

Modelling Individual Educational Trajectories for Future Psychologists: A Ukrainian Case Study in Sustainable Higher Education

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ABSTRACT:

Purpose: This study aimed to develop and preliminarily evaluate a model for supporting individual educational trajectories among first-year psychology students through structured familiarisation with available educational programmes.

Design/methodology/approach: A single-site sequential mixed-methods case study combined baseline and post-course surveys of 146 students with three stages of focus group work involving university staff. Descriptive statistics and structured qualitative synthesis were used to integrate student preferences and expert recommendations.

Findings: Personal preferences and beliefs influenced all respondents' choices; 77% also considered employment prospects and societal relevance, and 41% considered programme content. After completing the Professional Self-Determination Training course, 61 students (42%) selected a programme different from their preliminary preference. The resulting model integrates ranked

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programme preferences, academic guidance, academic performance, and programme capacity requirements.

Originality/value: The study presents an institution-level approach to informed programme choice that may strengthen student agency and support the quality, relevance, and adaptability of higher education in line with SDG 4.

Keywords: individual educational trajectory, psychology students, student agency, professional self-determination, programme choice, sustainable higher education, SDG 4

1. Introduction

The profession of a psychologist is undoubtedly relevant today due to many factors that affect the effective activity of an individual in today's globalized society. In Ukraine, the issue of relevance and increased demand for psychologists occurred in connection with the COVID-19 pandemic, when people were forced to stay at home within the framework of lockdowns, which caused many psychological problems for citizens (Stoliarchuk et al., 2022b). The psychological well-being of the Ukrainian population has been further affected by the full-scale invasion of Ukraine by the Russian Federation, which began on 24 February 2022. This has caused many psychological problems, injuries, and disorders due to daily active hostilities on the territory of Ukraine and the constant bombing of cities with civilian populations and civilian objects. Post-COVID development of society, the Russian-Ukrainian war, post-war restoration of liberated territories, reform of the educational sphere (Panok, 2023) are the main areas of work of a Ukrainian psychologist in the present and near future.

Studies (Palko, 2025; Drozdov, 2023; Lebid, 2024; Kalishchuk, 2022) indicate a great need for training psychologists to work with the civilian population and especially with combatants in war and post-war periods. Therefore, accordingly, the question arises about the quality of training of future psychologists and their ability to build an effective educational trajectory for working in changing conditions.

According to the website <https://vstup.edbo.gov.ua/>, which is a source of information on the progress and results of admission campaigns in Ukraine, in 2025, 170 higher education institutions offered studies in the specialty "Psychology" (according to various educational programs) at the first (bachelor's) level, while 842 competitive offers were offered for admission in full-time, part-time and distance learning forms. Each university admitted to a specific educational program within the Psychology major. When applying an educational program, a student can no longer change his choice of educational program and must form his/her educational trajectory within the framework of the chosen educational program, which, according to some studies (Mykhalchuk, 2024), can be spontaneous, accidental, unplanned and lead to disappointment and even a change of educational program and university for higher education.

Given this, in 2025, Borys Grinchenko Kyiv Metropolitan University (BGKMU) decided that applicants will be able to enrol in the specialty "Psychology" with a subsequent step-by-step choice of: 1) an educational program from four existing ones (Practical Psychology (PP), Counselling Psychology (CP), Social Psychology (SP), Business and

Management Psychology (B&MP)); 2) an additional selective block of psychological cycle disciplines or disciplines for the formation of general competencies; 3) additional selective psychological cycle disciplines or disciplines for the formation of general competencies that are not included in the curriculum. Such a strategy for forming an effective individual educational trajectory of a future psychologist will contribute to effective professional development and motivation for professional choice, priority areas for becoming a professional, determinants of success of future psychologists (Stoliarchuk *et al.*, 2022a) and corresponds to the best global and European practices in the training of psychologists.

For example, at universities in Canada (Study of Psychology in Canada), applicants enter the specialty "Psychology" and can then independently (or with the help of a consultant) shape their educational trajectory. Most universities in Europe also offer admission to a specialty with subsequent independent construction of an educational trajectory and choice of specialization or direction of study. For example, in Switzerland, at Sigmund Freud University (Vienna Sigmund Freud University Vienna), a student can choose a major in Psychology or Psychotherapy and then choose a major from a list of psychotherapy schools. There are also other classical models (Newstead & Makinen, 1997), which still function effectively today in European universities - a student can choose a 3+3 psychology course, where the first three years are spent studying general psychology and the next 3 years are spent choosing a specialization and building their individual educational trajectory. However, after the first three years, a student can complete their studies and not choose a specialization. That is, upon entering a university, a student chooses the direction in which he / she wants to study, and which meets his / her needs, and, accordingly, whether he / she has the qualifications for this (regulated by the rules of admission and academic success).

The development of individual educational trajectories can be considered within the broader framework of sustainable higher education. Sustainable Development Goal 4 calls for inclusive and equitable quality education and lifelong learning opportunities for all, while Target 4.4 emphasises the development of relevant skills for employment, decent work, and professional activity (United Nations, 2015). In this context, an individual educational trajectory is not limited to the formal selection of courses. It can function as an institutional mechanism for aligning students' interests and abilities with curriculum content, professional competencies, and changing societal needs. Structured familiarisation with available educational programmes may therefore support more informed decision-making and enhance the relevance, responsiveness, and adaptability of higher education.

2. Theoretical Background

The development of individual educational trajectories in Ukraine is enshrined at the legislative level. In particular, the Law of Ukraine "On Education" states that an individual educational trajectory is a personal path to realizing the personal potential of an education seeker, which is formed taking into account his / her abilities, interests, needs, motivation, opportunities and experience, and is based on the choice by the education seeker of the types, forms and pace of obtaining education, subjects of educational activity and the educational programs offered by them, academic disciplines and their level of

complexity, methods and means of learning (On Education, 2017). In accordance with the Law of Ukraine "On Higher Education" (On Higher Education, 2014), students may choose academic disciplines provided for the level of higher education being obtained, as well as for other levels subject to the approval of the Dean of the Faculty. The volume of selective disciplines is not less than 25% of the total number of ECTS credits.

Each student has the right to an informed choice of all the main components of his or her education (Shevchuk, 2021), which is an individual educational program. An individual educational program (Bogachkov et al., 2021) is a program of educational activities of a student, compiled based on his or her interests and educational needs, which fixes educational goals and expected results. The studies (Yurchenko et al., 2024) substantiate that an individual educational program helps to increase students' involvement and motivation in educational activities, develop their self-confidence: awareness of both learning goals and the process of achieving them; increased responsibility for one's own learning and development; increased self-confidence; understanding one's own strengths and weaknesses and how to use them to achieve success; focusing on the flexibility and unique needs of students.

An individual educational trajectory (IET) is the result of realizing a student's personal potential in education through the implementation of appropriate types of educational activities (Bogachkov et al., 2021). It is believed (Shevchuk, 2021) that the formation and implementation of an IET is a process designed to ensure the development of a student's independence and initiative, to enable the fullest realization of his personal and cognitive potential. IET (Skotna & Lialiuk, 2020) contributes to student training within the limits of his / her interests.

According to scientists (Sarancha et al., 2021), an important part of building an IET is the introduction of a booster period, when the student learns to "learn", acquires skills in critical thinking, group work, reading and analysing scientific literature, etc. The most important findings that emerge from the study of Tuchina N. et al., (Tuchina et al., 2020) is the evidence of interrelation between the level of learner autonomy and the success in designing a personal educational pathway. The more responsible for their studies students become, the more flexible their study strategies get and the wider their range gets. Alongside with developing awareness of the impact of their decisions on the results of their learning and career perspectives, students start using reflection, self-evaluation, and self-correction more often.

One of the new forms of implementing an IET in Ukraine today is the use of network educational programs (Ley, 2024). The main objectives of such an educational program are to expand the range of educational services in order to implement IETs of students within the framework of the chosen educational program, to expand the conditions and opportunities for students to acquire professionally significant, unique competencies (Rhodes & Marsh, 2022); expanding students' awareness of available educational and other resources, allowing them to make informed choices about their own educational trajectory (Newton, 2023). Some authors (Holodniak, 2025) indicate that an IET can be implemented by a student through cross-crediting learning outcomes from one discipline to another or learning outcomes obtained within non-formal and informal education can be recognized.

One of the ways to implement the university's individual educational strategy is the supervisory support of psychology students both in the learning process and during their professional development (Davidsson & Stigmar, 2021). Such support can take place during university studies during the study of disciplines of mandatory or selective educational components and be carried out in the form of lectures, seminars, practical tasks, problem-based learning, supervision simulation, action learning, etc. According to scientists (Skotna & Lialuk, 2020), one of the effective models of such support is the functioning of a psychological service in higher education institutions. One of its key tasks is planning the individual trajectory of the future professional's development, if necessary, correction and development of certain components or professionally important qualities.

The concept of "personal development planning" (The Quality Assurance Agency for Higher Education, 2009) is closely related to the implementation of IETs of students. "PDP" is defined as "a structured and monitored process that is implemented by the student him/herself. It consists in the fact that the student understands his/her learning process, success and (or) achieved results, and draws up a plan for his/her own individual, educational and professional development".

In research (Joubert & Hay, 2022) it is shown that not always the voices of the students regarding the curriculum and choosing their own educational trajectory is heard. If students' opinions and their desire to master practical skills are not considered, this can lead to weekly supervision by experienced lecturers enabling knowledge obtained through theoretical coursework to be applied during the practicum; various professional skills can also be gained during the practicum, enabling students to feel competent in the workplace. Among the limitations in shaping the IET of psychology students are also identified (Tarandeep & Newell, 2024) lack of diversity in course content, a perceived lack of community for students studying psychology, and proposed services such as discipline-specific writing support.

Some researchers from Australia (Australian Postgraduate Psychology Simulation Education Working Group, 2021) propose using an approach based on simulated learning activities in psychology training programs as one way of building an IET for psychology students. This approach can be implemented based on 9 criteria that will allow students to master the practical skills of a psychologist (Australian Postgraduate Psychology Simulation Education Working Group, 2021): competency based, opportunity for new learning, parallels real life psychology practice, trainee active participation, structured processes, supervised, reviews and feedback on trainee performance, opportunity for trainee reflection, opportunity for stakeholder feedback. When forming the IET of future psychologists, researchers (Shield, 2023) highlight the support of the psychological well-being of applicants as one of the important aspects: facilitating relationships; adapting models of support; ensuring clear communication; providing practical support and mediating.

Researchers (Thibault et al., 2024) also draw attention to the fact that when forming an IET of a psychology student, some educational components should not be singled out as optional but should be included in the mandatory curriculum. For the psychologist in the future, mastery of research methods and methods of statistical data processing is critical. Research methods in undergraduate psychology should emphasize foundational skills in research design, data handling, statistics, qualitative methods, and

critical assessment while providing students with transferable skills and not overloading them with advanced techniques (Thibault et al., 2024).

From the perspective of sustainable education, the construction of an individual educational trajectory is closely related to student agency. The OECD Learning Compass 2030 identifies student agency, well-being, and the ability to navigate unfamiliar situations responsibly as important dimensions of future-oriented education (OECD, 2019). An educational trajectory based on informed choice, reflection, and institutional guidance enables students to take greater responsibility for their learning while receiving the support necessary to make academically and professionally justified decisions. This approach is particularly relevant in conditions of uncertainty and disruption, when higher education institutions must combine curricular stability with responsiveness to students' needs and changes in the labour market.

Therefore, this study aimed to develop and preliminarily evaluate a model for supporting the formation of individual educational trajectories among first-year psychology students through structured familiarization with available educational programmes, analysis of students' programme preferences, and expert-informed refinement of the programme selection procedure.

The research questions bring together the student and institutional dimensions of an individual educational trajectory (IET). Students' initial preferences reflect their interests and expectations, while changes in these preferences show how their choices develop as they learn about the available programmes. Academic performance provides information about their progress during the first year, although it does not, by itself, establish suitability for a particular programme. Expert recommendations address how the university can support informed choice through academic guidance and a transparent programme selection procedure. Together, these elements frame programme choice as an early stage in the formation of an IET and connect student agency with an adaptable institutional approach to higher education. Accordingly, the study addresses the following research questions: RQ1: What factors influence first-year psychology students' choice of an educational programme, and how do their programme preferences change after completing the Professional Self-Determination Training course? RQ2: How can students' preferences, academic performance, and expert recommendations be integrated into a model for supporting the formation of individual educational trajectories?

3. Research methodology

3.1 Research Design

The study employed a single-site, sequential mixed-methods case study design with an iterative developmental component. It combined descriptive quantitative data obtained from first-year psychology students with qualitative evidence collected through three stages of focus group work. The design was intended to identify the factors associated with students' choice of an educational programme, examine changes in their programme preferences after completing the Professional Self-Determination Training (PSDT) course, and develop an expert-informed model for supporting the formation of individual educational trajectories.

The study comprised six consecutive phases: (1) initial development of the PSDT course by the Stage 1 focus group; (2) a baseline survey of first-year psychology students; (3) implementation of the PSDT course; (4) a post-course survey and final programme selection; (5) analysis of the student survey findings and course implementation by the Stage 2 focus group; and (6) expert appraisal and refinement of the proposed programme selection algorithm by the Stage 3 focus group.

The quantitative and qualitative components were integrated during Stages 2 and 3. The participants in these focus groups considered the students' preliminary and final programme choices, reflected on the implementation of the PSDT course, and used these findings to formulate and assess proposals for improving the individual educational trajectory model.

3.2 Focus Group Participants and Procedure

The qualitative component consisted of three stages of face-to-face focus group work based on the focused interview method described by Merton *et al.* (1990). University staff members with relevant experience in higher education and in supporting psychology students' academic and professional development were purposively selected. The participants' statements and proposals were documented with their consent.

The Stage 1 focus group comprised seven staff members from different departments of Borys Grinchenko Kyiv Metropolitan University (BGKMU): one Doctor of Sciences and Associate Professor, five PhDs and Associate Professors, and one participant without a doctoral degree. Their experience in higher education was distributed as follows: one participant had 1–5 years of experience, three had 5–10 years, one had 10–20 years, and two had more than 20 years of experience.

The purpose of Stage 1 was to develop the content and structure of the PSDT course and the initial procedure for students' selection of an educational programme. The discussion addressed four questions:

1. Which course topics could support the achievement of the learning outcomes associated with each educational programme?
2. Which forms of teaching and learning could most effectively familiarize students with the content and specific features of each programme?
3. Which types of independent work could promote students' critical reflection and informed programme choice?
4. Which form of module assessment could enable students to present and justify their programme preferences?

The Stage 2 focus group comprised 11 faculty members: one Doctor of Sciences and Professor, one Doctor of Sciences and Associate Professor, six PhDs and Associate Professors, two PhDs and Senior Lecturers, and one participant without a doctoral degree.

The Stage 2 discussion addressed the following issues:

1. Whether career guidance assessment could be used to identify students' predispositions towards particular educational programmes;
2. Which academic disciplines should be considered when calculating students' academic ranking;
3. How students' programme priorities and academic performance should be balanced;

4. When students should indicate their programme preferences;
5. How weighting coefficients for different groups of academic disciplines should be established;
6. Whether the content and organization of the PSDT course required revision; and
7. Whether the programme-specific modules should be taught concurrently or sequentially.

The Stage 3 focus group comprised seven university staff members. Its purpose was to appraise the proposals developed during Stage 2 and formulate the final algorithm for programme selection and student distribution. The participants reviewed the proposed use of career guidance assessment, the role of academic performance, the weighting assigned to different academic disciplines, the timing of programme selection, and the procedure for considering students' ranked programme preferences. Based on this appraisal, the group developed a revised model for supporting the formation of students' individual educational trajectories.

3.3 Change in inter-organisational contexts

The student component of the study involved all first-year bachelor's students enrolled in Psychology at BGKMU ($n = 146$). The baseline survey was administered in March 2026 before the beginning of the PSDT course. The questionnaire was distributed through Google Forms using the students' institutional email addresses.

The baseline questionnaire contained six questions:

1. Whether the student had entered the university with a clear understanding of which educational programme they intended to select;
2. Whether the student had reviewed the content and characteristics of each programme before entering the university;
3. Which factors would influence the student's programme choice, with up to three response options permitted: personal preferences and beliefs; programme popularity and attractiveness; content and characteristics of academic subjects; opinions of friends or parents; employment prospects and societal relevance; and an open-response option;
4. Which educational programme the student was initially inclined to select: Practical Psychology (PP), Counselling Psychology (CP), Social Psychology (SP), or Business and Management Psychology (B&MP);
5. Whether the student believed that their preference might change after completing the PSDT course;
6. Whether the student considered selecting an educational programme during the first year of study to be an appropriate institutional approach.

Following the baseline survey, the students completed the PSDT course, which introduced the content, curriculum, professional orientation, and employment prospects associated with the four educational programmes.

After completing the course, the same students ($n = 146$) completed a second Google Forms questionnaire in which they indicated their final choice among the four educational programmes. Identifiable information was collected solely to match each student's baseline response with their post-course selection. The matched data made it

possible to determine both aggregate changes in the distribution of programme choices and the number of students who changed their initial preference.

3.4 Data Analysis and Integration

The student survey data were analysed using descriptive statistics. Frequencies and percentages were calculated for the questionnaire responses and for the preliminary and final programme choices. Because the baseline and post-course responses were matched at the individual level, the analysis also identified the proportion of students whose final programme choice differed from their preliminary preference. No inferential statistical tests were performed.

The proportion of students who changed their preference was treated as a descriptive measure of individual-level change. It does not indicate whether changes followed a systematic pattern across the four programmes, nor does it establish that the PSDT course caused them. An analysis of the matched baseline and final choices in a four-by-four transition table could provide a more detailed account of the direction and distribution of these changes.

The focus group materials were analysed through a structured qualitative synthesis of the participants' proposals, arguments, and points of agreement or disagreement. The analysis focused on recurring recommendations concerning the content and organization of the PSDT course, the timing of programme selection, the role of students' academic performance, the use of ranked programme preferences, and the procedure for allocating students to educational programmes.

Integration occurred iteratively. The Stage 1 focus group findings informed the development of the PSDT course; the student survey findings and implementation experience informed the Stage 2 discussion; and the Stage 2 proposals were critically reviewed during Stage 3. The final model therefore combined evidence concerning students' preferences with expert recommendations concerning academic guidance and programme allocation.

3.5 Ethical Considerations

Participation in the student surveys was voluntary. Before completing the baseline questionnaire, students were informed about the purpose of the study, the intended use of the data, and the measures taken to ensure confidentiality. They provided informed consent and were informed that participation or refusal to participate would not affect their course grades, choice of educational programme, or academic standing.

Identifiable information was collected solely to match the baseline and post-course responses. After the responses had been matched, personal identifiers were removed from the analytical dataset. Only aggregated and de-identified findings are reported in this article, and no information that could be used to identify individual participants was included in the analysis or publication. Focus group participants also consented to the documentation and research use of their contributions.

4. Results and Discussion

The empirical phase began with the development of the PSDT course by the Stage 1 focus group. To contextualize this process, it is first necessary to outline the structure of bachelor's-level psychology training at BGKMU.

The training of psychologists at the first (bachelor's) level of higher education in Ukraine lasts a total of 3 years and 10 months and consists of 240 (1 credit = 30 hours (14 hours of classroom lessons, 2 hours of module control, 14 hours of independent work)) ECTS credits. At the same time, the mandatory part of the training is 180 credits, and the selective part can be at least 60 credits.

The curriculum of each educational program is designed so that, regardless of which educational program a student chooses, in the first year he will study the same disciplines of general psychological training and general disciplines, the consideration of which is required by the Standard of Higher Education in the specialty of Psychology in Ukraine. These are 11 disciplines in the first and second semesters: 1st semester – University Studios (Servant Leadership, I am a student, Introduction to the specialty), Ukrainian Studios (Historical Studies, Culture of Oral and Written Speech (Ukrainian), Human Rights and Citizenship of Ukraine), Foreign Language (English), Physical Education, Human Psychophysiology with Basics of Genetics, History of Psychology, General Psychology with a Workshop; 2nd semester – continuation of studying Foreign Language (English), Physical Education and General Psychology with a Workshop, new ones – Personality Psychology, Developmental Psychology, Social Psychology and PSDT, which consists of 4 modules according to the names of the educational programs: PP, CP, SP, B&MP.

This structure of the curriculum allows students to make a choice during the first year of study and begin their 2nd year of study in a specific educational program with the study of specialized disciplines. For a deeper understanding of the structure of each educational program, the discipline “PSDT” was introduced (Lytvynenko et al., 2025) and because of the work of the focus group at Stage 1, such a structure of each of the 4 modules was developed (see Table 1).

Table 1: Structure of the modules of the training course “PSDT”

Name of content modules, topics	Total	Allocation of hours between types of work			
Content module 1-4. (PP / CP / SP / B&MP)					
Topic 1. Educational program "PP / CP / SP / B&MP" and qualification "Bachelor of Psychology"	2	-	-	2	-
Topic 2. Academic disciplines of the educational program "PP / CP / SP / B&MP"	4	-	-	4	-
Topic 3. Selective part of the educational program "PP / CP / SP / B&MP"	2	-	-	2	-

Topic 4. Practice and employment prospects	4	-	-	4	-
Topic 5. Space for professional self-determination	16	-	-	2	14
Modular control	2				
Total	30	-	-	14	14

The participants of the Stage 1 focus group determined that each module would be taught using the same structure and on the same defined topics, but with content tailored to the specific educational program. As a result of the focus group, it was also determined that the module test will be comprehensive and will be conducted in the form of an essay, the topic of which will cover the questions of the four modules. Students are required to provide structured written answers to five questions. The maximum score is 100 points (25+25+25+25). The tasks for MCW 1-4 were defined as follows (Lytvynenko et al., 2025): Part 1. Formulate and describe 5 significant features for you: the educational program PP; the educational program B&MP; CP educational program; of the SP educational program. Part 2. Formulate your reasoned choice of the educational program you would like to study in the future (no more than 3 sentences). Present the results in an essay format of no more than 2 pages of typed text.

After the program was developed, the teaching of the training course began, before which the students were offered a short author's questionnaire, the purpose of which was to identify the features and factors that may influence their choice by students of the educational program and subsequent additional selective blocks and other educational components.

The results of the analysis of students' responses showed the following. Most students (59%) had a clear idea of their future educational program upon admission, however, 41% of students indicated a lack of such understanding and were focused on the specialty in general. To the question "Before entering the university, I got acquainted with each educational program and its features," the vast majority (68%) answered "Yes," which indicates a relatively high awareness and interest in choosing a future educational program, a desire for a conscious choice, and a desire to find a program that meets personal goals and expectations. However, a third of respondents (32%) answered "No", which may indicate trust in the general name of the specialty without studying its internal structure. When choosing the leading factor that will influence the choice of an educational program, students chose the following options (see Table 2).

Table 2: Factors influencing the choice of educational program

Justification of the choice of educational program	Percentage (%)
My own preferences and beliefs, Content and features of academic subjects, Employment prospects and importance for society	41

My own preferences and beliefs, Employment prospects and importance for society	36
My own preferences and beliefs	23

As shown in Table 2, personal preferences and beliefs were considered by all respondents when choosing an educational programme. The most frequently reported combination, selected by 41% of students, included personal preferences and beliefs, the content and characteristics of academic subjects, and employment prospects and societal relevance. A further 36% based their choice on personal preferences and beliefs together with employment prospects and societal relevance. The remaining 23% relied exclusively on their personal preferences and beliefs. Overall, employment prospects and societal relevance were considered by 77% of respondents, while 41% also considered the content and characteristics of academic subjects.

The responses to the statement “My programme preference may change after completing the PSDT course” were distributed as follows: 23% of students believed that their preference might change, 53% selected “maybe,” 17% were unsure, and 7% reported that they had already made a definite choice regardless of the content of the PSDT course. In response to the question concerning the appropriateness of selecting an educational programme during the first year of study, 66% answered “yes,” 23% selected “maybe,” 6% answered “no,” 3% were unsure, and 2% indicated that the timing of the choice was not important to them.

Thus, two-thirds of the respondents explicitly supported selecting an educational programme during the first year of university study, whereas the remaining students expressed varying degrees of hesitation, disagreement, uncertainty, or indifference. Before completing the PSDT course, students’ preliminary programme preferences were distributed as follows: PP — 78 students (53%), CP — 47 (32%), SP — 4 (3%), and B&MP — 17 (12%).

After completing the PSDT course, which was delivered during the first month of the second semester, the students completed a follow-up questionnaire in which they indicated their final educational programme choice. The preliminary and final distributions of programme choices are presented in Table 3.

Table 3: Comparative results of students' choice of educational program before and after completing the PSDT

Educational program	Before completing the PSDT (pre-selection)		After completing the PSDT (final selection)	
	quantity	%	quantity	%
PP	78	53	69	47
CP	47	32	53	36
SP	4	3	14	10
B&MP	17	12	10	7

As shown in Table 3, the distribution of students' programme preferences changed after completion of the PSDT course. The proportion selecting PP decreased from 53% to 47%, a difference of 6 percentage points. The proportion selecting CP increased from 32% to 36%, while the proportion selecting SP increased from 3% to 10%. The proportion selecting B&MP decreased from 12% to 7%. At the individual level, 61 students (42%) selected a programme different from their preliminary preference. This finding shows that programme preferences were not fixed for a substantial proportion of the cohort. Although Table 3 shows changes in the overall distribution of choices, it does not show which programmes individual students moved between. The changes occurred after the PSDT course, but the study design cannot establish that the course caused them. Students' developing interests, discussions with peers, concurrent coursework, and growing familiarity with university life may also have influenced their final choices. Without a control group or a more detailed analysis of paired transitions, the 42% figure should therefore be interpreted as a descriptive finding rather than evidence of the course's effectiveness.

After the completion of the course and the students' choice of educational programs, the work of Stage 2 of the focus group took place. The work began with a critical reflection on the process of teaching the PSDT and the results of the students' choice of educational programs. Several shortcomings in the organization of teaching the discipline were identified, which could have affected the selection results. The main drawback was the intensity of teaching the discipline (parallel teaching of modules, limited time - within a month), which could have affected the process of students' critical reflection on the content and features of each educational program and their subsequent choice. Among the shortcomings was also identified the consideration of only the wishes of students, without considering their potential opportunities for further study in a particular educational program.

In this regard, algorithms were developed to further improve the formation of individual educational trajectories of psychology students and their selection/distribution into educational programs. The proposals for the focus group were formulated as follows: 1) Use career guidance testing based on the short version of the psychological capital PsyCap-12S in the Ukrainian interpretation by Olefir V., Bosniuk V. (Olefir & Bosniuk, 2023). This will allow us to identify the components of psychological capital (self-efficacy, hope, resilience, and optimism); 2) Form a ranking list, taking into account the weighting coefficient from certain specialized disciplines (Human Psychophysiology with Basics of Genetics, General Psychology with Workshop, History of Psychology, Developmental Psychology, Personality Psychology, Social Psychology, PSDT); 3) Make distribution according to the established priority of the student and the overall success rating (taking into account success in all general and professionally oriented disciplines); 4) Establishing the priority of the educational program by the student at the stage of entering the university; 5) Take into account the success rating according to weighting coefficients within 1, which will be set separately for each type of discipline ($k=0.5$ for professional, $k=0.2$ for general, $k=0.3$ for PSDT); 6) The distribution of students by educational programs should be carried out at the end of the first year after studying all subjects of the 1st and 2nd semesters and passing all forms of control; 7) Set a clear number of students

for each educational program - a group (30 people) is recruited and admission to the educational program is completed; 8) Students should set the priority of the educational program after completing the PSDT; 9) Teaching the discipline "PSDT" should be done sequentially in modules throughout the second semester (February-May) - the next module begins only when the previous one has ended and students have had at least a week's break between modules.

All the findings of the Stage 2 focus group were submitted for critical reflection by the Stage 3 expert focus group. After processing the proposals, some shortcomings were identified and an algorithm for students to choose an educational program and further distribute students for further study was determined.

Among the shortcomings, it was found that career guidance testing using the short version of the psychological capital PsyCap-12S in the Ukrainian interpretation by Olefir V., Bosniuk V. (Olefir & Bosniuk, 2023) will not provide data that could be an indicator of a student's compliance with the educational program. In addition, processing the testing data is quite laborious and time-consuming. It was also found that it is impossible to determine the important disciplines of professional orientation for a particular educational program, since they are all fundamental theoretical foundations for any psychologist. The distribution of students according to their priority and overall success rating is also not entirely rational since the importance should be established by the indicator of professionally oriented disciplines.

Therefore, because of Stage 3 of the focus group work, the following algorithm was determined for the selection of educational programs by psychology students and their distribution according to them to form a further individual learning trajectory:

- 1) Students establish priorities for each educational program in ordinal order: 1 – highest priority, 2 – lower priority, 3 – possible, 4 – not interesting for further study;
- 2) Establishing a clear number of groups and their occupancy for each educational program, familiarizing students with this at the stage of entering the university;
- 3) Teaching the discipline "PSDT" should be made sequential by modules during the second semester (February-May) - the next module begins only when the previous one has ended, and students have had at least a week's break between modules;
- 4) Consider the success rating by weighting coefficients within 1, which will be set separately for each type of discipline. University studios, Human Psychophysiology with the Basics of Genetics, General Psychology with Workshop, History of Psychology, Developmental Psychology, Personality Psychology, SP should be included in professional disciplines with $k=0.5$. For the coefficient ($k=0.2$) of general disciplines, consider the results of the following educational components: Ukrainian Studios (Historical Studies, Culture of Oral and Written Speech (Ukrainian), Human and Citizen Rights of Ukraine), Foreign Language (English), Physical Education. A separate coefficient will be established for the discipline "PSDT" ($k=0.3$). The calculation of the rating score to be considered when distributing among educational programs will be carried out according to the following formula:

$R = (((PD1 + PD2 + \dots + PD7) / 7) \times 0.5) + (((GD1 + GD2 + GD3) / 3) \times 0.2) + (PSDT \times 0.3)$, where:

R – student rating; PD1 – PD7 – professional disciplines; GC1 – GC3 – general disciplines.

- 5) Distribute students to educational programs in accordance with the established priority, considering the ranking according to the number of established places in the educational program. Priorities should be considered sequentially - from 1 to 4.

The findings can be considered in relation to research on student interests and academic support, while recognizing differences in what these studies examined. Schiefele *et al.* (1992) investigated the relationship between interest and academic achievement, and Valentine *et al.* (2004) examined the relationship between self-beliefs and achievement. Our finding that all respondents considered their personal preferences when choosing a programme is consistent with the importance of student-related factors in education. However, we did not measure students' self-efficacy or test whether their programme preferences were associated with subsequent academic achievement. The present study therefore cannot confirm the relationships reported in those earlier studies.

Bettinger *et al.* (2013) discuss advising and other forms of academic support for students. Our study extends this discussion to a specific institutional decision: choosing among four psychology programmes after a course designed to introduce their content and professional orientation. The change in preference observed among 61 students suggests that initial choices may remain open to revision during the first year, although it does not establish an effect of the course. In this respect, student agency is expressed through an informed opportunity to reconsider and rank available options, supported by institutional guidance.

At the institutional level, Dickeson (2010) addresses the prioritization of academic programmes and resources, while Lafleur *et al.* (2021) examine the coordinated implementation of competency-based education across programmes. Our focus differs from both: the proposed model concerns how one university could organize students' programme choices and allocation within existing psychology programmes. It combines ranked student preferences, academic results, and programme capacity in an expert-informed procedure. Because this procedure has not yet been implemented or evaluated, its contribution is a model for further testing, rather than demonstrated improvement in academic outcomes.

Our study partially proposed the use of such components by considering the academic rating of students in the process of choosing an educational program for further study. One of the indicators of the quality of education, according to students (Tsinidou *et al.*, 2010), is many selective modules and disciplines, which ensures the high-quality construction of an educational trajectory.

The proposed model brings these elements together in practice. The PSDT course allows students to examine programme content and reconsider their initial preferences, while their first-year academic results provide an additional, though limited, basis for the allocation procedure. The focus groups translated these considerations into recommendations on academic guidance, ranked preferences, the timing of programme selection, and programme capacity. Thus, the model treats programme selection as a

supported decision within a longer individual educational trajectory, rather than as the trajectory in its entirety. This institutional process may support student agency and make psychology education more responsive to students' developing interests. These findings should not be interpreted as direct evidence of progress towards SDG 4; they illustrate a practice that may contribute to the quality and adaptability of higher education.

The model may also have indirect relevance to SDG 8 because informed programme choice and alignment between students' interests, curriculum content, and prospective professional roles can support their preparation for future employment. However, the present study did not assess employment outcomes, transition to the labour market, or the quality of subsequent employment. The relationship between the proposed model and SDG 8 should therefore be regarded as a potential longer-term implication rather than an empirically demonstrated contribution.

5. Limitations

This study has several limitations. It was conducted at one Ukrainian university with a single cohort of 146 first-year psychology students. The findings reflect a specific institutional arrangement: students entered the Psychology specialty before choosing among four educational programmes, and the PSDT course formed part of that choice process. The availability and content of these programmes may have shaped both initial preferences and final choices. Findings may therefore differ at institutions that admit students directly to a programme, offer other programme options, or organize guidance at a different stage of study. The study also did not examine whether preference changes varied according to students' backgrounds or other characteristics. Its findings should not be generalized to other institutions, disciplines, or student populations without further evidence.

The analysis was descriptive and did not examine the full pattern of changes in students' matched programme choices. A transition table and an appropriate analysis of paired categorical responses could have shown whether changes were concentrated in particular programme choices or reflected broader shifts across the cohort. Moreover, the study had no control group or random assignment. Concurrent coursework, peer interactions, and students' growing familiarity with university life may have influenced their preferences. The observed changes therefore cannot be attributed exclusively to the PSDT course, even if further statistical analysis were conducted.

Finally, the study examined only short-term changes in programme choice. It did not assess subsequent satisfaction, academic achievement, retention, or professional development. The proposed programme allocation algorithm was developed through focus group appraisal but has not yet been implemented or empirically validated. Future research should examine paired programme transitions, test the model across institutions and cohorts using comparative or longitudinal designs, and evaluate its relationship with students' academic progress and programme satisfaction.

6. Conclusion

The findings showed that personal preferences and beliefs were considered by all respondents when choosing an educational programme. Employment prospects and societal relevance were considered by 77% of students, while 41% also considered the content and characteristics of academic subjects. The most frequently reported combination of factors, selected by 41% of respondents, included personal preferences and beliefs, programme content, and employment prospects.

Furthermore, 66% of students considered selecting an educational programme during the first year of university study to be an appropriate approach. After completing the Professional Self-Determination Training course, 61 students (42%) selected a programme different from their preliminary preference. This finding indicates that a substantial proportion of students reconsidered their initial choice after receiving structured information about the content, professional orientation, and employment prospects associated with the four programmes. The focus group participants similarly supported a staged selection process that would allow students to make their final choice after becoming familiar with the available programmes.

The proposed model integrates students' ranked programme preferences, academic guidance, academic performance, and transparent programme capacity requirements. It therefore provides an institutional framework for supporting informed decision-making and the gradual formation of individual educational trajectories among first-year psychology students.

By combining informed student choice with structured institutional guidance, the proposed model may support the quality and adaptability of higher education in line with SDG 4. Its effectiveness, however, remains to be tested. A longitudinal study could follow students from their initial programme preference through programme selection and subsequent years of study, examining academic achievement, satisfaction with the chosen programme, and retention. Follow-up after graduation could assess professional development and the relevance of the selected programme to graduates' work. Comparative studies could examine cohorts using different programme selection procedures, while studies across universities and disciplines could test whether the model is feasible and produces similar outcomes in different institutional and educational systems. Such research would also need to account for differences in student populations, available programmes, and institutional rules before attributing outcomes to the model.

7. Ethics Statement

Participation was voluntary and based on informed consent. The participants were informed about the purpose of the study, the procedures for processing their data, and their right to decline participation without any academic consequences. Personally identifiable information was used only to match pre- and post-course responses and was subsequently removed from the analytical dataset. The findings are presented exclusively in aggregated and de-identified form.

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