Developing Student Autonomy through the Enhancement of Technological Approaches

Alim Asanov*

Department of Global Education, Westminster International University in Tashkent, Uzbekistan.

*Correspondence: aasanov@wiut.uz (Alim Asanov, Lecturer, School of Law, Technology and Education, Department of Global Education, Westminster International University in Tashkent, Uzbekistan).

ABSTRACT

The concept of “learner autonomy” (LA) infatuates the interest of researchers across different dimensions of science and technology. In the previous century, the initial associations with the term springing to one’s mind were to do with self-access technology-rich centres, commonly known as “resource centres”; however, with its rapid global penetration, it reached the contexts of developing countries, thus introducing change to how the learners can become better versions of themselves. The aim of this study is to report on the effectiveness of the consequent introduction of a wide range of e-tools studied and experimented with minor teacher intervention. The study is limited to a scope of 24-25 CIFS students studying at Westminster International University in Tashkent (henceforth WIUT) aged between the ages of 17 and 20. The group will be randomly divided into two samples: experimental and control. Supposedly, there will be 12 students in each of the two sample groups.

Keywords: Effective autonomous learning, Developing student, e-learning tool, and Academic English module.

INTRODUCTION:

The concept of “learner autonomy” (LA) infatuates the interest of researchers across different dimensions of science and technology. In the previous century, the initial associations with the term springing to one’s mind were to do with self-access technology-rich centres, commonly known as “resource centres”; however, with its rapid global penetration, it reached the contexts of developing countries, thus introducing change to how the learners can become better versions of themselves (Smith et al., 2018, p8). However, due to not being inherent and its complex individual hierarchy (Dickinson, 1992 cited in Hu, 2014, p435), developing LA is not a matter of a few random techniques, but rather a painstakingly planned approach (Gholami, 2016, p50). The notion of LA, coined by Henry Holec, first came to light in the early 1980s and initially implied an ability of learners to be in charge of their own learning (Holec, 1981, p3 cited in Hu, 2014, p435). The multi-dimensional formulations of autonomous learning depend on the study area and geography and could be explained by its initiating dynamic, but the closest and most crucial to the nature of the current research definition characterizes an autonomous learner as a vigorous participant actively interpreting new data from the perspective of his/her frame of reference within the social milieu where learning happens (Dam, 1990, cited in Ceylan, 2015, p86). The focus of study is the English language classroom where being autonomous determines the degree of a learner’s success. To this effect, the proposed study will intensify the understanding of LA for it intends to explore it within the framework of modern technologies utilized by educators to facilitate content cover-
age of various disciplines. In the sphere of Language Education, despite the omnipresence of holistic overview and multifaceted Ness, this field is under-studied and rather promising for research.

**Statement of purpose**
The main purpose of this study is to investigate the effect that the enhancement of learning through technologies has on developing students’ autonomy in Academic English writing.

**Research question(s)**
The prospective study will address this matter by exploring the following RQs -

**Main question**
1) How can the enhancement of technological approaches develop student autonomy in learning Academic English?

**Sub-questions**
1) What e-learning tools developing student autonomy are mostly preferred among students?
2) How much teacher intervention is needed to maintain effective autonomous learning?

**Research objectives**
The following objectives have been established for the intended study:

1) To apply various e-learning tools in order to establish if they contribute to developing autonomy in learning to write in Academic English
2) To experiment with various e-learning tools so as to discover the most efficient ones for autonomous learning.
3) To evaluate if teacher intervention in students’ autonomous learning upholds effective autonomous learning in students.

**Scope of the study**
Whilst autonomy and technology as concepts are not novice and have been extensively documented in the framework of versatile scientific contexts, they have been scarcely studied as far as the effect the former and the latter may have on the improvement of writing skills among the international university students enrolled on a first year of study. The aim of this study is to report on the effectiveness of the consequent introduction of a wide range of e-tools studied and experimented with minor teacher intervention. The study is limited to a scope of 24-25 CIFS students studying at Westminster International University in Tashkent (henceforth WIUT) aged between the ages of 17 and 20. The group will be randomly divided into two samples: experimental and control. Supposedly, there will be 12 students in each of the two sample groups. So the experiment will be conducted on 12 students while in-class conditions and instructions for both groups will be exactly the same. Because the experiment will last for 10 weeks and it aims to look into the notion of autonomy, all assignments the students will be expected to work on are going to be carried out in their free off-class time. Communication with the research participant will, to a large extent, be taking place via WIUT Learning Board, rarely via Telegram group, university email accounts and face-to-face. To this end, all members of the experiment group will be added to the WIUT Learning Management System (LMS) in “My Classes” folder from which further communication and learning will take place. The idea of student active engagement in their autonomous learning lies in encouraging them to experiment with any convenient e-learning tool or a set approximately 15 tools from the suggested list borrowed from the research findings of (Benosa, 2015; Ghufron and Nuradianingsih, 2019, p983; Dhillon and Murray, 2021, p10). The whole range of tools they applied in their studies is enumerated and analyzed in the literature review section. However, their learning is not expected to be entirely autonomous, but rather semi-autonomous. To extrapolate, the students will be able to get familiarized with each suggested tool as recommended by Cole and Vanderplank, (2016, p33), I, as an instructor, will scaffold their motivation by preparing a brief description and general instructions about their usage to each e-learning tool. With prior reference to the Teaching Calendar, they will be aware of the topic of the upcoming seminar so that to explore it more insightfully prior to attending the class using a tool (or a few of them) by their choice, in the meantime, as social cognitivists would put it, fostering assimilation. After each seminar, they should write a brief reflection (50-100 words) about their experience (of getting to know about the tool, learning a new seminar-related concept, performing in class and deducing a takeaway) and upload it in the Discussion entering their private folder accessible by the others. The students should feel encouraged to read at least two
reflection logs (preferably circulating them) and provide brief comments by the end of each week. As for my role as a teacher, all reflection summaries should be commented upon to ensure the students’ dynamic work is appreciated, guided and evaluated. All this organization and monitoring is essential because failure of any representative to comply with the set conditions may affect the final results; therefore, in order to preclude this from happening, non-compliant members may have to be excluded from the study.

Literature review
Learning autonomy is a widely-discussed topic in educational circles and the abundant availability of technological underpinnings makes this capacity even more attractive to research from multiple angles. The thematically-built literature review that follows aims to ascertain the value from various sources through analysis and critical evaluation.

Benefits of learning English autonomously
One of the indicators of a successful reform in teaching is developing students’ ability to learn autonomously, whereby they can devise methods typical of their best potential (Li, 2015, p435). Since autonomy kindles learners’ perseverance and dedication to materialize aspirations, it plays a pivotal role in learning an L2 (Bravo et al., 2017, p101). The two main affective factors, motivation and confidence, significantly strengthen when students opt for in- and interdependence in learning (Hu, 2014, pp13-17). What’s more, with the help of English majors, which are high in perception levels, learners can be prepared for one of the top life skills of the current century, viz. ability to perform tasks independently (Tran and Vo, 2019).

As regard particular skills, learning vocabulary autonomously helps students to memorize a greater number of lexical units within a short span of time (Janitra, 2020, p13); especially, among those doing so from frequent exposure to television wherein a comprehensive range of vocabulary is at the learners’ disposal (Kusyk and Sockett, 2012, p11). Through increasingly sophisticated practice, which is scaffolded by motivation to obtain knowledge from the sources, predominantly created by experts, autonomous learners gradually, but surely become experts themselves (Cole and Vanderplank, 2016, p33; Cada, 2021).

Factors hampering autonomous learning in students
There can be many factors precluding the students’ becoming self-reliant from academic perspectives, but a substantial body of evidence places emphasis on several most egregious ones. One aspect is a dissonance, especially in the developing world, between what many learners covet to acquire and what, in fact, the formal education has to offer (Smith et al., 2018, p11) since there are still many educational establishments limited to a mere “chalk and talk” pedagogies postponing autonomous self-expression (p14). Moreover, excessive bureaucratic control from teachers’ side could seriously undermine the lure for independence in learning (Gao, p45). Teachers’ involuntary intrusion in their students’ autonomy can also lie within their uncertainty about the extent to which the instructions executed in class are effectiveness as well as their dearth of expertise and constraints in relevance of applied materials and assessment instruments (Little, 2009, p244). Unsupportive atmosphere both within the household and in the classroom sets out to be another reason why students fail to maintain learning concentration (Agustina and Fajar, 2018, p154). Other external constraints to LA in language acquisition are severe institutional constraints (examinations, curriculum, rules and regulations) and language teaching methodologies (Benson, 2000, p114). Likewise Borg, (2011) identified institutional and teaching factors, but also added learner ones, mainly paucity of motivation among learners for independent learning (p222).

Impact of technology on autonomous learning
A comparison between more and less autonomously engaged learners using digital tools shows that the former can better individualize them and monitor the progress they make in language development (Dincer, 2020, p62). Other research findings show that the access to various applications and videos on multimedia devices during out-of-class time is the most preferred way to acquire skills in English (Rahayu, 2020, p55). Research into in-class experience demonstrates that such technological advancements as computers, projectors, software, 3D tools, PPPs, etc., enhance teaching and learning making both more interesting and interactive (Rajaand Nagasubramani, 2018, p34). Various e-learning resources for learning foreign languages
autonomously, such as e-credit books, electronic library systems, e-learning resources and versatile educational platforms make students’ experience more efficient and exciting (Chikileva, 2019, p477). Besides, while letting students select individual activities in learners’ “personal learning environment” (PLE), such platforms are designed to develop students’ time management and ability to control pace of learning (p480).

Technology helps learners build their knowledge through round-the-clock access to various web tools, materials, interfaces and remotely collaborates with their peers (Agustina and Fajar, 2018, pp155-56; Raja and Nagasubramani, 2018, p 34; Aminatun and Oktaviani, 2019, p216). Encouraging students to independently explore new knowledge via technology enriches their schemata and enables them to support in-class discussion with their teacher and groupmates (Francis and Flanigan, 2012). Nevertheless, ICT may have a negative effect accelerated by divides in the digital sphere, meaning that because of the costs, those financially-challenged learners can be deprived of what the technology has to offer; moreover, the learners can shift from the subject content to technology aspect, thus succumbing to distractive marketing ploys (Israel, 2014, p156). Other authors reveal lack of focus, poor concentration and decline in writing skills as the most vulnerable aspects the students can undermine (Raja and Nagasubramani, 2018, p 35).

**Foundation and strategies applied by autonomous learners**

LA is not a personal quality or a ready-made product as it is mistakenly deemed. One can lay the foundation for autonomous learning only when an amalgam of conditions (cognitive and metacognitive strategies, attitudes, motivation and knowledge about efficient mechanisms of learning a language) is created (Nunan, 1997). In fostering LA, successful students apply a greater repertoire of learning strategies on a constant basis, thus strengthening metacognitive thinking, the main concepts of which are awareness, planning and goal setting, and monitoring (Chamot, 1998, p14; Hu, 2014, p22). Earlier a cluster of six main factors, viz., the role of teacher and feedback, learners' independence and confidence in studying, experience of learning foreign languages and chosen approach chosen to study, was elicited to determine whether or not students are prepared for learning autonomously (Cotterall, 1995, p197). In the view of Saricoban, (2012), reading strategies applied metacognitively cultivate reading autonomy; he distinguished 12 sub-strategies (i.e. reviewing and connecting the studied materials, paying/directed/selected attention, determining goals, finding opportunities to practice, self-management and evaluation) that might be applied to develop not only reading autonomy, but also other study skills (p50). As such, the implementation of various technological approaches at each separate stage is highly feasible. However, without an autonomous teacher, fostering LA can be vitiated (Johnson et al., 1990; Thanasoulas, 2009, p7). Teacher autonomy presupposes cognitive and affective aspects since teachers’ prior mission is not about inculcating LA, but also teaching students how to overcome feelings of fear, low self-respect and debacles in attempting to gain independence (Gabryš-Barker, 2017, p176). This, oftentimes, implies rethinking the expository mode of teaching roles (no talking means no teaching) and becoming the educational resources counsellor instead of being the information purveyor (Little, 1991, pp44-45).

**Teaching strategies promoting technological approaches**

A master teacher is flexible to adapting to students’ concurrent instructional needs and sufficiently exploits technology to detect and amend their errors and misconceptions (Ostankowicz-Bazan, 2016, p3). A Japanese researcher predicts that the influence of technology will gain momentum and most educational establishments will “adopt bring-your-own-device policies" and will expect their teachers to be tech-literate to make proper use of these devices (Lavolette, 2022, p1). Concurrently, the University of Helsinki Language Centre is actively engaged in Autonomous Learning Modules (ALMs) where the students accomplish the required writing studies component as part of curriculum (Karlsson and Dradley, 2020, p142). In seeking to transform conventional classrooms and augment students’ comprehension of the core concept via blogs, websites, e-books and videos, a flipped method of teaching is commonly integrated these days (Bensad, 2015; Ghufron and Nurdianingsih, 2019, p983). Other studies revealed that the most effective way to
inculcate LA is to vary the spectrum of e-learning collaborative and corpus linguistic technology tools.

Among the most preferred ones are videos (TED, YouTube), Virtual Learning Environment (Edmondo, Blackboard, MOODLE), plagiarism software (Viper, Turnitin), tools for feedback writing (Kaizena, MS Word Track Changes), collaboration (Padlet, Dropbox, GoogleDocs), referencing tools, quizzes, interactive whiteboard and social media (Dhillon and Murray, 2021, p10). Most explored literature suggests that students are unlikely to gain complete autonomy without motivation, auspicious external conditions and teachers’ thorough curriculum planning, support and moderate guidance. To ensure learners delve into realizing the importance of, establishing and honing their autonomy through an effective application of e-learning technology, a “digital immigrant” teacher should be motivated to keep pace with technological advancements, their versatility and applicability (Dhillon and Murray, 2021, p2). There is, nevertheless, relatively insufficient research investigating how enhancing the use of e-learning technology in the Academic English module can make students more autonomous and thus better as well as more independent writers. Moreover, no findings were revealed about LA in academic writing and the use of e-technologies to foster autonomy at a foundation university level in the context of Uzbekistan, therefore, addressing these gaps may render valuable results.

**METHODOLOGY:**

**Research Design**

Having made assumptions about the sort of data needed, in my future study, I have decided to implement the Experiment Research or Hypothesis-testing method. According to Trochim and Donnelly, (2006, p191), experimental design is the most rigorous of all research designs and when properly executed becomes the “golden standard” because other designs, due to its strongest internal validity, are judged against it. At this stage, I would not be targeting any golden standards, but as suggested by Hammond and Wellington, (2021), obtaining useful data in the context of technological effects on LA and comparison between groups might suggest, rather than prove, what the actual impact is (p86). Since this design can fall into four different types, True experimental, Quasi-experimental, Pre-experimental and Ex post facto (Walliman, 2022, pp148-149), following a thorough familiarization with this classification, I decided that only the former one corresponds to what indeed my research pursues to undertake, thus hypothesizing causal relationship between variables. The main reason why I intend to go with the True experiment design is that it will allow me to make a careful random selection of the hypotheses I am going to test. Next, this method gives room for comparing outcomes gained from control and experimental groups. What’s more, the groups can be tested to determine their properties before the experiment is conducted. It also allows for the variables to be closely monitored and neutralized. Finally, the gathered data can prospectively become the foundation for making generalizations. However, the only way I can determine whether technologies have an effect on LA is to do a controlled experiment. For this reason, I should first of all identify my variables elicited from the main research question:

**Independent Variable:** Use of technology

**Dependent Variable:** Becoming more autonomous as a learner.

Although these determine the main thrust of my study, they are still not specific enough in relation to the main variables to be studied and the study population. I cannot establish how autonomous a student is until I decide what constitutes the LA and how it can be determined; similarly, I cannot measure whether the technological approach is indeed strengthened if I have not instituted and circumscribed what particular e-tools, pieces of equipment or software are common to equate. Thereby, in my study, I set forth to clearly define them not to cause any confusion and ambiguity. This will be done through establishing working/operational definitions. For construct validity, a researcher should operationalize terminology within a semantic net (Trochim and Donnelly, 2006, p71). Operational definitions here are necessary in case some other researcher decides to replicate the study to see whether the same results can be obtained.

**Description of the study area**

Educational domain is immensely broad and stratified. This ushers in diverse topics for scientific exploration. However, with the penetration of technology in education, the latter “... has gone from passive and re-
active to interactive and aggressive” (Raja and Naga-subramani, 2018, p34). This proposal focuses on the topical issue of technological approaches in developing LA at a higher education level. Technology has both advantaged and disadvantaged educators, but cumulative evidence convincingly suggests that its future is inextricably linked to it like any other sphere of the digital era. Studying the effects that technology brings in education is the dictate of time because it has allowed learners to acquire knowledge in ways they never did before (Harris et al., 2016, p370). Prima facie the achievements in the study area bode well, but learning more about the residual effects that technology tools have on learners’ growing more independent in their academic endeavors is of the hitherto concern.

**Sample, sample size and sampling technique**

In this study, I will focus on any one of the four CIFS (Certificate of International Foundation Studies) groups where I teach an Academic English module. The total student population expected to do the course in the academic year 2022-23 is about 1,500 students. Each group consists of an average of 25 students. In fact, I will be experimenting with approximately 2% of the total CIFS population. The students in the group will have many common characteristics, such as age and interests, therefore, as stated by Johnson and Christensen, (2016), the more homogeneous a population is, the smaller the studied sample size can be (p270). Moreover, as the researchers recommend in the table adapted from Krejecic and Morgan, (1970), the size of population of 25 (N) should engage 24 (n) sample members (p271). Intend to shun any sort of bias, and consequently have the results of my study generalized to a larger population; therefore, non-probability sampling methods are beyond any consideration. Because the study aims to find out the causal relationship between the variables, they need to be separated into two separate sub-groups: experimental and control ones.

The former group will be exposed to the independent variable, i.e. technology use while the latter, control group, with which the former will be compared, will not be exposed to any treatment or intervention and will be taught in a regular manner. The students will be divided into the sub-groups through random assign-

1) It is very common when conducting experimental research.

2) It is inexpensive; considering the fact that I will be collecting the responses at the university by asking students to scan the QR-code redirecting
to the questionnaire itself, it will involve no personal expenses.

3) The questionnaire will be filled out by the respondents in a group situation; so, I will manage the data collection setting and ensure every-one has completed it; as such, it is expected that there will be a high response rate.

4) It is quick and will take 10 minutes maximum.

The same questionnaire (see Appendix A) will be applied to both experimental and control samples at the time the semester commences (Teaching Week 3) and upon its completion (Teaching Week 12) with the interval of 10 weeks. The offered questionnaire, which is still tentative and subject to undergo further polishing, has been mainly constructed from two basic sources and numerous arguments and findings synthesized in the literature review part of the current proposal. The total of 61 questions retrieving students’ self-perception, performance, attitudes, personality and aptitudes have been grouped to delineate the concept and degree to which the LA is developed as of the survey time. These predominantly reflect the amalgam of students’ independence in writing, some general study skills and interaction modes with peers and teachers as well as their ability to utilize technology for self-directed learning. The reason why I intend to gather data from both the experiment and control groups using the same questionnaire is to see the extent to which the experiment group will become more autonomous.

**Data analysis and presentation/Expected findings**

The nature of the data analysis correlated the study design. Per this intended study, I considered Experiment Research or Hypothesis-testing design. Consequently, to determine statistical relationships among the variables, the Hypothesis-testing method will be applied. The quantitative, hard statistical data, will be analyzed inferentially. To clarify, “inferential statistics… [uses] … the laws of probability to make inferences and draw statistical conclusions about populations based on sample data” (Johnson and Christensen, 2016, p530). In my study, I intend to identify the cause and effect relationship between the enhanced use of technology (mainly, e-learning collaborative tools) and becoming more independent as a learner in academic writing. I have observed that technology-literate students are better organized in their learning and perform better as writers. This study will correspondingly determine whether the relation (my assumptions) that I predict among the variables truly exists. This prompts the following Verbal Null and Alternative hypotheses deduced through a top-down approach in reasoning.

- **H₀** Applying technological approaches have no effect on developing LA in learning Academic English writing.
- **H₁** The enhancement of technological approaches develops LA in learning Academic English writing.
- **H₀** Experimenting with various e-learning tools cannot help students recognize which ones are best for their autonomous learning.
- **H₂** Varied use of e-tools helps students recognize the most effective one(s) for their own learning and thus becoming more independent.
- **H₀** No teacher intervention in LA should be in place.
- **H₃** Moderate teacher monitoring and guidance throughout a semester contributes to effective autonomous learning in students.

All three “alternative” hypotheses, which are based on my prediction since I personally support them (Trochim and Donnelly, 2006, p9), will be tested directly and relying on the conviction that hypothesis testing operates under the conjecture that the null hypothesis is true, to find out whether they are true indeed NHST (null hypothesis significance testing) should be applied (Johnson and Christensen, 2016, p540). As regard the presentation, I assume that that the major part of the obtained data, I will show in the tabulated format. According to Ellison, (2010) this is only advised when the data from a small group of respondents is to be reviewed and illustrated in a tabular form (p64). Since I will be dealing with a relatively small sample, this undertaking seems to be rather feasible. The expectation of their being due to gain a more proficient skill set relies on the fact that both sample groups will be taught a regular pre-planned class aiming at nurturing their autonomy through various strategies, technical included, but as the RQ goes, the experimental group will be actively “enhancing” their independent learning using versatile technological means in the off-class periods. This extracurricular 10-week engagement in
strengthening the LA via technologies is sure to illustrate different results not only from the initial questionnaire, but also from those of the control sample proving my main hypothesis claiming that technological approaches develop LA in learning Academic English writing. Other expected results will show that experimenting with a broad spectrum of e-learning tools, the experimental sample representatives will develop their own preferences ensuring the most fool-proof efficiency in learning. The other anticipated outcomes will prove that moderate guidance and monitoring by the instructor is essential before the learner becomes fully-independent and throughout a semester contributes to effective autonomous learning in students. As Jiménez and Flávia, (2020) view it, the teachers’ role should be strengthened and expanded while the work they do ought not to be treated as the process ‘pro-duce’ learning but rather as the process ‘facilitating’ it” (p23).

Benefits/limitations/reflections
I expect the outcomes of the proposed study to provide inputs to the existing body of knowledge about the most effective technological tools helping students at tertiary level to improve their writing abilities within the scope of their own, enhanced potential to obtain relevant information. Since the study will be free of my bias, be based on random samples of ample size and have the confounding impact of various variables eliminated, there could be a strong likelihood of the study findings to be generalized and further replicated on other (sub) populations across the country and beyond involving larger numbers of participants. The result of the intended research may have positive repercussions on the syllabus and assessment design of the AE course of other disciplines involving academic writing. At the meantime, the proposed research procedure may overlook some essential undertakings which are due to be identified, traced and eliminated prior to the actual research process. For the time being, a few limitations may obfuscate the alleged study.

Firstly, direct application to specific local circumstances and individuals might be impeded due to the too general or conceptual knowledge to be produced. Secondly, instead of generating the hypothesis, there might be some confirmation bias resulted from the inclination to disprove the null hypotheses while testing the alternative ones. Finally, with the study demanding from experimental sample participants some extended participation, there exists a risk of “attrition bias” (Miller and Hollist, 2007, p57; Kandel, 2020, p49) that may seriously confine the generalizability of the prospective results.

CONCLUSION:
Extensive examination of the topic has been carried out which resulted in discovering what merits autonomy heralds and what factors can debilitate it in learning. It has been revealed how technology and the idea of LA are connected and what strategies both learners and instructors should apply to foster a self-directed approach in the process of knowledge acquisition. Therefore, the main focus of this proposal is to set for further examination the effect that the enhancement of learning through technologies can have on the development of students’ autonomy in Academic English writing. This research proposal embodies various operational steps described and justified for further specialist consideration. The process of writing the current piece has been challenging as well as enjoyable. In retrospect, the entire endeavor required good theoretical and intermediary knowledge, some blanks within which lagged the progress of writing. This suggests that further progress and intensive familiarization with the vast theoretical background should create a solid and balanced foundation for the forthcoming thesis writing.

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CONFLICTS OF INTEREST:
The author declares no conflicts of interest.

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