

Changes in Student Autonomy via E-Learning Courses

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Abstract—Nowadays, the concept of autonomy is becoming increasingly crucial in the area of instruction, especially when new challenges call into question the efficiency and sustainability of the higher education system. The aim of the research is to identify emerging attributes and dimensions of student autonomy via e-learning courses, which facilitate the quality improvement of modern higher education, meet the requirements of digitally based learning content, contribute to increasing learners' self-motivation, encourage their further individual and professional development and ultimately, promote long-life learning. The study was conducted among 75 master students enrolled in academically oriented and vocationally focused course “Foreign Language for Professional Activities” in 2020. Research has revealed changes in student's perception of autonomy; examined extent of their willingness to carry out complicated tasks with the limited instructor's guidance; determined the scope of responsibility of students to manage their own educational activity and track the progress; explored their initiative and persistence as well as detected the most frequent challenges students faced while completing the course.

Keywords—student autonomy, E-learning course, digital learning content, higher education, master students.

1 Introduction

Within the educational context, the autonomy issue has always remained on the agenda. No matter what teaching styles, approaches, methods or techniques are implemented in the course of instruction, be it task-based, guided-discovery or project-based learning; no matter what is the stage of education, from Education 1.0 to 4.0; no matter what learning format is implemented, classroom or virtual; student autonomy is an essential prerequisite for successful learning and efficient performance. If a student navigates properly in the educational space, manages his / her learning pace and time, being motivated and mature enough to reach excellence while performing tasks; then his / her autonomy greatly contributes to receiving a high quality education.

Daniel Pink, an American author, a co-executive producer of social science TV Channel, a chief White House speechwriter, once said “Control leads to compliance; autonomy leads to engagement” [1]. Though autonomy presupposes a certain degree of control, inner or outer one; nevertheless only by being sincerely interested and

consciously engaged in learning, a student can gain well-developed skills, knowledge, expertise and relevant experience. Besides, nowadays, when the pandemic has robustly affected all global institutions, especially education; autonomy turns out to be in great demand and is rapidly expanding its share in the educational environment. Digital learning space, namely, infinite number of MOOCs, learning management systems, electronic courses envisage a high degree of autonomy.

The present research considers a thorough analysis of survey data obtained from master students of “Foreign Language for Professional Activities” course. It summarizes how student autonomy has altered, what attributes and dimensions of autonomy have become significant for learners, what challenges in autonomy-related terms they have encountered while doing the course.

2 Review of the relevant literature

Henri Holec, a founder of the leading French institution, a guru in learner autonomy in language learning, actually invented this term and came up with the classical interpretation of a learner’s autonomy: people’s ability to take charge of their own learning [2]. This definition encompasses a whole range of denotative and connotative key concepts: an ability, responsibility, motivation, willingness, to name a few.

Leslie Dickinson, an expert on learner autonomy from Edinburgh, Scotland, approaches autonomy via such concepts as self-direction, individualized-instruction, and self-access instruction. These concepts are valid if the student feels responsibility for learning new things and himself / herself determining the scope of the distribution of this responsibility for different aspects of learning [3].

Hungarian researchers, Agota Scharle and Anita Szabo who published a sought-after guidebook to learner’s autonomy, emphasized that conscious, intentional motivation is a vital element of responsibility, which in turn contributes to autonomy enhancement [4].

Barbara Sinclair, a well-known expert on University education from Nottingham, specifies that the notion of autonomy incorporates learner’s willingness to assume overall responsibility for his / her own learning output. In addition, B. Sinclair outlined certain essential aspects of learner autonomy, which “appear to have been recognized and broadly accepted by the language teaching profession”. Autonomy presupposes:

- creation of potential, capacity;
- conscious awareness of the learning process, i.e. cognitive realization and decision-making;
- implementation both inside and outside the classroom;
- both social and individual dimension;
- unstable and variable degrees [5].

William Littlewood, an Honorary Professor for TESOL and Applied Linguistics Centre in Hong-Kong, engaged in language teaching methodology, recognized the concept of autonomy in three overlapping dimensions:

- autonomy as a communicator;
- autonomy as a learner;
- autonomy as a person.

Instructors primarily focus on promoting students' ability to use the language for communication in real, everyday situations; then train students to assume responsibility for their own learning and to develop personally meaningful strategies both inside and outside the classroom, and finally to sustain greater degree of autonomy as individuals. The desire to perform independent actions depends on the level of motivation and confidence of the student, while the ability to act independently presupposes the level of his / her knowledge and skills [6].

Terry Lamb, Professor of Languages and Interdisciplinary Pedagogy from University of Westminster, draws attention to such manifestation of autonomy as learner's awareness that implies both a skill and knowledge of how to study as well as the motivation to learn [7].

Simon Borg from UK University of Leeds and Saleh Al-Busaidi from Oman Sultan Qaboos University published a comprehensive study where they highlighted some abilities, which are viewed as indicators of learner autonomy:

- independence;
- cooperation;
- self-evaluation of own learning;
- identifying own weaknesses;
- monitoring own progress;
- recognizing own strengths;
- understanding own needs [8].

Australian researchers John Willison, Fizza Sabir & Judith Thomas developed the framework of learning and research stages with incorporated the following levels of autonomy:

- prescribed research (activity);
- bounded research (activity);
- scaffolded research (activity);
- open-ended research(activity);
- unbounded research (activity) [9].

Gökçe Dişlen, a Turkish researcher from Adana Science and Technology University placed special emphasis on presence of a teacher and his / her continuous guidance for proper student autonomy development. His lengthy exploration revealed heavy reliance on the teacher of both freshmen and senior students (no matter how they are digitally trained and how well they can work on their own) that is sometimes a bit underestimated by other instructors. Among the key roles assigned to the teacher in terms of developing student autonomy, Dişlen distinguishes scaffolding, motivating and providing sustained supervision [10].

Lilian Ya-Hui Chang and Michael Patrick Geary from Taiwan Universities, who deal with application of digital learning tools in tertiary education, indicate that the balance between individual student participation in out-of-class activities and a socially mediated interaction with a teacher and peer groups is a significant element promoting learners' autonomy [11].

Educators from the Mexican University Chuc Piña, Frank Farmer, and María Nucamendi note that autonomy is not a universal identical concept, which is equally interpreted elsewhere. What some individuals perceive as autonomy may be considered in a totally different way by others. It may depend not only upon culture, but also on various factors [12].

A group of Indonesian researchers who explore self-regulated learning issues point out that student autonomy contributes to proper monitoring and regulating their learning activity, if it is supported by high motivation and academic behavior in accordance with goals and contextual conditions [13].

Thus, we may identify the most significant attributes of autonomy, namely ability, responsibility, motivation, willingness, as they are recognized by many scholars.

The following research questions have been set:

- RQ1: How do students perceive learner autonomy on current Education 4 level?
- RQ2: What are the strengths and weaknesses of learner autonomy recognized by students under challenging current circumstances?
- RQ3: How to improve e-learning courses as tools of developing learner autonomy?

3 Methods and research

The findings of the research were obtained via the mixed-method research study [14] for triangulation and complementarity. We applied interviews and a questionnaire on the first stage of the research to identify the current level of autonomy and learner's expectations of possible autonomy improvement prior to the development of the e-course. In addition, we conducted a survey based on the learners' feedback on the concept and content of the course, and further the changes in their autonomy comprehension, via analysis of their opinions in the form of the questionnaire that comprised three basic Likert scale response items.

The research comprised several stages:

- stage 1 involved a survey of students in the form of an interview and a questionnaire, with the subsequent analysis of the data obtained;
- stage 2 entailed the integration of the obtained data into the content of the e-learning course and design of the course based on scaffolding;
- stage 3 consisted in supervising the work of students with the e-learning course, their feedback on the concept and content of the course, and the analysis of their opinions via a Likert scale.

3.1 Target audience

The research explores the autonomy level of master students in the process of completing the e-learning course for the academic discipline “Foreign Language for Professional Activities”. The study involved the participation of IT students on the sole basis of the university. It should be noted that this university is one of the leading universities in its country, rated in QS Engineering and Technology ranking as well as in THE Emerging Economies Ranking. Its numerous facilities also comprise the Institute of Open and Distance Education, university corporate learning management system Moodle, which can significantly increase the autonomy of students if they are willing to receive major or additional training via various mandatory or supplementary courses.

Nevertheless, irrespective of availability and affordability of so many academic opportunities, some students are not motivated and wishing enough to master their major, let alone being reluctant to join some extra courses.

The choice of IT students as the target audience for the present research is not random and turns out to be quite relevant as the “Foreign Language for Professional Activities” course, though not being their core academic discipline, still is pivotal for their professional development as much research in IT area is available only in English; accordingly, their learning is sufficiently based on autonomy that can be trained by the e-course.

The same 75 first-year master students (50 male and 25 female students at the age of 22-25 (average age 23.6) participated in all stages of the study in 2020.

Previously those students have had the experience of being taught by means of electronic English courses, but those courses were just supportive ones that contained extra data on grammar and vocabulary and were used in the conventional framework of blended learning.

3.2 Research

The present stage of education is referred to as Education 4.0 – accessible, digital, individual, practical flexible framework, creating opportunities for autonomous learning. To comply with Education 4.0 requirements, modern universities are to provide a multi-purpose, highly stimulating digital educational environment [15].

The survey questions were intended to reveal:

- how developed the student autonomy was while doing tasks (completing assignments on a fully independent basis; expecting subsequent answers and explanations from fellow students and waiting for the teacher’s regular support; being reluctant to learn on one’s own);
- how motivation of students changed while studying remotely;
- if the saved time previously spent on the way to the university and back and in classroom training was used for self-education.

The students were suggested to answer the following questionnaire questions:

- Do you work part-time besides your university studies?
- Is it easy for you to plan your free time within distance learning?
- Has the preparation time for distance learning changed?
- Have the number and scope of homework changed?
- What motivates you to complete assignments more conscientiously?
- What factors reduce your motivation?
- Do you feel the support of the teacher in distance learning?
- Is it important for you to feel the regular support of the teacher when you prepare for classes?
- When do you think a student has more free time to use creative ways while doing homework?
- How do you do your assignments more efficiently and creatively: working on your own or in a team/ pair with someone?
- If the assignment involves teamwork, how do you get involved in the process?
- What sources of information do you use when doing your homework?
- What types of distance learning do you use yourself?
- In the future, would you like to have remote tasks in addition to traditional training?

4 Findings

4.1 Stage 1

It should be emphasized that the students – survey participants – have been familiar with e-courses in various disciplines, however, these courses were not widely used on a regular basis and that time there was no compulsory transition to online education. The job-related question was deliberately introduced to the survey: students who are employed part-time have less free time and, accordingly, less time is available for study. Our research identified 60 (80%) working and 15 (20%) non-working students.

An online distance shift in teaching technology could cause a lack of willingness or even refusal to study, and might result in a significant decrease of working capacity if the working day is planned incorrectly, and, consequently, learning motivation will deteriorate.

- 50 (67%) students noted few troubles to manage free time in distance learning; but leisure tended to be much less, so they had to give up traditional ways to spend the time.
- 25 people (33%) reported about the total absence of free time.
- 54 people (72%) noted an increase in the preparation time for classes.
- for 21 people (28%) the time remained the same.
- 58 respondents (77%) associate the increase in time with an increase in the amount and volume of homework assignments.

Meanwhile, an increase in preparation time can lead to a loss of learning motivation. Motivation plays a huge role in developing student autonomy. An increased motivation gives rise to a better performance, stimulates additional independent search for information and fuels creativity. Respondents named the following factors that increase their motivation (Figure 1):

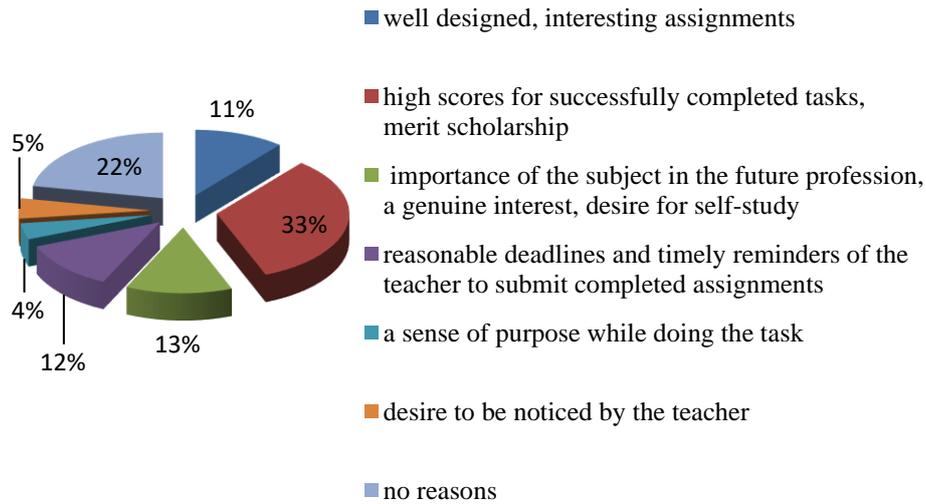


Fig. 1. Factors increasing learner’s motivation

“No reasons” response means that for 16 people (22%) motivation does not require additional incentives, since they are diligent, do everything properly and on time.

Among the main factors that reduce motivation, students noted the following (Figure 2):

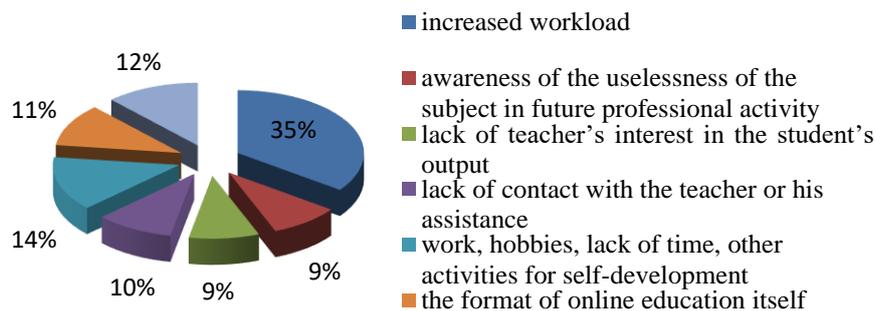


Fig. 2. Factors reducing learner’s motivation

In terms of teacher's support, vital to maintain student's motivation at a high level, it is accessible on a regular basis, but there can be certain delays.

- 34 people (45%) answered that they could ask a question and get an answer almost immediately;
- 18 people (24%) reported they had to wait for an answer, which usually takes several days;
- 20 people (27%) noted communication with the teacher took place only during online classes, and
- 3 people (4%) said the teacher did not answer outside the classroom.

At the same time, for 53 respondents (71%) it is important to feel the constant support of fellow students and the teacher while preparing for classes. Creativity is essential for focused, autonomous student's work, whether he / she works in a team over a joint project or individually. Only 18 people (24%) noted that the student had more free time to creatively do homework by completing tasks remotely (23 people (31%) – with traditional classroom teaching and 34 people (45%) – with blended learning).

A small number suggested that to develop the autonomy and creativity of students in distance learning, it was necessary to develop such exercises that would arouse interest and contribute to an increase in motivation and, as a result, autonomy in learning. 41 students (55%) prefer to work in pairs or groups in order to complete assignments more efficiently and creatively. 34 students (45%) achieve the best results working alone. This suggests that such students do not have developed soft skills of teamwork; perhaps the student cannot delegate some of the responsibility to the team members or does not trust them, preferring to do everything by himself.

However, there are many projects that involve teamwork. While doing homework, 56 people (75%) use additional sources of information (if necessary) apart from those recommended by the teacher; 7 people (9%) use only sources recommended by the teacher; 12 people (16%) search for information solely on their own. This suggests that most students are content only with the recommended literature and resources, if there is enough information, and there is no need for going beyond the discipline and its in-depth study.

In terms of self-education

- 22 people (29%) out of the entire sample, regularly visited educational sites, joined programs and courses, having desire to learn something new;
- 8 people (11%) registered for the online course and just participated there from time to time;
- 4 people (5%) enrolled in the online course and planned to receive a certificate;
- 41 people (55%) answered that they did nothing, they already had enough lessons.

The analysis of the survey data showed that when creating an e-course, the following points should be taken into account:

- tasks should not be too large and time-consuming to complete;
- assignments should be creative, interesting and varied in form and content to keep students motivated at a high level;

- tasks must be obviously feasible; if enough effort is made, they can be completed with a high score;
- tasks should be both individual and group-based;
- assignments should contain useful information related to future profession.

4.2 Stage 2

Having taken into consideration above-mentioned student feedback and the proposed strategies, the teachers of the “Foreign Languages Department” developed an e-course at a very short notice aimed at supporting the autonomous work of students. This course was intended for increasing students’ autonomy while performing various kinds of tasks without the constant support of the teacher. This course was piloted in the 2nd semester of the 2020 academic year in order to identify the advantages and also disadvantages for their further elimination in the next academic year.

As it has been stated above, the course is academically oriented and vocationally focused. The first semester content is centered around academic skills: how to search and analyze data, present information, write an IMRAD article. The second semester deals with ESP content. So, the e-course was designed to cover professional issues. At the first stage of the course development, the topics of the sections were determined, taking into account the future profession of the respondents and the results of the needs analysis conducted:

- Unit 1. Big Data.
- Unit 2. Supercomputing.
- Unit 3. Cyber security.
- Unit 4. Cloud computing.
- Unit 5. Artificial Intelligence.
- Unit 6. Industry 4.0.

It should be taken into consideration that while selecting the module units for the course the teacher should avoid inconsistency stemmed from contradiction between the seemingly correct order of structure and inadequate structural parts themselves [16].

The course objective is to supply students with relevant professional vocabulary; develop the skill to properly practice terminology in speech and professional discourse; strengthen aptitude for teamwork; improve such soft skills as cooperation, expressing and exchanging opinions, negotiating. The course also trains discussion skills, ability to speak about advantages and disadvantages; gives basics of organization of information in the form of report, teaches how to handle such information; informs about the construction of mental maps.

As the course is based on ESP – a subset of English that implies studying major via foreign language – scaffolding is obviously required to assist a learner. This term refers to a variety of instructional techniques aimed at moving students progressively toward stronger understanding and, ultimately, autonomy in learning process. Such teacher’s support can be realized in various forms, e.g., recommendations, simula-

tions, scenarios, mental maps, block diagram forms, key or leading questions (“Socratic Talk”), case studies or team-building activities, etc. As soon as the student reaches the objective, the teacher gradually removes the support. So as a result the student “learns to learn”, gaining skills of autonomous productive creative activity, he / she may need later in life. The focus of the method is on the learner and is both self-paced and paced by instruction [17]. In the proposed course, scaffolding was provided in the form of regular scheduled online teaching sessions, “Socratic Talk” communication via MOODLE forums before and after every unit.

Let us consider the structure of the module / topic (which is identical for all units).

Essential self-study materials (Lead-in, Active vocabulary). The topic begins with Lead-in section, which enhances the mental activity of students. The student is asked to answer several questions based on a given topic in order to identify his existing knowledge in this area. If this knowledge is not enough, he needs to refer to additional sources of information by choice. Sample questions: – What do you know about AI? Where is it used? – What are the benefits and risks of AI? – How can AI be dangerous? Each topic is supplied with has a core vocabulary (Active vocabulary) necessary to master the topic successfully.

Active vocabulary (tests). Various tests are proposed for training active vocabulary:

- Match the word combinations with their definitions.
- Form the verbs of the same root.
- Match the synonyms.
- Fill in the blanks in the text using words and word combinations from the box.

Time to read (texts and tasks to them). To form reading skills, students are offered different texts and assignments to them:

- Skim the texts and summarize the main ideas in 5-6 sentences.
- Match the paragraphs with headings.
- Read the definitions and formulate your own.
- Scan the text and complete the table using the information from the text and the Internet.
- Answer the questions after the text.
- Read the text and express your opinion about the topic discussed in it.
- Read the text and fill in the gaps with the correct parts.
- Look at the report and describe what the company has discovered.

Time to watch (a link to the video on YouTube and tasks after watching). Students are invited to watch the video and complete the assignments for it. Watch the video and:

- choose the correct answer for each question;
- answer the questions;
- complete the summary;
- fill in the gaps with the correct words from the box;

- write an essay on the topic that follows;
- complete the table.

The above sections are found in all topics. Since this course is electronic, it does not contain a large number of individual written assignments of essay types, which are quite time consuming and large in volume. Among the available tasks, the following can be noted: “Using the terminology you’ve learned so far, try your hand at writing a brief description of which might explain it to the teacher and other learners”.

The course also contains creative assignments that increase student motivation, require in-depth knowledge, stimulate independent search for information on the Internet or other alternative sources:

- Make up a 5-minute report on one of the technologies, which are in demand while using Big Data.
- Make up a 5-minute report on one of the fields for using supercomputers.
- Think of examples of parallelism in everyday life, where many hands make light work. Provide 3 - 4 examples.
- Compile a list, using the template, of the different types of information you store on your computer or online.
- Look through the features of Cloud Computing and decide whether they are benefits or challenges and try to explain why you think so.
- Discuss the necessity of using cloud computing in university. Take the roles of professor, student representative, member of administration, and head of finance department.
- Come up with the mind map about the artificial intelligence.

Taking into account that this discipline takes only two contact hours a week, the course includes one large group (3-4 people in a group) project work for the topic “Smart City”. Work over the project summarizes knowledge of the course topics, the use of additional materials suggested by the teacher, and independent search for materials on the Internet. The task is proposed in the following form:

Make up a project of a smart city. Decide on the:

- Objectives;
- Challenges;
- Technologies used;
- Budget and investments;
- Solutions for city utilities, transportation, power system, city construction, etc.
- Think of the benefits the smart cities have compared to the traditional ones. Consider the following aspects:
 - Benefits for the citizens and tourists.
 - Benefits for business and economy.
 - Benefits for ecology and the environment.
- Use the information from the unit, attached texts and the Internet.

4.3 Stage 3

After completing the course, students were suggested to share their commentaries, opinions and ideas of the course. In general, students positively assessed the proposed course: they referred to it as moderately difficult, sufficiently informative and unquestionably useful.

To measure and analyze learners' opinions properly, a Likert scale was used. This scale proves to be an efficient tool, where the satisfaction degree ranges from one extreme attitude to another. Students were encouraged to respond to some basic groups of questions. The results are described in Table 1.

Table 1. Results of students' opinions on completing the e-course on a Likert Scale between 1 (not at all) and 5 (very)

Questions	AVG	SD
How informative / useful was the proposed course for you?	4.51	0.64
How do the proposed course issues correlate to your major, future job?	4.91	0.29
How difficult was the process of completing the proposed course for you?	2.23	0.72
How strict were the deadlines of the proposed course?	1.80	0.73
How much the teacher's support did you need while performing the tasks of the proposed course?	1.88	1.17

Respondents pointed to relevant and challenging topics useful to them in terms of not only acquiring basics of future profession, but also widening the scope of their general knowledge. Speaking about informativeness and usefulness of the course, students noted that it was:

- very informative and useful (point 5 was given) – 44 people (59%);
- informative and useful (point 4 was given) – 25 people (33%);
- quite informative and useful (point 3 was given) – 6 people (8%).

When compiling the course, the topics were purposefully chosen, with the focus on further professional activities. It is obvious that the field of IT is very vast and there are infinite aspects to be dwelt on. However, the majority of students (68 people (point 5 was given) – 91%, of which 60 people are employed) are confident that the course is directly related to their future professional activities, 7 people (point 4 was given) – (9%) noted that the course is "quite consistent" with the future profession.

Students emphasized the general comprehensibility of the course, i.e. how simply and clearly the material was presented; how complex concepts were simplified and described avoiding uncertainties. The course was:

- quite difficult (point 3 was given) – for 30 people (40%).
- quite easy (point 2 was given) – for 32 people (43%);
- easy to complete (point 1 was given) – for 13 people (17%).

The respondents noted the variety of relevant academic and professional course issues and highlighted the significance of diverse assignments that covered key con-

cepts in the form of different tests. This test framework was definitely a good solution, since, firstly, it helped to systematize and brush up on gained professional knowledge, and secondly, provided immediate assessment compared to previous students' experience when teacher's answers and commentaries were delayed, students had to wait for responses, besides, such tasks were time consuming.

As for the format of the assignments, then

- 68 (91%) respondents favored tasks in the test form,
- 7 (9%) people were rather negative towards tests. Also,
- 43 respondents (57%) emphasized comprehensibility and simplicity of assignments in the test form compared to essays and reports, though they understood that latter ones were necessary for research activity (13 people – 17%).
- For the rest (19 people – 25%), all assignments were rather simple if they were correctly formulated.

Besides, the test form was quite significant for students, as it required less time to complete the task.

As noted above, non-test form assignments – presentations, reports, project work – i.e. creative tasks were viewed as rather complicated. With regard to the question whether students tended to procrastinate and postpone submission of difficult assignments, 55 people (73%) answered positively, 20 (27%) – negatively. Consequently, according to the student feedback, the course focused mainly on test form tasks, though opened creative assignments were present too, but mainly in the end of every course unit as creative simulation tasks.

Deadlines are one of the challenges in autonomous work. The student should be motivated and ambitious enough to meet deadlines while completing course assignments. Speaking about deadlines of the proposed course,

- 3 people (4%) were embarrassed by tight deadlines (point 4 was given),
- 5 people (7%) were quite embarrassed (point 3 was given);
- 41 people (54%) were quite unembarrassed (point 2 was given);
- 26 people (35%) were not embarrassed at all (point 1 was given).

As for the teacher's support, it was not quite obvious: students ask their questions rather rarely during the autonomous work. The respondents answered the following way:

- 11 people (15%) needed the teacher's support (point 4 was given);
- 14 people (18%) needed it sometimes (point 3 was given);
- 5 people (7%) they didn't need the teacher's support in general (point 2 was given);
- 45 people (60%) didn't need it at all (point 1 was given).

Upon analysis, we can consider that while doing the course, students developed proactive autonomy that stimulates them to think ahead. The assignments were compiled by ascending difficulty and diminishing direct teacher's support. The proactive learner takes control, thinks ahead and takes responsibility for learning. Thus, reactive

autonomy, which is based on spontaneous, sometimes even involuntary engagement into learning, when the student goes with the flow, has transformed into more efficient proactive autonomy [18].

Autonomous completion of the course helped students to cultivate their both productive (speaking, writing) and receptive (listening, reading) skills and to raise awareness of their strong and weak points in the language acquisition process [19]; majority of students noted that they managed to improve their level of comprehension by numerous exercises for listening and reading. The e-learning tools also contributed to better development of writing skills via essays and reports.

But the research also made it evident that students engaged in autonomous learning activities preferred receptive skills related assignments (reading and listening), rather than tasks for developing productive skills (speaking and writing). In the classroom teachers steer students towards performing a variety of creative tasks where they can speak a lot, be it a prepared or impromptu speech or do some writing tasks. The teacher can immediately provide the feedback as well as the fellow students give the necessary response. Besides, public speaking helps students to raise their self-esteem, become more self-aware, especially for those of them who constantly seek for approval. While at home, doing the e-course, students tended to focus more on thorough comprehension, refine receptive skills via various reading and listening tasks. Many researchers, e.g. Chan [20] and Hyland [21], observed the same phenomenon in their studies.

Overall, students showed a positive attitude to multimodality in delivering online instruction (audio, video, online teacher's support) and online assessment types. Educators from Saudi Arabia support the same view in their research based on student satisfaction survey regarded online learning experience [22].

5 Conclusion

Modern learners, especially mature master students, who have already completed the previous bachelor's degree, are advanced digital citizens who are well aware how to navigate in digital space, evaluate the validity of digital sources of information, and apply the gained knowledge while dealing with personal and professional issues [23]. Emergence of a huge number of open educational resources (OER), massive open online courses (MOOC), implementation of digital learning management systems (LMS) for conventional blended learning, availability of many virtual educational resources, provided by domestic and foreign universities, free access to many digital scientific and research libraries resulted in the sharp increase of student autonomy.

The above-mentioned factors are external prerequisites for fostering learner's autonomy. In terms of internal elements that cultivate the quality of student autonomy are ability, responsibility, motivation and willingness. Obviously, a student should have his / her appropriate reasons for autonomous learning, based on his background, plans, objectives; which involves developing self-evaluation; training cognitive capacities, such as comparison, generalization, abstraction, analysis. Nevertheless, all the above-mentioned might be a bit erratic and chaotic if students suffer from both the

lack of an appropriate teacher's support and smartly designed educational content. The modular course structure and various assignments and self-study tests allow students to track their progress, make changes into an individual work plan and ultimately contribute to the formation and development of their learning and professional skills.

The research showed that if the e-course – as a major educational tool for promoting learner autonomy – is based on responses and proposals from students and supported by the regular smart teacher's assistance; then the student is able to make a great qualitative leap forward in his / her study.

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