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Overview of Psychological and Pedagogical Techniques Used to Facilitate First-Year Economics Student Adaptation

Alla Georgievna Dmitrieva*
Plekhanov Russian University of Economics, Stremyanny lane, 36, Moscow, 117997, Russia

Marina Gennadievna Fedotova
Plekhanov Russian University of Economics, Stremyanny lane, 36, Moscow, 117997, Russia

Kira Borisovna Prigozhina
Plekhanov Russian University of Economics, Stremyanny lane, 36, Moscow, 117997, Russia

Elena Valentinovna Stolyarova
Plekhanov Russian University of Economics, Stremyanny lane, 36, Moscow, 117997, Russia

Abstract
The article is dedicated to a multi-stage research focused on implementation of psycho-pedagogical approach contributing to positive and smooth adaptation of first-year students to university studies at the Foreign Language classes in a new study group. Factors providing such adaptation and integration are determined. Selected techniques aimed at development of intragroup relations and roles, as well as at stimulating educational and cognitive process are observed. Unstandardized interviews with the students of one study group who joined the research as participants on volunteer and anonymous basis, proved to be the best research tool at the initial stage of observation. Among the findings there are the vitality of trust-based relationships between students and a teacher, as well as teacher's concerns in students' academic achievements and soft skills. During the first academic year two more stages of the research were held. The first of which involved use of selected teaching methods and patterns facilitating personal integration of students into the group work. Namely, preparation and making solo and small-group presentations on various topics within the curriculum; intra- and inter-group conferences, contests and panel discussions on the selected topics. The final stage is dedicated to collecting the results of adaptation by two psychological techniques - Composite Roles and Group Cohesion Index. Among the results of the research we can emphasize the utmost importance of joint work with groupmates at curricular and extracurricular events, creating conditions stimulating all students work as a complete whole pursuing similar goals and sharing similar values- the activities permitting complete integration of student beginners to successful learning.

Keywords: Cognitive process; Adaptation; Social roles; Personality roles; Personal integration; Tertiary education; Group relationships.

1. Introduction

In 2016-2017, we conducted the first pilot psychological and educational research dedicated to investigating group roles of first-year students. We investigated development trends in a group as a whole, role distribution in a study group, dependence/independence on social and group standards, determination to defend one's opinion and ability to resolve conflicts in an amicable way. We also reviewed the group cohesion as a factor that influences group integrity and its performance indicators (Fedotova *et al.*, 2017).

The research findings resulted in conclusions made on the structure of a small study group, roles played by its individuals as well as planning of educational work to adapt first-year students to university studies in general and to foreign language lessons in particular.

In 2017-2018, the authors decided to undertake another multi-stage research with the focus on implementing various pedagogical types contributing to positive adaptation and integration of first-year students. Years of work experience, continuous proficiency enhancement, attending and participation in academic conferences, sharing best practices with colleagues, etc., enabled us to choose definite pedagogical techniques that allow reducing emotional stress level in the group and create the environment that contributes to positive adaptation of group members to university studies.

In January 2018, during "University of Tomorrow: Innovative Pedagogy and Methodology" conference hosted by Plekhanov Russian University of Economics we facilitated round-table talks and a workshop dedicated to psychological aspects relating to personality and social adaptation of first-year students in the university environment, as well to discussions on the teacher and student role and place in university present-day educational structure, their opportunities and challenges.

According to psychological dictionary, adaptation means "the adjustment process by which an organism or species becomes better suited to changing environment". "Adaptation" term appeared in XIX century in the

biological context, however with years its application was extended to other fields of knowledge (Berezin, 2008; Dikaya, 2007; Dubovitskaya and Krylova, 2010; Medvedev, 2003; Podoynitsyna, 2008; Vygotsky, 1983;2003). As for psychology, adaptation means, primarily, organism biologic function that serves to rearrange organism functions, organs and cells to preserve homeostasis under renewed environment conditions. Besides, the adaptation in psychology is usually understood as a psychological process for adjustment of sense organs to inducing stimuli to protect receptors from overload. Adaptation can also be a social one. Social adaptation means a human ability to establish its own behavioral pattern to conform to the conditions prevailing in a certain social environment." (Glossary. Psychological Dictionary)

Integration according to the analytical psychology dictionary means "a process that serves to merge parts into one thing; at personality level integration means organism status when all the personality elements act in unison as a single whole", and integrated personalities are able to generate holistic, non-rigid, self-managed groups". (Slovac.cc)

We have identified the following factors providing for positive adaptation and integration of modern students in a new group.

Our previous research (Fedotova et al., 2017) dealt with neuropsychological features intrinsic to first-year students, which contribute to and hamper adaptation of the group and inside the group and personal growth as well. First, nervous system of young people is still immature; it features plasticity, which has both positive and negative sides. It is necessary that educational process planning and conducting consider, on one hand, ability to absorb information quickly and flexibly and, on the other one, emotional and hormonal stress. Second, students are in desperate need of adaptation to individual and team conditions of work, which is qualitatively different from school activities they are already familiar with, and from individual and group integration. This group formation is not territory- or age-related, as at school, but is based on their individual interests. The students, who have chosen to study economics and its associated aspects, in their actual life find themselves surrounded by people with theoretically similar interests but with different cultural and social patterns, mutual adaptation to which guarantees successful study, group and self-directed learning. As our previous research has proved, since first-year students demonstrate trends to conflict mitigation with no conflict of culture in place as well as inability to constructive criticism, we have chosen various group research types that contribute to development of group roles, conflict experience and settlement.

We would like to review another important aspect that qualitatively distinguishes modern students from their forerunners. In XXI century, a university student has access to unlimited amount of information, which search requires relatively little time and resources. Using modern libraries and Internet, a student can quickly find the required facts, but often feels confused when trying to structure them and segregate into primary and secondary ones. Modern young people, on one hand, are privileged to have access to knowledge and on the other, live in the environment with lots of junk information that, virtually, contaminates the information field and, primarily, drains student's educational and cognitive resources. For this reason, the techniques selected by us have been aimed not only at development of relations and roles in a group, but also at stimulation of an educational and cognitive process.

2. Research Participants

A group of students attending various lectures and seminars together, including those in the Foreign Language course, joined the research as participants. The participation was anonymous and voluntary.

Foreign Language lessons take place once a week, sometimes twice a week, depending on the curriculum. During the first academic term, the group included 13 persons, 18-20 years old. It is important to note that students are free to choose seating arrangement options in classrooms, most often they sit in pairs, they also can choose partners in small working groups. During the first academic term, most of the time the students broke up into same pairs, in a way that one group member (the student will be described) was always sitting alone. Below we will definitely indicate how the techniques selected by us influenced the group mobility and stability, but we believe it is important to point out right now that we have succeeded not only in integrating a "solo" student into a group/groups in a positive manner but also in enhancing flexibility of group partner/partners choice.

Despite the illusion that academic time budget is sufficient, high proficiency of teachers and researchers, in fact, ensured successful research study without compromising the pedagogical process.

3. Research Stages

The research was carried out in several stages to reduce a load on research subjects and during early first academic term when first-year students get familiar with the University, its structure and specifics, observation and unstandardized interview with the students in the group proved to be the most important research tools. Teachers managed to allow time for discussions addressing differences between high and higher school/university studies, as well as expectations and students' fears related to them. The findings delivered during this stage include expanded range of psychological techniques and selection of pedagogical methods applied to work in groups. It was also important for us to establish, to the extent feasible, trust-based relations between students and a teacher, demonstrate the teacher's concern not only about students' success, but about their soft competencies as well. Why does it happen that relations established between students and a teacher based on equal rights and trust are important not only to the educational but to the research process as well? One of the findings delivered by our previous research is the hypothesis for the influence of the teacher's status on possibility to demonstrate preparedness to conflicts inside the group, which quite often involve the teacher. We herein tried to relieve psychological stress related to the fact that students perceive the university teacher as a critic only and, instead, offered them another teacher's role - a partner in

knowledge acquisition and social role assimilation. Various disputes and discussions dedicated to both the economics and related social phenomena contributed to creating comfort conditions for the students and teachers, since these events relieved anxiety of the former and provided meaningful data to the latter. "It is possible to form and develop interpersonal trust-based relations only if communicators treat each other as a value." "In the course of their career teachers should always strive to overcome a contradiction between the demand for the innovative, definitely more complicated, but more productive educational method and the traditional authoritarian and routine one." (Voskovskaya and Karpova, 2017).

Early second month of the first academic term we collected results derived from use of the tested and proven psychological techniques, in particular, Q Methodology – Stephenson Sorting, "Composite Roles" by Galkina (2001) and K. Seashore Group Cohesion Index (Fetiskin et al., 2002). The results and their review enabled us to arrange the academic activity as per our goals, in particular, in a way to achieve the high-level adaptation to university studies and work in a new group, incorporating new knowledge acquisition process and formation of new competences.

The research second stage involved use of selected pedagogical methods, teaching patterns and modes in a certain group, which will be described in the next section.

The research third stage was dedicated to the repeated data collection supported by two psychological techniques - Composite Roles and Group Cohesion Index, processing and review of the results.

4. Pedagogical Methods

Having obtained psychological research data as of the early first academic term, we identified educational methods and modes, which had to facilitate and actually facilitated adaptation and integration of students in the group.

It is obvious that both group and individual work modes inside the group are important for adaptation and integration. We have chosen the following group working modes:

Preparation and presentation of proceedings and reports in groups dedicated to various topics under the Foreign Language curriculum. The students, all by themselves, split into small groups, 3-4 people each, selected a topic at their own discretion and regulated the intragroup work. The only requirement was to meet the work deadline and all three small groups succeeded in it. The work papers were presented in the conference format; three study groups took part in it, they discussed pros and cons of each report and selected the best work paper.

Similar type conferences were arranged twice: the late first academic term and the early second academic term. With the positive experience of group work gained, we managed to motivate the students from this group to participate in the first-year student extracurricular conference where they presented their group projects. We believe it is very important that the students could have an opportunity to be not just a part of the small group, but also could represent the interests for the small group in the common event that would strengthen its cohesion, team spirit and personal responsibility.

Late second academic term we decided to conduct one more small-scale intragroup conference to select the best work paper in order to promote positive experience of the competition and performance appraisal of personalities in the group. Given the fact that the group embraced separate personalities with various roles and strengths, it was very important for us not only to build the team spirit but also to create positive competitive environment, encouraging the students to development and creative work. Notwithstanding that, this conference allowed for student participation both in groups and on the individual basis, that time the majority of students decided to present individual projects and demonstrate knowledge and skills accumulated in the course of two academic terms.

To relieve students' anxiety about positive completion of the studies in any subject, and to stimulate their creative thinking, Plekhanov Russian University of Economics has implemented an additional method that helps to get extra scores in the subject under study, namely, creativity rating, which served as a framework for some of the events described above.

5. Psychological Techniques

Q Methodology – Stephenson sorting (Galkina, 2001). This technique studies person self-image and gives an insight into the behavior and function of an individual in the group. The advantage provided by this technique is the chance to study the real self of the research subject and not compliance with the social code and trends. It allows identify six major person behavioral trends in a real group: dependence, independence, sociability, unsociability, fight acceptance and avoidance.

Composite roles (Galkina, 2001). This technique allows study roles of separate individuals in the group describing the roles consistent with their functions. In a successfully functioning group, each member plays one or several of eight roles described below and these roles are distributed inside the group in a way when, ideally, each role could be represented, at least, by one person.

Determination of K. Seashore group cohesion index (Fetiskin et al., 2002). Group cohesion is one of the most important parameters indicating the group integration level, its adaptability and wholeness. This means group affiliation for the members, their mutual relations, commitment to unified values and orientation cues.

6. Results and Their Review

Table-1. "Q - Sorting" technique application results and their review

Trends	Number of the respondents featuring prevalence of this trend
Dependence	9 (2- the trend is not apparent)
Independence	2 (2 the trend is not apparent)
Sociability	12
Unsociability	1
Fight acceptance	3 (2 the trend is not apparent)
Fight avoidance	8 (2 the trend is not apparent)

We tested this technique in 2016-2017 research when it was applied to the first stage of psychological and pedagogical research only, since it was important that we considered trends in groups so that we could, based on the results, efficiently influence the pedagogical and integration processes.

The research results showed that two- thirds of the group demonstrated trends for dependence on group norms, indecisiveness and submission to leaders. Only two group members, less than one-sixth, who did not show this trend, demonstrated ambivalence and independence of actions from group norms, self-sufficiency and persistence in goal achievement. It means that the educational process and work in groups should be arranged in a way to enable the students to create and define the norms, pertinent personally to this group, and potential to achieve them (in this case, one of the "ideal" norms means ability to think critically and discuss these critical remarks in the group) and facilitate development of leadership skills in majority of the members, maintaining the group integrity and vitality.

Most respondents, 12 out of 13, demonstrate strive after forming emotional bonds, openness for communication; desire to create personalized relations inside the team. As per research results, only one person tends to be "unsociable", the description of this student will be provided later. A youthful team with non-established social bonds, where probability for negative responses from group members is highly unpredictable due to poor communication experience, features high sociability level. Manifestation level of this factor also describes "health" of the group, which did not show any serious conflicts within the first weeks of study, but also lacked any conflict resolution culture. Openness and interest to fellow students constitutes the important result of this research focused on stimulating both interpersonal and intrapersonal communication in the course of activities, which will be demonstrated by the results, derived using other techniques.

Fight avoidance – avoidance of interaction, indifference and quest for compromise, self-surrender. Two-thirds of the group demonstrate this trend. While fight acceptance means strive to participate in the life of the group, to achieve a status in the group, insistence in achieving own goals, exactingness. Only few respondents feature this behavior, since it may result in conflicts and first-year students do not have developed conflict resolution culture.

Table-2. Results of Research Based on Composite Roles T.P. Galkina and their Review

Research participant	Academic term I	Academic term II
1	Explorer of resources, work facilitator	Generator of ideas, evaluator of ideas
2	Work facilitator, group facilitator	Evaluator of ideas, builder
3	Group facilitator, generator of ideas	Chairperson, generator of ideas
4	Generator of ideas, closer, chairperson	
5	Chairperson, work facilitator	Chairperson, generator of ideas
6	Evaluator of ideas, work facilitator	Closer, evaluator of ideas
7	Chairperson, explorer of resources	Explorer of resources, generator of ideas
8	Builder, group facilitator	Work facilitator, builder
9	Closer, work facilitator	Group facilitator, closer
10	Work facilitator, closer	Explorer of resources, generator of ideas
11	Chairperson, work facilitator	
12	Work facilitator, generator of ideas	
13	Work facilitator, builder	Builder, closer

The results derived through the technique application suggest relatively This table presents comparative results derived through application of "Group roles" techniques by Galkina (2001). in the middle of the first academic term and at the end of the second one.

Ten out of thirteen participants took part in the second research stage, which will not worsen the research representation level.

Analysis of the results presents that most students assumed "group or work facilitator" role in the middle of the first academic term. They were ready to take up productive activities and deemed it important to work in a cohesive team. Only one student envisaged the possibility of being a critic- evaluator of ideas, when all others focused on a particular physical aspect of the group work, which presumed "work facilitator", "facilitator of ideas" "generator of ideas" roles, avoiding evaluator of the group and group member activities.

Owing to various teaching techniques and psychological studies (Galmuk, 2008; Galperin, 1998; Kunitsyna, 1995; Latysh, 2007; Leontiev, 1998) applied in the lessons aimed at improvement in student adaptation, we managed to achieve prominent positive results. At the end of the second academic term, only one participant could assume taking on a group facilitator role, a person responsible for the group cohesion. It means that participants do not need many mediators; they are capable of expressing their own ideas and accept ideas presented by others without fear of hurting their feelings. One of the important results we achieved in working with this group included the ability to prevent conflicts and efficiently resolve the existing ones. Management roles, i.e. a chairperson and builder, as well as an explorer of resources, a person who connects the group to the outside world, came to the fore. This testifies to the fact that the group no longer feared its fragility and instability, but was ready to work as a single entity, re-evaluate the roles and change them without breaking the general structure. While at the start of studies, the students tended to assume work and group facilitator roles, by the second academic term completion they, mostly, changed their roles and built an efficient team, which would keep its integrity in presence of internal criticism and the outside influence the group could already deal with, converting them into a resource. Now they are able to generate ideas and constructively criticize them, to act as a source, monitoring various stages of the group work, as well as its pace and accuracy without disturbing the positive emotional environment in the group. The empirically derived trend to anxiety relief, described above, was also confirmed by these results.

Table-3. Results of Research Based on K. Seashore Group Cohesion Index Method and their Review

Research Participant	Group Cohesion Index Academic Term I	Group Cohesion Index Academic Term II
1	16	16
2	18	18
3	16	18
4	16	16
5	10	14
6	18	16
7	17	18
8	15	18
9	19	17
10	19	17
11	18	18
12	17	17
13	18	19

This table represents changes in the group cohesion index during the first academic year. In order to achieve high efficiency and emotionally comfortable environment in the group it is very important to create the conditions when this group works as a complete whole, pursues similar goals and shares similar values.

Inherently high, overrated group cohesion level is the first result derived from the research that deserves mentioning. In 2016-2017 research (Fedotova *et al.*, 2017), we discussed high-level group cohesion at the initial phase of the group formation, underscoring the fact that students had rather idealized expectations about the work in a small group. We derived similar results at the first phase of the present research. Most respondents demonstrated a high-level group cohesion; however, it is extremely important to note that one group member demonstrated a low-level group cohesion (as compared with other members). We initially identified this member as a reference person whose results would demonstrate success of the student adaptation methods chosen by us.

Let us describe this respondent. Since the group includes 13 persons and usually the students sat in pairs during lessons, we soon observed that this student always sat alone. In case any of the group members was absent, this student preferred to work solo and did not join other group members even if a place near somebody was vacant. It is important to note that exactly this student initially demonstrated the poorest knowledge of Foreign Language subject; but we assume that unwillingness to participate in the group work or stay in close contact with other group members was probably due to negative school experience of group work and not due to the fear of failure or criticism. Below we will describe the results derived from the group role research, which testify to the fact that the group was not ready to criticize its members, create and solve various conflicts at the initial phase of group studies. Therefore, we assume that negative experience in pre-university group work attests to this type behavior.

Intensified work with this student, his/her engagement in the group work without insisting on creation of group projects, positive experience in presenting completed work results enabled us to achieve maximum positive results. Already early second academic term, having obtained positive experience of joint work with other group members (for example, when preparing and delivering presentations during hands-on sessions and extracurricular events) we noticed that the student changed the place in the classroom. If previously this student had sat far from his/her fellow students, now he/she more often took a seat closer to the teacher together with one or two members. We observed significant improvement of interpersonal communication with this student inside the group; he/she became a more popular choice for the group work and for a partner during routine classes. Having greatly increased the group cohesion index and integration into the group nearly one-and-a-half times, which represent an excellent achievement, the student also demonstrated significantly improved level of knowledge.

One more student whose group cohesion index was lower than that of his/her fellow students, also demonstrated improvement in integration from medium to high level, which confirms the efficiency of the selected methods that serve to improve student adaptation.

Other respondents demonstrated a high group cohesion index. Most of them manifested slight changes either upward or downward, which testify to the ability to reflect on their position and self-awareness, self-representation in the group. Zero rigidity is very important for us, since it attests to achievement of the desired result, namely, opportunity to change personality and working relations and self-perception of these relations inside a stable efficient group.

7. Conclusions

The university pedagogical process is constantly developing and changing to accommodate needs of students and teachers; meet high requirements for education quality and efficiency, global social trends. Both teacher and student roles have significantly changed within the recent decades, thus entailing changes in interpersonal and professional communication.

Teachers' ability to take a creative approach to student teaching, their desire to evolve and absorb new knowledge is mandatory for their successful work.

The present-day requirements apparently call for the work with first-year students include fast study and social adaptation of students that provides for successful educational process in colleges and universities, which graduate not only professional, but also individuals with developed personality who can successfully compete in the labor market and advance the science. This research has highlighted the importance of mastering present-day teaching methods and acquiring psychological knowledge by teachers, since they contribute to creating an orchestrated process that meets various multifactor demands.

The key result of this research – necessity and opportunity to successfully use the methods, which integrate student personal and group adaptation, in learning   activities.

In future, we are planning to follow up these ideas, undertake various researches and elaborate creative teaching methods and participate in various conferences to discuss and promote the results derived from this research.

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