INDIVIDUAL AND GROUP AUTONOMY IN DIFFERENTIATED ESP INSTRUCTION OF INFORMATION TECHNOLOGY STUDENTS

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This study was aimed to check the effectiveness of links between individual and group autonomy of information technology (IT) students who studied ESP at university with the use of differentiated tasks. The mixed type of research was used. The study was held in 2020-2021 academic year and involved 40 IT students of the Physics and Technology Department of National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". For the purpose of the study we used a three-degree individual autonomy model involving the partial autonomy, semi-autonomy and conditionally full autonomy degrees, and a two-degree group autonomy including the minimum and relatively maximum degrees. Both models were based on the criteria of motivation; goal, content and procedure; control and reflection. The significantly and insignificantly effective links between individual and group autonomy of IT students in differentiated ESP instruction were identified. The relatively maximum degree of group autonomy combined with individual semi-autonomy of IT students, as well as the relatively maximum degree of group autonomy combined with conditionally full individual autonomy of IT students were found significantly effective. In contrast, the combinations of the minimum degree of group autonomy with partial individual autonomy of IT students, as well as the minimum degree of group autonomy with conditionally full individual autonomy of IT students were found insignificantly effective. It was concluded that the promotion of the individual and group autonomy in differentiated ESP instruction should be based on individual characteristics of students.

Keywords: differentiated ESP instruction; individual autonomy; group autonomy; IT students.

Introduction

With the fast progress of globalization and the growth of information technologies (IT), there is a need for enhancing the quality of IT students' education at university level with focus on their professional skills. Additionally, the knowledge of a foreign language will help them to solve any problem through communication at the workplace. Effective developing foreign language communicative competence of IT students should be based on the differentiated English for Specific Purposes (ESP) instruction oriented on the students' level of English language proficiency, their learning style and their individual and group autonomy.

ESP differentiation is a phenomenon that allows ESP teachers to arrange the educational process flexibly and proactively and help ESP learners with different foreign language proficiency levels and abilities "to achieve maximum growth" (Tomlinson, 1999, p. 14). Usually, a mixed-ability ESP class is composed of learners whose learning style and level of English language proficiency are different (Synekop, 2018). In view of this, it is reasonable to gradually increase the level of complexity of tasks in "the zone of proximal development" (Vygotsky, 1935). Simultaneously, the level of complexity of tasks should be as feasible as possible for both the learner and the group with the aim of supporting the developmental function of teaching and learning (Zankov, 1968, p. 34). "The zone of proximal development" (Vygotsky, 1935) is provided by the ESP educators and learner interaction and in this case, the individual and group autonomy of ESP learners play a crucial role in achieving educational aims.

A complex concept of autonomy is defined as "constantly changing and fluctuating depending on the activity being pursued, the way it is being pursued and the amount of guidance or supervision from the teacher or advisor, from peers and from the technology or the materials being used, whether learning is in a classroom context, using self-access resources or at a distance" (Everhard, 2015, p. 12).

A whole number of recent publications are devoted to the autonomy of foreign language learners and possibilities of its use in the educational process: developing learner autonomy via blended learning (Nikolaeva, Zadorozhna, Datskiv, 2019); the correlation between choosing a personal educational pathway and developing learner autonomy (Tuchina et al., 2020); fostering learner autonomy by using Google education tools (Borova et al., 2021); tools for developing learner autonomy (Stanojević Gocić, Janković, 2021); the impact of language learner autonomy (Little, 2020); effects of individual versus group work on learner autonomy (Liu, Ming-Chi, Huang, Yueh-Min, Xu, Yo-Hsin, 2018); learner autonomy as an educational goal of teaching English (Teng, 2019); the use of individual and collaborative learning logs and

their impact on the development of learner autonomy (Judy Shih, 2020); students' autonomy and attitude in learning TOEFL online (Octaberlina, Muslimin, 2021).

A number of studies have explored the degrees of individual autonomy (Winch, 2002; Scharle, Szabo, 2005; Nunan, 1997; Kohonen, 2001; Littlewood, 1996, 1997; Van Lier, 1996). Kumaravadivelu (2003) points out that the degree of autonomy does not correlate with the students' level of foreign language proficiency and "teachers and learners can follow different stages of autonomy depending on the linguistic and communicative demands of a particular task in a particular class" (p. 144). The degrees of autonomy depend on "the disposition and predisposition of the learners in terms of affect, motivation, commitment, engagement, interaction, cooperativeness, ownership, reflection and uptake, and fluctuates according to circumstances" (Everhard-Theophilidou, 2012, p. 51).

With the increased attention to the effectiveness of group and teamwork, the importance of understanding of the essence of group autonomy has also grown in different fields of knowledge. The terms "group autonomy" or "group work autonomy" (Bailey, Adiga, 1997; Blumberg, 1980; Cordery, Mueller, Smith, 1991; Langfred, 2000), "group learner autonomy" (Ponton, 2020); "team autonomy" (Thomas, Tymon, 1993; Kirkman, Rosen, 1999) appeared in studies on the features of the group / teamwork in companies. "Collaborative autonomy" is mentioned in the context of cooperative and collaborative learning (Myskow et al., 2018), "social autonomy" (Palfreyman, 2018), foreign language learning.

Langfred (2000) singled out the low and high degrees of the group autonomy and argued that "autonomy can simultaneously reside at both the group and the individual level in a work group" (p. 564). He argues that "a group may have considerable discretion in deciding what group tasks to perform and how to carry them out, but individual members within the group may have very little discretion or control" (Langfred, 2000, p. 564). Alternatively, the group members may have high individual autonomy but low group autonomy (Langfred, 2000, p. 564). In support of this point of view, we believe it is important to make further research into both individual and group autonomy and the influence of both autonomies on group / team work.

"Autonomous work groups are defined as groups of interdependent workers, who regulate much of their own task behaviour around relatively whole tasks" (Van Mierlo et al., 2001, c. 292). Similar definition is suggested by Cohen and Ledford (1994) who determine a self-managing team as a group of interdependent team members that can self-regulate their behaviour performing a single task which involves group autonomy, but does not exclude individual autonomy. Consequently, the group autonomy in differentiated ESP instruction can be considered as the readiness and ability of interdependent team members to self-regulate professional communication to achieve a common goal at both the group and the individual levels.

Thus, it is urgent to explore the synchronous effects of individual and group autonomy of IT students in the differentiated ESP instruction.

The **aim** of this study is:
1) to define the degrees of individual and group autonomy and the links between these degrees in the differentiated ESP instruction;
2) to outline the factors of development of individual and group autonomy of IT students.

Methods

Research design

In this study, the mixed research method was used. The qualitative research method was used for analyzing the degrees of individual and group autonomy in the differentiated ESP instruction, interpreting data during the experimental learning. Quantitative research method was employed for determining the effective links between the degrees of individual and group autonomy in the differentiated ESP instruction.

Research participants

The participants of the study were 40 students of the Physical and Technical Department of the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" who voluntarily took part in the study in 2020-2021 academic year.

Research instruments and procedures

The research consisted of six stages.

The first stage. Initially, IT students were offered a pre-test for defining their English language proficiency level according to Common European Framework of Reference for Languages: Learning, Teaching and Assessment / CEFR (2018). The test involved tasks on listening, reading, speaking and writing assessed by 10 points each. The maximum score for the test was 40. Points 35-40 indicated C1 (Advanced)

level, points 29-34 – B2 (Upper Intermediate) level, points 23-28 – B1 (Intermediate) level, points 17-22 – A2 (Pre-Intermediate) level, points 1-16 – A1 (Elementary) level.

Speaking was also assessed using CEFR (2001, 2018) levels: 1-2 points were given for Elementary level (speech is marked by very frequent hesitation; response on the whole is not adequate to the task; ideas are limited; pronunciation is not easily understood; vocabulary and grammar are limited; numerous mistakes are evident; interaction is very limited); 3-4 points – for Pre-Intermediate level (speech is marked by very frequent hesitation; response is occasionally adequate to the task; ideas are not well connected; frequently, pronunciation cannot not be easily understood; vocabulary and grammar are occasionally appropriate and varied; frequent mistakes are evident; interaction is occasionally appropriate); 5-6 points – for Intermediate level (speech is fluent, with a little hesitation; response is not always adequate to the task; ideas are partly limited; pronunciation is not always clear; vocabulary and grammar are appropriate and varied on most occasions; occasional mistakes are evident; interaction is not always appropriate); 7-8 points – for Upper Intermediate (speech is fluent, without much hesitation; response is mostly adequate to the task; ideas are almost always developed; pronunciation is almost always clear; vocabulary and grammar are generally appropriate and varied; few mistakes are evident; interaction is almost always appropriate); 9-10 points – for Advanced level (speech is fluent, without hesitation; response is adequate to the task; ideas are well developed; pronunciation is clear; vocabulary and grammar are appropriate and varied; very few or no mistakes are evident; interaction is appropriate).

Correspondingly, written assessment involved 1-2 points for Elementary level (the purpose of the text is generally unclear; ideas are limited; the organization of the text is poor; vocabulary and grammar are limited; numerous mistakes are evident); 3-4 points for Pre-Intermediate level (the purpose of the text is not entirely clear; ideas are not well connected; the text is not well organized; vocabulary and grammar are occasionally appropriate and varied; frequent mistakes are evident); 5-6 points for Intermediate level (the purpose of the text is generally clear; ideas are partly limited; the text is reasonably well organized; vocabulary and grammar are appropriate and varied on most occasions; occasional mistakes are evident); 7-8 points for Upper Intermediate level (the purpose of the text is clear; ideas are almost always developed; most of the text is well organized; vocabulary and grammar are generally appropriate and varied; few mistakes are evident); 9-10 points for Advanced level (the purpose of the text is very clear; ideas are well developed; the text is well organized; vocabulary and grammar are appropriate and varied; very few or no mistakes are evident).

The second stage. At this stage for the purposes of the differentiation, *a three-degree individual autonomy model* as an adapted version of those presented in previous research (Stolk, Martello & Geddes, 2007; Everhard-Theophilidou, 2012; Zadorozhna, 2012) was outlined. The degrees, such as partial autonomy, semi-autonomy, conditionally full autonomy (Table 1) were characterized according to the following criteria: motivation; goal, content and procedure; control and reflection.

Table 1. *Adapted three-degree model of individual autonomy based on models of Stolk, Martello & Geddes (2007), Everhard-Theophilidou (2012), Zadorozhna (2012)*

Criteria / Degree	Motivation	Goal, content and procedure	Control and reflection
Partial autonomy	Mostly extrinsic motivation	The teacher defines the goals according to the student's level of English language proficiency and his / her learning style; envisages and plans the progress and pace of the task; coordinates the ways of its implementation, offers appropriate strategies, content, materials.	Hetero-assessment, strict management by the teacher, mechanical reflection are predominant.
Semi-autonomy	Balancing of extrinsic and intrinsic motivation	Both the student and the teacher define the goals according to the student's level of English language proficiency and his / her learning style; envisage and plan the progress and pace of the task, coordinate ways of its implementation, select appropriate strategies, content, materials.	Priority is given to combined types of assessment (peer assessment, hetero-assessment, self-assessment), relatively strict management by the teacher; pragmatic reflection.

Conditionally full autonomy	Mostly intrinsic motivation	The student sets goals according to his / her level of English language proficiency and learning style; forecasts and plans the progress and pace of the task, coordinates the ways of its implementation, uses appropriate strategies, content, materials.	Combined types of assessment, especially self-assessment, flexible management by the teacher, emancipatory reflection are preferred.

The *criterion of motivation* relies on the notion of "motivation" as a tool for the differentiated ESP instruction which activates speech activity and affects the success of its realization. Therefore, in case of *partial autonomy*, when the goals and algorithm of the task are determined by the teacher, there is a predominance of *extrinsic motivation*. In conditions of *semi-autonomy*, the cooperation of the student and the teacher, the ability to choose a task according to the level of language proficiency and learning style significantly stimulate the student's desire and interest in the task performance, which creates a balance of extrinsic and intrinsic motivation. When a student has *conditionally full autonomy* and therefore a maximum freedom of choice in the process of performing the task, *intrinsic motivation* dominates.

The goal, content and procedure criterion implies outlining the goals in accordance with the student's level of English language proficiency and his / her learning style; planning the progress of the task, coordinating the ways of task solution, choosing appropriate strategies, content and materials. Thus, the *partial autonomy* provides the maximum dependence of the student on the teacher in determining the goals, content and process of the task performance while the *semi-autonomy* allows for the teacher and the students' consolidation of efforts throughout all the stages (from goal setting to task realization) and *conditionally full autonomy* stipulates the student's independence in defining objectives and ways to achieve them under minimal guidance of the teacher.

According to *the criterion of control and reflection*, *the partial autonomy* involves strict management by the teacher, dominant hetero-assessment; *the semi-autonomy* relies on relatively strict management by the teacher, combined types of assessment (hetero-assessment, peer assessment, self-assessment) with the prevalence of hetero-assessment and peer assessment; *the conditionally full autonomy* involves optimally flexible management by the teacher, combined types of assessment (hetero-assessment, peer assessment, self-assessment) with the preference of self-assessment.

Since the differentiated ESP instruction is a cyclic process from goal setting to assessment, reflection plays a crucial role in it. Reflection sets the rhythm of the cyclic educational process, activating the focus on skills that need to be further improved. The theory of "knowledge-constitutive interests" (Habermas, 1972; Huttunen, 2003, p. 125-126) offers three levels of reflection (mechanical, pragmatic and emancipatory), which Everhard-Theophil (2012, p. 29-30, 62) uses in her four-degree model of student autonomy in foreign language learning. *Mechanical reflection* means that "the content of the message is taken as such, without paying attention to its relevance or links to personal experience" (Huttunen, 2003, 125-126). *Pragmatic reflection* is realized through leaner's "increased understanding of an issue during an action or as a result of it, but does not analyze it further or link it with wider experiences" (Huttunen, 2003, 125-126). In *emancipatory reflection*, "the learner gets new insights and new ways of looking at things while deliberately engaging in reflection. Connections are sought with one's own experiences, and there are reasons for action and for the outcome of action" (Huttunen, 2003, 125-126). These outlined degrees of reflection can be implemented in the three-degree individual autonomy model in the differentiated ESP instruction. Thus, the partial autonomy correlates with mechanical reflection, the semi-autonomy – with pragmatic reflection, the conditionally full autonomy – with emancipatory reflection.

Thus, it is obvious that the choice of individual autonomy will vary in both classroom and extracurricular time, depending on the learning goals of IT students, the realization of which is based on student's level of English language proficiency and learning style, their ability to self-regulation and motivation.

The third stage. Then, on the base of different studies (Pearson, 1992; Langfred, 2000; Pekruhl, 1994; Myskow et al., 2018), in the differentiated ESP instruction, a two-degree model of group autonomy of minimum and relatively maximum degrees was developed according to the criteria of motivation; goal, content and procedure; control and reflection.

Table 2.*Two-degree model of group autonomy in differentiated ESP instruction*

Criteria / Degree	Motivation	Goal, content and procedure	Interactivity	Control and reflection
Minimum degree of group autonomy	Group members demonstrate neutrality in their attitude, desire and interest in the task performance; extrinsic motivation.	The teacher determines the overall goal of the group and individual work of each student; plans the progress of the task; influences group decisions; outlines the individual (according to the language proficiency level and learning style) contribution of each student in the group; sets deadlines for the task; distributes and changes roles if necessary; develops the group strategy. The role of the teacher is maximum.	Limited interactivity of students in communicative situations (ability to request information, explain, find out somebody's point of view, make suggestions, agree and disagree, exchange ideas, criticize, avoid conflicts). Scaffolding is offered by the teacher.	Peer assessment under the control of the teacher is dominant. Group reflection (superficial and moderate reflection) is carried out within the group with the participation of the teacher.
Relatively maximum degree of group autonomy	Group members demonstrate a positive attitude, desire and interest in fulfilling the group's task; intrinsic motivation	Students determine the overall goal of the group and individual work of each student; plan the progress of the task; make group decisions; outline the individual contribution (according to the language proficiency level and learning style) of each student in the group; make changes if necessary; set deadlines for the task; distribute and change roles if necessary; develop the group strategy. The role of the teacher is minimal.	Optimally flexible interactivity of students in communicative situations (ability to request information, explain a point of view, make suggestions, agree and disagree, exchange ideas, criticize, avoid conflicts). Scaffolding is not offered by the teacher.	Group assessment and peer assessment are dominant. Group reflection (deep and moderate) within the group is carried out without the intervention of the teacher or with his / her minimal participation.

According to *the motivational criterion*, with a *minimum degree of group autonomy,* the group members demonstrate *extrinsic motivation* (neutrality in attitude, desire and interest) during the performance of the group task, whereas with a *relatively maximum level of group autonomy* they show the *intrinsic motivation* (a positive attitude, desire and interest) in the process of task performance.

In accordance with *the criterion of goal, content and procedure*, in conditions of *the minimum degree of group autonomy*, the role of the teacher is dominant. He / she determines the overall goal of the group and an individual in the group; plans the progress of the task; influences group decisions; outlines the individual contribution (according to the language proficiency level and learning style) of each student; sets deadlines for the task; distributes and changes roles if necessary; develops a group strategy. With *the relatively*

maximum degree of group autonomy, all these teacher's functions are transferred to the group of students and their role is maximum. At the same time, minimal teacher intervention (as a consultant) remains.

With reference to *the interactivity criterion, under* the *minimum degree of group autonomy*, the interactivity of students in a group (the ability to ask for information, explain, find out somebody's points of view, make suggestions, agree and disagree, exchange ideas, criticize, avoid conflicts) is limited in communicative situations. The teacher offers scaffolding as a support. At the same time, a *relatively maximum degree* of group autonomy supports optimally flexible interactivity of students in communicative situations.

According to *the control and reflection criterion*, *the minimum degree of group autonomy* relies on the combined types of assessment, predominantly peer assessment under the control of the teacher. Under *the relatively maximum degree* of group autonomy, the combined types of assessment are used, predominantly the group assessment and peer assessment.

This criterion involves specifics of reflection too. West and Sacramento (2010) highlight that reflection in teams or groups differs in depth. Thus, superficial reflection "consists of thinking about issues closely related to the task at hand" (West & Sacramento, 2010, p. 907). Moderate reflection "is characterized by a more critical approach toward tasks" (West & Sacramento, 2010, p. 907). Finally, deep reflection "involves rethinking the norms and values of the team or organization" (West & Sacramento, 2010, p. 907). Thus, under *the minimum degree of group autonomy*, groups do not always understand the goals and the ways to achieve them; mostly follow ready-made patterns and do not anticipate the consequences when analyzing the task, are unable to quickly adapt to changes in the communicative situation; use superficial and moderate reflection. With *the relatively maximum degree of group autonomy*, groups clearly understand the goals and strategies to achieve them, carefully plan communicative actions, anticipate possible consequences, analyze the communicative situation and make adjustments as needed during the task performance, quickly adapt to changes; realize deep and moderate reflection.

The fourth stage. The links between individual and group autonomy of IT students in differentiated ESP instruction were identified. Significantly effective were found the links between the relatively maximum degree of group autonomy and individual semi-autonomy of IT students, as well as the relatively maximum degree of group autonomy and conditionally full individual autonomy of IT students. Combinations of the minimum degree of group autonomy with the partial individual autonomy of IT students, as well as the minimum degree of group autonomy with the conditionally full individual autonomy of IT students were found to be insignificantly effective.

Table 3. *The links between the individual and group autonomy of IT students in differentiated ESP instruction*

Significantly effective links	
Relatively maximum degree of group autonomy Individual semi-autonomy of IT students	Relatively maximum degree of group autonomy Conditionally full individual autonomy of IT students
Insignificantly effective links	
Minimum degree of group autonomy Partial individual autonomy of IT students	Minimum degree of group autonomy Conditionally full individual autonomy of IT students

The fifth stage. At this stage, two groups consisting of subgroups with different levels of individual and group autonomy were formed and then different communicative tasks were suggested to them. The first group included: the subgroup with relatively maximum degree of group autonomy and semi-autonomy of students at the individual level; the subgroup with relatively maximum degree of group autonomy and conditionally full autonomy of students at the individual level. The second group included: the subgroup with minimum degree of group autonomy and partial autonomy of students at the individual level; the subgroup with minimum degree of group autonomy and conditionally full autonomy of students at the individual level.

The sixth stage. Then, a post-test for defining English language proficiency level was offered. The pre-test assessment criteria were used for assessing the post-test.

Data Analysis

The tests results were calculated automatically using the mathematical statistics method – Fisher's coefficient. The collected data was analyzed, compared and interpreted.

Results

The results of our study demonstrated that at the beginning of the experimental learning the level of foreign language proficiency in both experimental groups was almost the same. The Ukrainian students' desirable foreign language proficiency level is B1 (intermediate) at the entrance and B2 (upper-intermediate) at the graduation from a bachelor's degree program according to CEFR (2018). According to the results, ESP learners' language levels range from B1 to B2 with the majority having B1 level. In the first experimental group, there were 15 such students, in the second experimental group – 14 students (Table 4). Correspondingly, 5 students from the first group and 6 students from the second group reached level B2. After the experiment, the IT students of the first experimental group showed better results compared with those of the second one.

Table 4. *IT students' English language proficiency levels*

Number of IT students in experimental groups	Pre-test		Post-test	
English language proficiency levels	**B1**	**B2**	**B1**	**B2**
EG-1 (sub-group 1 and 2) 20 students	15	5	2	18
EG-2 (sub-group 3 and 4) 20 students	14	6	11	9

Then the Criterion of Fisher (2017) was used for identifying which groups showed more effective links between individual and group autonomy and correspondingly a higher level of English language proficiency.

The following hypotheses were formulated:

H_0: the percentage of IT students who have increased the level of English language proficiency in the first experimental group (EG-1) is not bigger than in the second experimental group (EG-2) as reported by the obtained results.

H_1: the percentage of IT students who have increased the level of English language proficiency in the first experimental group (EG-1) is bigger than in the second experimental group (EG-2) as reported by the obtained results.

The students who received 29-34 points (level B2) were considered to have gained an "effect" during the experimental learning, while the students who got 23-28 points (level B1) were regarded as those who did not achieve it.

To calculate the Fisher (2017) Criterion ($\varphi^*_{emp.} = (\varphi_1 - \varphi_2) \cdot \sqrt{\frac{n_1 \cdot n_2}{n_1 + n_2}}$, φ^*_{emp}, where $\varphi_1 = 18$ (90%), $\varphi_2 = 9$ (45%) (Table 5)) we used PSYCHOL-OK software (https://www.psychol-ok.ru/statistics/fisher/fisher_02.html) and got $\varphi^*_{emp.} = 3.248$, which is greater than 2.31 and thus is in the significance zone. This means that only hypothesis H_1 is correct. According to the obtained results, the percentage of IT students who increased the level of English language proficiency in the first experimental group was bigger than in the second experimental group.

Table 5.*The degree of effectiveness of learning outcomes in the experimental groups*

Experimental groups	Learning effect	No learning effect	Total
	Number of IT students (%)	**Number of IT students (%)**	
SPEAKING INTERACTION			
EG-1	18 (90%)	2 (10%)	20 (100%)
EG-2	9 (45%)	11 (55%)	20 (100%)

Discussion

We totally agree with the opinion of Ledford (1994) that it is reasonable to pay attention to the synchronous effects of individual and group autonomy in differentiated ESP instruction of IT students. Our

study made it possible to outline significantly and insignificantly effective links between individual and group autonomy. As the individual autonomy is integrated in the group autonomy of IT students, these types of autonomy are interconnected and interdependent.

Our research was based on Vygotsky's (1935) assumption that the individual autonomy is oriented on the student's ability to act independently and take responsibility in setting the goals and searching for the ways to achieve them in "the zone of proximal development". Such ability depends on the individual potential of each student: his / her learning style, the level of foreign language proficiency.

Unlike the individual autonomy, group autonomy focuses on determining the goals and the ways of achieving them at the level of the group. But, in our opinion, this type of autonomy is more complicated than the individual one, because a group is composed of different students who have various individual potential and are able to solve tasks at their own level and the level of the group. The group work in our study was organized in accordance with the current literature which states that autonomous groups imply: distributing tasks among group members, sharing responsibilities for a clearly defined segment of work (Jessup, 1990) and a common task of the group (Jönsson and Lank, 1985); performing tasks that require different skills relevant to group work (Wall, Clegg, 1981); providing feedback, which relies on controlling deviations from the goal (Pearson, 1992). An important feature of teamwork in our research was team reflection which we viewed as "the extent to which team members collectively reflect on the team's objectives, strategies, and processes …" (West & Sacramento, 2010, p. 907). As shown by the results of our study, the variation of the degree of group autonomy makes an impact on the coordination of group actions in defining the goals, content and process of the task performance; interaction, which ensures the effectiveness of communication and coordination of the group; control and reflection by the teacher and the students.

According to the experimental results, the link between the relatively maximum degree of group autonomy and the semi-autonomy of IT student, as well as the relatively maximum degree of group autonomy and the conditionally full autonomy of IT student was significantly effective. In contrast, the combinations of the minimum degree of group autonomy with partial autonomy of the student, as well as the minimum degree of group autonomy with conditionally full autonomy of the student were found ineffective because of insufficient coordination and cohesion of task performance.

The effective balance of individual and group autonomy is provided by such factors as individual potential of students (his / her level of English language proficiency and learning style); the level of complexity of tasks that should be as feasible as possible for both the individual learner and the group; sufficient background professional knowledge; distribution of roles within the group; proper choice of tasks; effective communication (sharing information, avoiding conflicts, finding consensus); clear definition of rules and procedures; frequent feedback; mutual trust and respect; team discipline; proper teacher guidance.

In addition, with the increase of socially distributed regulation and co-regulation of students in groups, the level of group autonomy increases. In the process of the differentiated ESP instruction the teacher's influence on the student decreases, and, correspondingly, the level of the individual and group autonomy increases. The promotion of the individual and group autonomy in differentiated ESP instruction should be based on individual potential of IT students. When organizing group work in differentiated ESP instruction of IT students, it is necessary to take into account different combinations of individual and group autonomy in classroom depending on the learning goals.

Limitations

The research was limited by Ukrainian students only (n=40). Thus, in our opinion, similar studies conducted in other countries and involving a bigger number of participants could receive new insights.

Conclusions

Based on the results of our research we may conclude that the links between the relatively maximum degree of group autonomy and the individual semi-autonomy of IT students, as also between the relatively maximum degree of group autonomy and the conditionally full individual autonomy of IT students are significantly effective. On the contrary, the links between the minimum degree of group autonomy and the partial individual autonomy of the students, as well as between the minimum degree of group autonomy and the conditionally full individual autonomy of the students are insignificantly effective. Also, the effective development of individual and group autonomy is provided by such factors as the individual potential of the students; the level of complexity of tasks; sufficient background professional knowledge of students; distribution of roles within the group; proper choice of tasks; effective communication; clear definition of rules and procedures; frequent feedback; mutual trust and respect; team discipline; appropriate teacher guidance. The use of different combinations of individual and group autonomy in classroom depends on the

learning goals and the promotion of the individual and group autonomy in differentiated ESP instruction should be based on individual potential of IT students.

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