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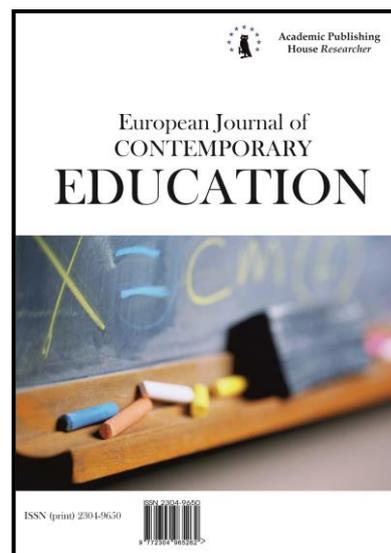
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## Educational-Cognitive Barriers in the Preparation of Future Social Pedagogues for the Prevention of Social Dependencies

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### Abstract

This paper brings to light the essence, characteristics, and role of educational-cognitive barriers in the preparation of college-attending future social pedagogues that may arise in the process of their mastering social-pedagogical skills related to the prevention of social dependencies. The authors share the findings of their study of a typology of such obstacles in the educational process. Special attention is devoted to typical educational situations in the preparation of students (e.g., getting engaged in methodological activity related to preventing social dependencies, testing mastered methodological schemes and algorithms in activity related to preventing social dependencies, and discovering methodological knowledge) and specific educational-cognitive barriers dominating these situations.

**Keywords:** social pedagogue, educational-cognitive barriers, prevention of social dependencies.

### 1. Introduction

Among the most acute and multi-faceted interdisciplinary issues facing researchers today is the issue of preventing social dependencies (narcotic, alcohol, nicotine, TV, computer, game, food, etc.), which are proven to have highly detrimental effects on people's wellbeing, these effects known to well persist through time. The dramatic escalation in the rate and scale of the spread of the various forms of dependent behavior among children and adults signals the need for enhancing the professional preparation of future social pedagogues for the prevention of social dependencies. This adds relevance to the issue of searching for new models for the professional preparation of

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social pedagogues and reconsidering the content, means, and methods of the formation of professional competencies in them.

A special place in the preparation of social pedagogues for activity related to preventing social dependencies belongs to educational-cognitive barriers (ECB), which are linked with the functions of the subject of cognition and overcoming which is regarded as the means and the end result of learning. As scholar I.Ya. Glazkova justly points out, “the deliberate creation, prevention, or overcoming of barriers in learning is one of pedagogical objectives, while the barrier itself is a medium that facilitates the personal and professional development and self-actualization of the subjects of the educational process” (Glazkova, 2013). In this regard, it appears necessary to work out and implement in the educational process a system of barriers that would factor in the characteristics of the professional activity of social pedagogues and the degree of educational-cognitive preparedness of students. Knowledge about ECBs will help organize the interaction between the student and the teacher in such a way as to minimize the blocking impact of barriers and amplify their positive potential in the personal development of learners and activation of their educational-cognitive activity.

The purpose of this study is to develop a set of theoretical notions of ECBs in student learning and identify specific ECBs of future social pedagogues in their mastering the basics of social-pedagogical activity concerned with the prevention of social dependencies.

## 2. Materials and methods

The study's general theoretical-methodological basis for the design of the preparation of future social pedagogues for the prevention of social dependencies using ECBs is grounded in a number of psychological-pedagogical theories construing the cognitive barrier as a structural element of creative activity (G.A. Ball, B.M. Kedrov, M.A. M enchinskaya, and Ya.A. Ponomarev), a key element and essential characteristic of educational-cognitive activity (D.N. Bogoyavlenskaya, T.V. Kudryavtsev, A.M. Matyushkin, and R.Kh. Shakurov), and an indispensable part of educational activity (S.I. Vysotskaya, A.V. Korzhuev, A.M. Matyushkin, A.I. Pilipenko, A.A. Pinski, etc.). Important theoretical sources for the study are works which bring to light the interrelationship between cognitive difficulties, problem situations, and psychological-pedagogical outcomes of resolving them (M.M. Balashov, S.I. Vysotskaya, N.Yu. Postalyuk, etc.), as well as research on the issue of ECBs arising in the process of student learning (I.N. Belyanina, L.A. Gerashchenko, A.N. Loshchilov, N.V. Marakhovskaya, etc.). Of particular interest in the context of developing the theoretical foundations of ECB creation and clearance in preparing social pedagogues for the prevention of social dependencies are the concept of ECBs (Tyunnikov, 2001; Chernenko, 2000) whereby ECBs are considered within a system of goal-functional, content, structural, temporal, and instrumental design characteristics and the central tenets of an integrated approach to preventing social dependencies in teenagers (Vorob'eva et al., 2012; Maznichenko, Neskoromnykh, 2013).

The study was conducted within the Sociology and Pedagogy Department at Sochi State University between 2015 and 2016. It featured 125 students (future social pedagogues), some undertaking intramural and others extramural study.

To achieve the study's objectives, the authors utilized the following methods: theoretical analysis, modeling, exploring and generalizing a body of social-pedagogical experience, retrospective analysis of one's own pedagogical activity, involved prolonged observation, surveying by questionnaire, expert assessments, conversations, analysis of the products of activity, and analysis of documentation.

Resolving the objective of identifying dominating ECBs involved engaging a pool of experts (instructors in the Sociology and Pedagogy Department at Sochi State University, practical training supervisors, and secondary-school social pedagogues). The experts analyzed specific groups of educational situations created in the process of preparing students for the prevention of social dependencies and then established dominating ECBs for each group. The analysis of mass situations involving educational-cognitive student difficulties helped develop a typology of ECBs.

By analyzing the content of social-pedagogical activity related to the prevention of social dependencies and constructing relevant methodological schemes (social-pedagogical problem → characteristics of the object of the social-pedagogical problem → methodological scheme as a

variant of social-pedagogical activity on resolving the problem → methodological recommendations on the practical implementation of a methodological scheme), as well as factoring in the findings of the research by N.P. Ivanova (Ivanova, 2011) and L.A. Nikitina (Nikitina, 2010), the authors developed a whole array of educational situations for immersing the student in the professional field of prevention of social dependencies. All educational social-pedagogical situations were first ordered by social-pedagogical problems and areas of preventive activity and then – by their place in the professional preparation of future social pedagogues.

### 3. Discussion

In the theory and practice of learning, overcomeable difficulties linked with the functions of the subject of cognition are considered in direct association with the concept of “problem situations”. A problem situation is believed to have its origins in the emergence of a mental state of difficulty which the individual is aware of when, during the course of practical or cognitive activity, they come across some kind of an obstacle – and there arises a need to look for ways to overcome it. Construing a barrier as a factor of influence upon the learner is what forms the basis of barrier pedagogy (Gormin, 2004).

Yu.S. Tyunnikov suggests that “a barrier is to be viewed not as a problem but as difficulties arising in connection with a problem – or preceding a problem and giving rise to it” (Tyunnikov, 2013). According to A.N. Loshchilov, ECBs could be viewed as a didactic explication of a psychological-cognitive barrier the effectuation whereof stimulates the intellectual development of learners and leads to the activation of the emotional-volitional and motivational sphere of their personality (Loshchilov, 2004).

ECBs arising in the course of the professional preparation of future social pedagogues have to do with the specific characteristics of professional social-pedagogical activity. The major factor facilitating the emergence of this kind of cognitive barriers is the potential that the learner will be able to complete the assignment laid before them using a certain technique they know and based on knowledge they possess. Overcoming barriers that arise requires engaging in an active, transforming thinking activity.

The professional preparation of future social pedagogues for the prevention of social dependencies can be viewed as a specific object of pedagogical design, as the process and the result of implementing a particular system of ECBs, one governed by the following factors: the strategy and logic behind deploying social-pedagogical activity related to the prevention of social dependencies, the cognitive capacity and level of professional preparation of students, the characteristics of educational material, and the way ECBs are structured (grouped) in alignment with types of educational situations created.

The authors construe an educational situation as one of educational tension, one that encourages students to analyze, design, and forecast the mutual influence of the subjects and objects of social-pedagogical activity and causes in future social pedagogues a state of intellectual difficulty. A situation can be characterized as educational if the student marks off a problem that has arisen during the course of their social-pedagogical activity, takes relevant research steps in respect of that activity, and puts into effect educational actions leading to their “discovering” some kind of novel methodological knowledge or verifying a specific way of action.

Thus, the specificity of educational situations consists in the following: a future social pedagogue is put in a situation of where there is a complete (or partial) lack of knowledge as to what to do, a situation of uncertainty in terms of methodological activity related to the prevention of social dependencies in teenagers, and personally resolves it, which leads to changes in how and what the person does and some personal changes.

The modeling of the process of professional preparation of students for the prevention of social dependencies based on ECBs leans on a stage-by-stage logic grounded in: the pre-design (essence-related, functional, and content) analysis of the specificity of students’ educational-cognitive activity in the setting of higher learning; the formation of the design image of educational-cognitive activity through the instrumentality of its design components and characteristics; the systematization, selection, and structuring of ECBs as the basis for the modeling of the professional preparation of social pedagogues; the development of proper educational situations and didactic techniques for ECB creation and clearance.

Managed student ECB clearing in learning is construed as a pedagogical process predicated upon two-way interaction between the teacher and students and built upon certain research-and-methodology approaches aimed at remediating the misalignment of the Psychological and Pedagogical Education domain of preparation of bachelors and the actual degree of formation of learners' professional competencies with the requirements of the Federal State Education Standards for Higher Education imposed with regard to the preparation of students in colleges; fostering the development of one's intellectual, motivational, and volitional spheres; creating and resolving educational situations that cause ECBs; analyzing, assessing, and discussing in a joint manner the results of students' educational and professional activity.

The idea of deliberate ECB creation and clearance in the process of preparation of students for the prevention of social dependencies is predicated upon the principles of barrier pedagogy: dialogical interaction between the subjects of the educational process, a barrier's developmental potential, measuring out difficulties, the significance of barriers to the person and the degree of the person's awareness of them, the principle of reflecting on barriers, the decatastrophization principle, and the domination of a problem situation (Glazkova, 2013).

The effective management of the process of preparation of students for the prevention of social dependencies can be ensured through the use of specific didactic techniques for ECB creation and clearance. From a goal perspective, didactic techniques comport with the objective of modeling professional preparation for social-pedagogical activity related to the prevention of social dependencies, from a structural-logical one – with types of educational situations and types and kinds of problem situations utilized, and from a perspective of actualized cognitive contradictions – with mechanisms and ways of conducting educational-cognitive activity.

#### 4. Results

As a result of carrying out this study, the authors identified specific ECBs creating and overcoming which may facilitate positive changes in the cognitive, emotional-volitional, and motivational spheres of the personality of future social pedagogues, stimulate their intellectual development, and ensure their immersion in a constructed field of professional trials.

Let us take a look at some of the typical educational situations in the methodological preparation of students for the prevention of social dependencies and ECBs these situations are dominated by.

**Group 1: getting engaged in methodological activity on preventing social dependencies.** Educational situations within this group are intended to help change the student's stance in respect of educational activity – by facilitating the shift from the practice of perceiving methodological knowledge that is already available to that of making “discoveries” in the methodology of social-pedagogical activity. Such situations are characterized by the following:

*a change of reality* – the student's imagined switch from an audience, they are part of, to an educational or social facility, the informal institution of the street, the family of a teenager, and other types of space for the latter's activity and interpersonal communication;

*a change of roles* – the student assuming the role of a social pedagogue, pedagogue/psychologist, teacher, teenagers (those who are dependent, prone to dependency, at-risk, etc.), their parents (maintaining the child's social dependency, forbidding the teenager access to the object of social dependency, etc.) and engaging in discussing a social-pedagogical problem in accordance with the roles set up;

*actualizing a methodological technique* – drawing upon the student's experience and constructing a methodological technique in a pair or a micro-group;

*playing out a methodological technique* – demonstrating a methodological technique in front of an audience and having it discussed by “analysts”, “critics”, “experts”, as well as “social pedagogues”, “class masters”, “pedagogue/psychologists”, “social workers”, etc.;

*capturing difficulties* – defining difficulties arising in the process of resolving an educational situation, playing out a methodological technique, etc.; representing difficulties in graphic form; establishing the reasons behind difficulties;

*planning out steps for overcoming a difficulty* – constructing a way of getting out of a difficult situation (setting a goal, drawing upon a body of experience, analyzing the literature, comparing a number of proposed ways of overcoming the difficulty, providing a rationale for one's vision of a methodological technique, etc.).

The process of resolving Group 1 educational situations is dominated by the following **student ECBs**:

*barrier of distilling a situation out of a system*: the student has difficulty distilling some of the substantial attributes of an object (phenomenon) which most fully reflect its content (e.g., being unable to find the common in the psychological portraits of teenagers with computer and cellular-phone dependencies);

*barrier of logical unfolding of the process of resolving a situation*: the student knows certain fragments of the resolution process but is unable to link them logically;

*barrier of the choice of alternative means*: the student has difficulties in the choice of means and ways of action (e.g., having difficulty differentiating between the means of engaging a dependent teenager and an at-risk one in socially useful types of activity).

**Group 2: testing mastered methodological schemes and algorithms in activity related to the prevention of social dependencies.** The authors view a methodological scheme as a sequence of actions taken by a social pedagogue in resolving a social-pedagogical problem.

Educational situations within this group help future social pedagogues fill methodological schemes and algorithms of social-pedagogical activity they have mastered (or “discovered”) with content through the analysis of the components of a mastered methodological scheme, transformation of a known scheme of actions, choice of a way to implement a methodological scheme on practical material (under altered conditions), and analysis of an implemented methodological scheme. In resolving Group 2 educational situations, future social pedagogues get to apply knowledge they have received and reconstruct and adapt to a specific situation the body of experience of engaging in professional activity they possess. Such situations are characterized by the following:

*executive actions on a methodological scheme* – incorporating, with no changes, a methodological scheme into social-pedagogical activity (e.g., applying a demonstrated methodological technique under specific conditions);

*setting a new methodological (social-pedagogical) problem* – the student lacks some knowledge (psychological, pedagogical, legal, etc.) needed to perform certain actions based on a scheme and is unable to fill with specific content all of the steps in an algorithm, which leads to the detection of discrepancies between the intended design of a known methodological scheme and its actual implementation in practice and to the setting of a new methodological problem;

*multi-aspect look at trials of the operation of a methodological scheme in practice* – the student’s actions on implementing a methodological scheme are analyzed from the perspective of an analyst, critic, expert, or researcher;

*reflecting on trial actions on a methodological scheme* – posing questions (e.g., What worked out? What did not work out? What kind of difficulties did one have? What were the causes of those difficulties? What needs to be changed in one’s preparation for the conduct of social-pedagogical activity? What needs to be done to overcome the difficulties arisen?) and suggesting answers for them;

*transforming one’s trial of the implementation of a methodological scheme* – undertaking a repeat of the trial accompanied by going beyond the methodological scheme; correcting the scheme;

*correcting one’s professional-educational activity*: the student putting together and implementing a plan of independent work on enhancing one’s professional making.

The process of resolving Group 2 educational situations is dominated by the following **student ECBs**:

*barrier of a synthesis of methods in resolving a problem* – the student, armed with a roster of particular methods or techniques, has difficulty resolving a problem that requires the combined use of some of those methods or techniques (Akindinov, Dudulin, & Semizorov, 2009);

*barrier of planning out one’s activity as per a methodological scheme* – the student has difficulty performing actions in the proper sequence and with the right correlation of intervening steps in the operations;

*barrier of forecasting one’s activity* – the student is unable to come up with ways to resolve problems and determine possible intervening and end results;

*barrier of transforming a known methodological scheme* – the student is unable to

transform a methodological scheme in accordance with specific conditions, correct their actions in accordance with their subjective characteristics, conduct a search for information that is missing, and generalize knowledge; cannot see in their practical activity the disparities and overlaps with a known methodological scheme;

*structural match barrier* – the student is unable to identify the characteristics of the object of activity, determine causal, functional, and other linkages between objects, and establish a match between the object and the way of action;

*barrier of transfer of knowledge into a new situation* – the student is unable to transfer the conceptual content of one situation into different conditions and has difficulty putting together particular problems and generalizing knowledge;

*barrier of search for missing information* – the student has difficulty identifying the attributes, properties, and functions of an object, grouping information, and identifying missing information;

*barrier of comporting with practice* – the student has difficulty applying knowledge in practice and constructing a system of particular social-pedagogical problems.

**Group 3: “discovering” methodological knowledge.** Educational situations within this group help future social pedagogues initiate a research quest for novel techniques, ways, and means of prevention. Such situations are characterized by the following:

*students drawing upon their own experience of social-pedagogical activity* – reflecting on one’s activity on preventing social dependencies;

*teaming up with other participants in the search for ways of resolving a difficulty* – discussing a methodological problem and looking for a “discovery” in company with one’s fellow students;

*executing the research steps* – analyzing alternatives proposed, selecting and providing a rationale for a solution (a way to overcome a difficulty), and testing a newly constructed methodological scheme.

The process of resolving Group 3 educational situations is dominated by the following **student ECBs**:

*“rolled-up brainwork” barrier* – the student is unable to unfold the course of their reasoning which led them to a paradoxical result; unable to present it as a sequence of elementary “steps” and “operations” linked by logic (Akudinov et al., 2009);

*solution localization barrier* – the student is unable to determine the boundaries (conditions) for the application of a known methodological scheme or a solution to the educational situation;

*large distance barrier* – the student is unable to distill common attributes between different situations;

*activity self-analysis barrier* – the student has difficulty capturing a disparity or an overlap, evaluating the process and result of their activity, making changes to that activity, and correcting the means and methods of conducting it.

The types of ECBs identified and described as part of this research study helped put together a diagnostic program for identifying ECBs, as subjective sensemaking obstacles for students, that occur most commonly in the preparation of social pedagogues and working out relevant methodological recommendations for instructors. For each type of ECBs, the authors described specific ways of overcoming them.

## 5. Conclusion

A peculiarity of this study is that in it the process of preparation of future social pedagogues for the prevention of social dependencies is viewed and designed as the process and result of utilizing a certain system of ECBs. The study describes specific types of relevant educational situations and identifies dominating ECBs, which are detailed from a goal, information-content, and operation-activity perspective. The system of ECBs, which incorporates student activity on overcoming these barriers, forms a technologized learning space for preparing future social pedagogues for the prevention of social dependencies through fostering barrier competence in the subjects of the educational process.

Theoretical notions of ECBs could become the basis for the study of mechanisms related to overcoming such barriers in the process of professional preparation of social pedagogues.

## References

- Akindinov et al., 2009** – Akindinov, A.A., Dudulin, V.V., Semizorov, N.I. (2009). Poznavatel'nye bar'ery v vuzovskoi podgotovke spetsialistov [Cognitive barriers in the college preparation of specialists]. *Izvestiya Instituta Inzhenernoi Fiziki*, 3(13), 80–82. [in Russian].
- Chernenko, 2000** – Chernenko, N.V. (2000). *Proektirovanie uchebno-poznavatel'noi deyatel'nosti mladshikh shkol'nikov s ispol'zovaniem uchebno-poznavatel'nykh bar'erov* [Designing the educational-cognitive activity of junior school students using educational-cognitive barriers] (p. 18). (Unpublished doctoral dissertation). Sochi State University, Sochi, Russia. [in Russian].
- Glazkova, 2013** – Glazkova, I.Ya. (2013). Kategorial'nyi apparat bar'erno pedagogiki [The categorial apparatus of barrier pedagogy]. *Nauchnye Vedomosti Belgorodskogo Gosudarstvennogo Universiteta. Seriya: Gumanitarnye Nauki*, 19(20), 189–194. [in Russian].
- Gormin, 2004** – Gormin, A.S. (2004). *Obuchenie i vospitanie odarennykh podrostkov v paradigme bar'erno pedagogiki* [Teaching and educating gifted teenagers within the paradigm of barrier pedagogy] (p. 44). (Unpublished doctoral dissertation). Yaroslav-the-Wise Novgorod State University, Veliky Novgorod, Russia. [in Russian].
- Ivanova, 2011** – Ivanova, N.P. (2011). *Podgotovka studentov pedagogicheskogo vuza k razresheniyu sotsial'no-pedagogicheskikh situatsii (na materiale professional'noi podgotovki sotsial'nykh pedagogov)* [Preparation of students at pedagogical colleges for resolving social-pedagogical situations (based on material related to the professional preparation of social pedagogues)] (Unpublished doctoral dissertation). Udmurt State University, Izhevsk, Russia. [in Russian].
- Loshchilov, 2004** – Loshchilov, A.N. (2004). *Avtomatizatsiya obshchemetodicheskoi podgotovki budushchego uchitelya matematiki i informatiki s oporoi na uchebno-poznavatel'nyi bar'er* [Automating the general methodological preparation of future mathematics and computer science instructors with a foundation of educational-cognitive barriers] (p. 22). (Unpublished doctoral dissertation). Sochi State University, Sochi, Russia. [in Russian].
- Maznichenko, Neskromnykh, 2013** – Maznichenko, M.A., Neskromnykh, N.I. (2013). Adolescents' Social Dependences as the Feature of Complex Educational Prevention. *European Journal of Contemporary Education*, 5(3), 148–161.
- Nikitina, 2010** – Nikitina, L.A. (2010). Obrazovatel'nye situatsii v metodicheskoi podgotovke kak sredstvo stanovleniya issledovatel'skoi kompetentnosti pedagogov [Educational situations in methodological preparation as a means of fostering pedagogues' research competence]. *Obrazovanie i Nauka*, 5, 15–24. [in Russian].
- Tyunnikov, 2001** – Tyunnikov, Yu.S. (2001). Tekhnologiya uchebno-poznavatel'nykh bar'erov kak sostavnaya chast' podgotovki k stazherskoi praktike po sisteme razvivayushchego obucheniya D.B. El'konina–V.V. Davydova. V knige Yu.S. Tyunnikova, N.V. Chernenko i S.V. Vorob'evoi *Pedagogicheskaya praktika studentov v svete sovremennykh psikhologo-pedagogicheskikh trebovaniy: Sbornik nauchno-metodicheskikh statei* [The technology of educational-cognitive barriers as a component in preparing for practical training using the system of developmental learning of D.B. El'konin and V.V. Davydov. In Yu.S. Tyunnikov, N.V. Chernenko, S.V. Vorob'eva (Eds.), *Students' teaching practice in light of present-day psychological-pedagogical requirements: A collection of research and methodology articles*] (pp. 8–25). Sochi, Russia: RKTs SGUTiKD. [in Russian].
- Tyunnikov, 2013** – Tyunnikov, Yu.S. (2013). Kategorial'noe yadro stsenarnogo podkhoda k postroeniyu obrazovatel'nykh programm DPO [The categorial kernel of a scenario approach to constructing CPE programs]. *Izvestiya Sochinskogo Gosudarstvennogo Universiteta*, 1(23), 121–131. [in Russian].
- Vorob'eva et al., 2012** – Vorob'eva, S.V., Maznichenko, M.A., Neskromnykh, N.I. (2012). Kompleksnyi podkhod k profilaktike sotsial'nykh zavisimostei v podrostkovoi srede: Monografiya [An integrated approach to preventing social dependencies in the teenage environment: A monograph] (306 p.). Sochi, Russia: RITs SGU. [in Russian].