital technologies, numerous social software technologies *are* available for students to utilize in enhancing their self-regulated learning. However, the researchers are worried that business education students seem not to be harnessing these enormous educational potentials of social software technologies as they prefer using them for non-academic purposes and less time to academic usage. Their non utilization of these technologies seems to have affected their academic achievement in ICT related courses. Similarly, there seem to be scarce empirical studies in Anambra State on the extent of utilization of social software technologies for enhancing self-regulated learning by business education students in universities. This gap in literature necessitated the study.

Research Questions

The following research questions guided the study?

1. To what extent are social software technologies utilized for enhancing self-regulated learning by business education students in universities in Anambra State?
2. What self-regulated learning strategies are developed by business education students using social software technologies?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. Male and female business education students do not differ significantly in their mean ratings on the extent of utilization of social software technologies for enhancing self-regulated learning in Anambra State.
2. There is no significant difference in the mean ratings of male and female business education students on the extent they develop self-regulated learning strategies using social software in Anambra State.



Method

The descriptive survey research design was adopted for the study. The study was carried out in two public universities that offer business education in Anambra State. The population of the study consisted of 150 (48 male and 102 female) 2018/2019 academic session final year business education students of Nnamdi Azikiwe university, Awka and Chukwuemeka Odumegwu Ojukwu University, Igbariam. The population comprised 145 final year business education students from Nnamdi Azikiwe University, Awka and 5 final year business education students from Chukwuemeka Odumegwu Ojukwu University, Igbariam. The population was manageable therefore there was no sampling. Questionnaire developed based on insight from literature reviewed was used to collect data from respondents. The instrument on cluster B₁ was structured on a five point rating scale of Very Highly Utilized (VHU), Highly Utilized (HU) Moderately Utilized (MU), Lowly Utilized (LU) and Not Utilized (NU) While that of B₂ was structured on four point rating scale of Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD).

The instrument was validated by three experts in the field of Business Education and Measurement and Evaluation Unit. The Cronbach Alpha coefficient for the clusters B₁ and B₂ yielded correlation co-efficient values of 0.88 and 0.81 respectively with an overall value of 0.85 which was considered reliable in line with the recommendation of coefficient of 0.70 or above is an acceptable reliability value. The researchers personally distributed copies of the questionnaires to the participants in their classes. On-the-spot method of administration and collection of questionnaire was used. Out of the 150 copies of questionnaire distributed, 146 copies were correctly filled and returned giving a return rate of 0.97 percent.

Statistical mean and standard deviation were used to analyze the research questions and determine the homogeneity or otherwise of respondents' views while t-test was used to test the null hypotheses at 0.05 level of significant. In testing the null hypothesis, when p-value was greater than the significant value, the null hypothesis was accepted otherwise, the null hypothesis was rejected. The analysis was performed using SPSS version 23.0.

Results

Research Question 1

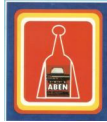
To what extent are social software technologies utilized for enhancing self-regulated learning by business education students in universities in Anambra State?



Table 1: Respondents' mean ratings and standard deviation on the extent social software technologies are utilized for enhancing self-regulated learning (N =146)

S/N	Social Software Technologies	X	SD	Remarks
1	Whatsapp	4.50	0.61	Very Highly Utilized
2	Twitter	2.28	1.02	Lowly Utilized
3	Facebook	4.57	1.05	Very Highly Utilized
4	LinkedIn	1.45	0.17	Not Utilized
5	Skype	1.49	0.82	Not Utilized
6	Line	1.44	1.09	Not Utilized
7	Google Talk	3.34	0.75	Moderately Utilized
8	Slideshare	1.43	0.17	Not Utilized
9	Instagram	2.38	0.96	Lowly Utilized
10	Pinterest	1.64	0.34	Not Utilized
11	Youtube	1.44	0.56	Not Utilized
12	Calameo	1.34	0.92	Not Utilized
13	iTunes	2.49	0.82	Lowly Utilized
14	ExamTime	1.47	1.09	Not Utilized
15	Google +	2.59	0.97	Moderately Utilized
16	wikis & blogs	1.87	0.75	Lowly Utilized
17	cloud	1.40	0.80	Not Utilized
18	Dropbox	1.43	0.62	Not Utilized
19	Delicious	1.47	1.08	Not Utilized
20	specific apps like Whiteboard Lite and EverNote)	1.45	0.93	Not Utilized
21	podcast	1.48	0.87	Not Utilized
22	video	2.68	0.91	Moderately Utilized
23	Wikipedia or online	4.54	0.73	Very Highly Utilized
24	dictionaries	4.65	0.52	Very Highly Utilized
25	translators	1.42	0.72	Not Utilized
26	Google academic	4.12	0.71	Highly Utilized
27	Dialnet	1.29	1.11	Not Utilized
28	MindManager	1.38	0.52	Not Utilized
29	RefWorks	1.26	0.87	Not Utilized
30	Mendeley	1.28	1.53	Not Utilized

Data in Table 1 shows that out of 30 social software technologies listed, items 1, 3, 23 and 24 with mean scores ranged between 4.50 and 4.65 are very highly utilized by business education students for enhancing self-regulated learning. Item 26 is highly utilized, items 7, 15 and 22 with mean scores ranged between 2.59 and 2.68 are moderately utilized, items 2, 9, 13 and 16 with mean scores ranged between 1.87 and 2.49 lowly utilized while the remaining 18 items are not utilized for enhancing their self-regulated learning. The analysis shows that responses to items 27 and 30 have



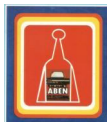
the highest deviation (1.11 and 1.53) among the respondents, this suggests that the respondents are quite divided in their opinions as to the extent they utilize Dialnet and Mendeley for enhancing self-regulated learning. Other items show homogeneity in the respondents' responses.

Research Question 2

What self-regulated learning strategies are developed by business education students using social software technologies?

Table 2: Respondents' mean ratings and standard deviation on self-regulated learning strategies developed using social software technologies (N = 146)

S/N	Goal-setting/Planning Strategy	X	SD	Remarks
1	I use Google Calendar, EverNote to manage my academic activities	1.43	0.64	Strongly Disagreed
2	I use Whiteboard Lite to set sub-goals for my next stage of learning.	1.39	0.61	Strongly Disagreed
3	I use MindManager tool to plan relevant materials to do outside of the school	1.29	0.79	Strongly Disagreed
4	I use Google academic to record learning information to be used for exam revision	2.46	0.78	Disagreed
5	I use blog/wiki to reflect on your own learning experience	2.47	0.73	Disagreed
Self-monitoring Strategy				
6	I record my own content-related podcasts to use them when I'm studying.	1.49	.79	Strongly Disagreed
7	I record the teacher's presentations with my mobile device	1.54	.94	Disagreed
8	When studying, I listen to content-related podcasts found on iTunes, iVoox	1.44	.67	Strongly Disagreed
9	When preparing a presentation, a practical Exam, I record myself using a handheld device.	1.45	.95	Strongly Disagreed
10	I use podcast, videos to effectively monitor myself to achieve the learning goals at each stage	1.47	.82	Strongly Disagreed
Personal Management Strategy				
11	I use programmes such as Google Calendar, EverNote... to handle my academic activity agenda.	2.53	0.52	Disagreed
12	I download content-related material through my institution's repository of learning objects (RODAS, RiUMA, etc.) or from open learning resource libraries such as Universia.	2.42	0.45	Disagreed

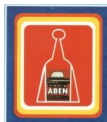


13	I use Really Simple Syndication (RSS) feeds to receive updated information about topics I am interested in.	1.51	1.01	Disagreed
14	I use specific apps (such as scientific calculator Kaljulilo, Whiteboard Lite to solve problems and exercises included in the subjects.	1.82	1.23	Disagreed
Self-evaluation Strategy				
15	I look for content-related, self-evaluation exercises online and I use them to prepare for exams	2.49	0.91	Disagreed
16	I create online exam samples (ExamTime, Google Forms) and I share them with my classmates when preparing exams	1.67	0.57	Disagreed
17	I use podcast, and video to Listen to the previously recorded lesson	1.37	0.81	Strongly disagreed
18	I use podcast and video to Listen to the previously recorded lessons	2.36	0.76	Disagreed
19	I use blog/wiki to reflect on your own learning experience	2.47	0.73	Disagreed

Data in Table 2 shows four self-regulated leaning strategies (goal-setting/planning, self-monitoring, personal management and self-evaluation) business education students are expected to develop using social software technologies. The Table discloses that out of the 19 items listed according to each strategies, business education students rated 8 items “strongly disagreed” while the remaining 9 items are rated “disagreed”. This indicates that business education students are not utilizing social software technologies in developing their goal-setting/planning, self-monitoring, personal management and self-evaluation strategies.

Discussion

Findings of the study revealed that business education students do not utilize majority of social software technologies available to them in enhancing their self-regulated learning. The findings showed that Whatsapp, Facebook, Wikipedia and online dictionaries are the most utilized by the respondents. This finding agrees with that of Yot-Domínguez and Marcelo (2017) who found that Whatsapp and Facebook are digital technologies that students generally want to use in enhancing their academic learning. Mirriahi and Alonzo (2015) reported that the type of digital technologies that students utilized for enhancing learning has remained unchanged over the years. This supports the earlier findings of Khodabandelou (2013) that Facebook is the most popularly utilized social software technology for academic



purposes. In support, Eke-Okpala and Omekwu (2014) disclosed that the extent to which students of tertiary institutions utilized Facebook and Whatsapp for academic purposes was high when compared to Twitter which was very lowly utilized.

The fact that business education students rated their utilization of social software technologies as “lowly utilized or not utilized” could be as a result of not being aware of majority of the technologies or lack of adequate knowledge of how to utilize them for enhancing self-regulated learning. Business education students may not be adopting self-regulated strategies which could also affect their general attitude towards utilizing these technologies for enhancing their self-regulated learning. In agreement, Watty et al. (2015) revealed that social software technologies have not been extensively adopted by students of business education programmes to a great extent. Adebowale (2013) also revealed that students prefer utilizing digital technologies for non-academic purposes more than enhancing their academic learning. This supports the earlier findings of Oliver (2009) that new technologies have not been extensively utilized in the education system in Nigeria when compared to other fields such as management and engineering. Furthermore, Littlejohn, Margaryan and Vojt (2010) disclosed that university students are not inclined to utilizing digital technologies when self-regulating their learning process, even when they are regular users of digital technologies for social, personal and leisure activities, among others. In part, this is explained by their limited view that technologies have in learning.

The findings of the study disclosed that business education students are not utilizing social software technologies to develop their goal-setting/planning, self-monitoring, personal management and self-evaluation strategies. The findings of this study could be linked to the findings of Sebesta and Speth (2017), and Moeller, Theiler and Wu (2012), who revealed that majority of higher institution students, have limited knowledge of self-regulated learning strategies. This limited knowledge on how to self-regulate learning coupled with the fact that many university students prefer to utilize social software technologies for non-academic purposes rather than for enhancing learning could be the reason why they have a relatively less positive attitude towards utilizing social software technologies to develop their self-regulated learning strategies. The findings could also be attributed to business education lecturers not teaching students self-regulated learning strategies or encouraging students to utilize social software technologies to develop self-regulated learning strategies. In support, Authors (2015) asserted that if students do not use digital



technologies to regulate their own learning, it is because teachers neither require nor encourage their use. It becomes apparent that if students (business education students inclusive) do not use digital technologies to regulate their own learning, it is because teachers neither require nor encourage their use. Nwana (2012) reported that teachers' poor skills of digital technology application in instructional delivery constrain students' utilization of new technologies in enhancing their learning.

Conclusion

Today's students represent the first generations to grow up with digital technologies. They are being called “digital natives” because they have spent their entire lives surrounded by and using computers, email, the Internet, cell phones, instant messaging, video games, digital music players, video cams, cell phones, and all the other electronic tools of the digital age. It is now clear that as a result of this ubiquitous environment and the sheer volume of their interaction with it, today's students *think and process information fundamentally differently* from their predecessors. As a result, they are expected to be utilizing social software technologies with greater ease for enhancing their self-regulated learning. However, the findings of this study showed that in spite of the obvious potentials of social software technologies in stimulate students' active involvement in their learning process, and the development of their innate scientific, critical-thinking and self-regulatory learning abilities, business education students in universities in Anambra State are not utilizing these social softwares for developing their self-regulated learning strategies. Based on these findings, the researchers concluded that there is still need for more training and monitoring of business education students on how to utilize social software technologies for enhancing self-regulated learning in universities in Anambra State.

Recommendations

The following recommendations are made:

1. Seminars and workshops should be organized by Business Education Departments in universities to enlighten students on how to effectively utilize social software technologies to self-regulate their learning which will help to improve their and academic performance.
2. Business education lecturers should lead by example by utilizing social software technologies to self-regulate their own learning and for assessment of their students. This will enlighten the students to their benefits in education



and therefore, stimulate their interest in utilizing these social softwares for enhancing self-regulated learning.

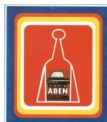
3. Business education lecturers should incorporate social software technologies in instructional delivery. This is because their students must learn to use these technologies that workers use in professional careers. Failing to do so will widen already existing gap between industry and university education.
4. Business education Lecturers should create learning environments that favour independent and self-regulated learning, in which students have opportunities to seek challenges, to reflect on their progress, and to take responsibility and pride in their accomplishments.
5. Business education lecturers should adopted instructional strategies that can improve academic self-regulation. They should but present instructional models that promote self-regulated learning using social software technologies as support.

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