206

INTEREST OF THE PRE-SERVICE TEACHERS IN THE ALCOHOL-RELATED ISSUES

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Abstract

A typical didactic problem associated with teaching the discipline "Health, Safety, and Fundamentals of Occupational Safety" is the low level of student interest in the content of the educational material. The purpose of the study was a critical comprehension of the results of using narratives about alcohol phenomena in the process of studying a specific topic of this discipline by students of a pedagogical higher education institution. Two hundred and forty-six first-year students of Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University took part in the experiment. The data collection tool was a questionnaire that contained eight questions about alcohol phenomena. The level of students' interest in the educational material at the beginning and at the end of the academic year was assessed to determine the reliability of the shift in its features in the experimental and control groups. The significance of the shift in the values of cognitive interest indicators for students of the experimental and control groups was assessed using the G-sign test. The theoretical framework covered the integration of psychological and medical knowledge around the process of forming alcohol addiction. According to the results of the study, the experimental group showed an increase in cognitive interest in the new content of the educational material. The results of the study may be of international importance if they are used to educate students to consciously choose their own range of acceptable alcohol consumption.

Keywords: alcohol-related phenomena, cognitive interest, integrated approach, narrative approach, safe behavior

Introduction

In Ukraine, the educational and professional core curricula of the bachelor's level of higher education include the "Health, Safety, and Fundamentals of Occupational Safety" academic discipline. It was first introduced in the curriculum in 1995 as the "Health and Safety" course (Poveda, 2017). In 2014, the initial course title was changed to "Health, Safety, and Fundamentals of Occupational Safety." The course content was developed on the basis of the integrated approach in the form of interdisciplinary connections. Integration encompassed various branches of knowledge, namely, philosophy, natural sciences, engineering, mathematics, psychology and pedagogy, sociology, law, medicine, ecology, biology, economy, etc. Comprehensive integration of the various topics into the course content is characteristic of the "Health, Safety, and Fundamentals of Occupational Safety" academic discipline. This uniqueness is not only an advantage but also a disadvantage, as it produces yet unresolved contradictions concerning the content of the course.

By 2011, the Ministry of Education and Science of Ukraine adopted three editions of the standard course content for the "Health and Safety" discipline. The content for the course was

selected from the various branches of knowledge; it was structured in accordance with the basic narrative "Emergency management." However, this basic narrative proved to be ineffective for the students of higher educational institutions, as it did not correspond to the functional duties of the teachers of the general secondary education institutions of Ukraine. Moreover, this subject is not in the Ukrainian school curriculum. As a result, the course content of the discipline does not appeal to the pre-service teachers; the most common stimulus to learn it was receiving high grades that enable winning a scholarship.

In 2014, the higher-educational institutions of Ukraine were granted a right to compile their own syllabuses for the "Health, Safety, and Fundamentals of Occupational Safety" discipline on the basis of the existing ones. This enabled the transformations of the current basic narrative of the course to the "Health and Safety Culture" in compliance with the functional duties of the teachers (Hvozdii, 2016). The change in the basic narrative made it possible to use the competence approach in the educational process, which is aimed at the development of safe behavior patterns in the pre-service teachers (Maksymova, 2006). Personal traits of the pre-service teachers should correspond to the components of the commitment to developing healthy and safe behavior in schoolchildren. Hence, the paradigm of emergency prevention and management changed to the personal development of the pre-service teacher (Hvozdii, 2016). Still, the integration of the learning material from the various branches of knowledge did not have scientific justification, while the choice of the course content was guided mainly by the paradigm of students' personal development, basic narrative "Health and Safety Culture," experts' conclusions, and recommendations of the textbooks' authors.

The eight-year practice of teaching "Health, Safety, and Fundamentals of Occupational Safety" to the pre-service teachers proves that the lack of consistency in the choice of learning material discourages the majority of students to study this discipline. Thus, it may be stated that the process of developing the course content for this discipline is still ongoing; also, the objective of finding the criteria for the selection of this material from the different branches of knowledge is yet to be met.

The diverse integration of knowledge from the various branches of science and humanities allowed selecting the facts that stimulate students' situational interest. The process of developing the situational interest in the information from the various branches of knowledge requires a separate study, as the emotional and intellectual components of interest, for instance, in engineering, differ from those in psychology. I. e., engineering and technical knowledge often are presented as the descriptions of morphology or descriptions of the principles of operation of technical objects, without the direct manifestations of emotions, while the psychological study of human behavior often evokes an emotional response from most of the students. The use of human behavioral patterns in unveiling the core of social and psychological hazards was chosen as the main direction of this study. It will ensure an in-depth approach to the formation of the course content for the "Health, Safety, and Fundamentals of Occupational Safety" discipline by the use of an interdisciplinary approach with the humanities in the training of the pre-service teachers.

The current learning material on the topic of alcohol-related issues for the "Health and Safety" discipline was selected in the context of the anti-alcohol campaign; it corresponds to the concept of a healthy lifestyle and illustrates the consequences of alcohol consumption. Its main narratives are "Harmful effects of alcohol consumption on the human body" and "Consequences of alcohol abuse" (Berezutskyi et. al., 2005; Biehun & Naumenko, 2004; Dzhyhyrei, & Zhydetskyi, 2001; Lapin, 2007; Levchenko et. al., 2019; Skoblo et. al., 2003; Yakym, 2005; Zerkalov, 2011; Zerkalov et. al., 2013; Zhelibo et. al., 2001). The content of the textbooks often has logical contradictions, for example, one textbook lists the nutritional values of wine as a food product and a pharmacological agent directly after the anti-alcohol narrative (Pistun, 1999). Still, in the historical perspective (e.g., with regard to the 1988 Soviet

anti-alcohol propaganda campaign) and in the practice of teaching this discipline, successful and effective instances of such campaigning are scarce. The main cause of the ineffectiveness of standardized anti-alcohol campaigning is its lack of connection to real people's lives. This results in the simplified approaches to the study of alcohol-related phenomena, when cultural, social, psychological, biological, economic, and other aspects are ignored.

On the contrary, it would be constructive to stimulate the interest of the pedagogical university students in alcohol-related issues in order to study alcohol-related phenomena as applied to a single individual. It will allow considering the phenomena of human psychology, the mechanisms of decision-making processes in the situations of involvement in alcohol abuse, and the mindset toward the episodes of alcohol abuse. For example, at the level of a single individual, the valuable learning material would include knowledge about the human psychological defense mechanism, used by people with alcohol addiction and other health conditions (Havrylkevych, 2019; Maksymova, 2006; Zinchenko, 2014). Inconsistency in the individual's perception of oneself and in the opinions of others triggers psychological defense mechanisms (Zinchenko, 2014). As a result, individuals with alcohol addiction do not reflect on their own behavior, they cannot control the potentially dangerous factors of developing an alcohol addiction - the quantity of alcohol consumed and the frequency of alcohol consumption episodes (Ivanchuk, 2021; Ritchie & Roser 2018). The expediency of using the approach of social norms to form students' understanding of the range of acceptability of alcohol consumption was studied (McAlaney et. al., 2015). The educational function of the correct attitude towards alcohol consumption was analysed (Haug et. al., 2011). The possibility of changing the misperception of young people about the dangerous factors of alcohol addiction was studied (Moreira et. al., 2009).

Thus, the course content of the "Health, Safety, and Fundamentals of Occupational Safety" offered to replace the traditional anti-alcohol propaganda with anti-alcohol campaigning based on the concept of cultural competence (Ritchie & Roser, 2018; Sulkunen, 1987), focusing on the alcohol-related phenomena instead (Ivanchuk, 2022).

Research Problem

The primary obstacle in stimulating the students' interest in the course content is its irrelevancy to the everyday life (Kurt, 2021; Holbrook & Rannikmae, 2007). It is common knowledge that the facts not related to the students' everyday life are perceived by them as irrelevant and the learning material – as the facts used only in the educational process and inapplicable to daily life (Jenkins & Nelson, 2005; Ng & Nguyen, 2006; Songer & Linn, 1991). Thus, it was suggested to use the concept of relevance, taking into account the concept of practical knowledge (Danyliak, 2012; Putnam, & Borko, 2000), the interdisciplinary didactic principle (Buriak, 1984), and the concept of uniting the understanding of the subject matter and the activities in one process (Dewey, 1913).

Existing textbooks on "Health and Safety" for the students of the higher educational institutions of Ukraine do not include descriptions of psychological and social alcohol-related phenomena. As an exception, the facts about alcohol-related phenomena are mentioned but without revealing their essence and significance for human health and safety. E.g., the fact that the alcohol abusers do not acknowledge the risk of developing an alcohol addiction and existence of the alcohol-related problems (Zhelibo et. al., 2001).

Situational interest, for example, in alcohol consumption reaches the level of individual interest due to the emergence of the positive attitude to drinking that alters the person's life, promoting alcohol dependency to the status of basic needs (Hidi & Renninger, 2006; Savchuk, 2006; Tabachnyk, 2015). The psychological defense mechanisms sustain a lasting positive attitude to alcohol (Savchuk, 2006). Functioning as a defense for the Self-concept, these

mechanisms impede any changes to the positive attitude to alcohol (Zinchenko, 2014). If the alcohol addiction is not yet formed, all psychological defense mechanisms function to protect the Self. In the case of developed alcohol addiction, the mechanism of denial prevails (Savchuk, 2006).

Still, the analyzed body of literature lacks the outline of the use of psychological knowledge for the course content of the "Health, Safety, and Fundamentals of Occupational Safety" discipline; therefore, any new study on the subject may produce new approaches (Harbarchuk, 2004). The understanding of the practical value of certain psychological and medical concepts by the pre-service teachers could be a systemic and formative factor for the commitment to preventing alcohol addiction. The critical evaluation of one's own alcohol-related behavior and objective opinion about the alcohol behavior of the members of the immediate small group contribute to lowering the risk of the development of alcohol dependency. Those involved in random episodes of alcohol abuse would be committed to correcting their behavior, lowering the amount and frequency of its use (Ritchie & Roser, 2018). With such an approach to anti-alcohol campaigning, the students are not threatened with the consequences of drinking, while a favorable environment for their personal growth is created instead. Hence, competent individuals would make weighted decisions regarding their personal range of acceptable alcohol consumption (Levine & Marcus, 2010; Ritchie & Roser, 2018). The new paradigm of anti-alcohol campaigning would contribute to making a life choice in favor of maintaining good health and quality of life (Sheremet, 2011).

Any mentally competent person is a natural cybernetic system (Harbarchuk, 2004). By analogy with the cybernetic system, it has a managing agent and a managed object. The managing agent automatically regulates the parameters of the managed object's functioning. In this study, the alcohol-related phenomena were viewed in the context of the principle of operation of a natural cybernetic system, where the psychological defense mechanisms act as an automatic regulator, the Self-concept as a managed object, and a personal conflict serves as a trigger (Ivanchuk, 2022). The essence of automatic regulation is in the minimization of the personal conflict or its elimination "in autopilot mode" (Harbarchuk, 2004). Functionally, the "autopilot mode" is similar to the dynamic alcohol stereotype of an addicted person (Maksymova, 2006). Therefore, the use of the cybernetic approach would facilitate the integration of psychological and medical concepts into the course content of the "Health and Safety" discipline (Ivanchuk, 2022).

The discrepancy between the increase of the range of the acceptable (quantities of alcohol consumed and frequency of alcohol episodes) and a passive mindset aimed at alcohol consumption (though the dependency may not yet be formed) results in a personal conflict (Burmaka, 2003). In the case of alcohol abuse, the personal conflict may be partially conscious and behavior tends to be regulated towards limiting the range of the acceptable; here the automatic regulator (subconscious psychological defense) of the Self-concept is activated. Instead, with alcohol addiction, the personal conflict stirs the negative modality of emotions and is eliminated without being registered and acknowledged by the automatic regulator – the psychological defense mechanisms (Ritchie & Roser, 2018; Burmaka, 2003).

Revealing the sense of alcohol-related phenomena to the students of the pedagogical higher educational institutions of Ukraine is aimed at demonstrating the practical significance of knowledge about these phenomena in various real-life situations (Palachanina, 2009; Songer & Linn, 1991). While the first-year students lack specific psychological and medical knowledge, the choice of cybernetic approach and narratives as the didactic means is justified, as they facilitate understanding of the essense and possible application of this knowledge. Thus, the ineffective anti-alcohol campaigning, rooted in intimidation with dire consequences, was transformed into an alternative campaigning for students' personal development while studying the "Health, Safety, and Fundamentals of Occupational Safety" discipline.

Anatolii IVANCHUK, Tetiana ZUZIAK, Oksana MARUSHCHAK, Viktor SOLOVEI, Iryna KRASYLNYKOVA, Vitalii HLUKHANIUK, Viktor KRUPKA. Interest of the pre-service teachers in the alcohol-related issues

PROBLEMS
OF EDUCATION
IN THE 21st CENTURY
Vol. 81, No. 2, 2023
210

Research Focus

The research focused on the realization of the relevance concept in the course content of the specific topic within the "Health, Safety, and Fundamentals of Occupational Safety" discipline.

Research Aim

The aim of the research was to critically rethink the results of the use of the narratives about alcohol-related phenomena in the process of learning a topic within the "Health, Safety, and Fundamentals of Occupational Safety" discipline. The objectives of the research were to choose the criteria for the development of the students' interest in the new learning material and the indicators of the levels of this interest; to develop the main lines of the narratives about the alcohol-related phenomena; to experimentally verify the effectiveness of these narratives in the actual learning process of the Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University.

Research Methodology

General Background

The structure of the process of pedagogical research included ascertaining, formative, and control stages. At the ascertaining stage, the students' level of interest in the study of alcohol-related issues was established. At the formative stage, the narratives about alcohol-related phenomena were developed and implemented. For the development of the narratives about psychological defense mechanisms, the cybernetic approach was used (Harbarchuk, 2004). At the control stage, the levels of interest in the alcohol-related issues were compared in the experimental and control groups. A pedagogical experiment was implemented in the process of teaching the "Health, Safety, and Fundamentals of Occupational Safety" to the bachelor students in the Mykhailo Kotsiubynskyi State Pedagogical University (Vinnytsia, Ukraine) during three academic years (2018–2021).

Sample

246 first-year students participated in the pedagogical experiment. Among them, 148 (60%) were female, 98 (40%) were male, and the average age of women and men was 17. Three series of pedagogical experiments were conducted (with each series lasting for one academic year), and the body of experimental data was processed with the use of the methods of mathematical statistics in 2022. In order for the conditions of each series of pedagogical experiments to be equal, the following techniques were used: equal selection of students (of the Valentyna Voloshyna Faculty of Pre-School and Primary Education and the Faculty of History); permanent teacher (Associate Professor A. Ivanchuk), similar choice of learning material about alcohol-related issues, the same topic for self-study; equal requirements for the presentation of the self-study results. The scope of the study was limited to the number of respondents for the G-sign criterion to a range from 5 to 300 (Volovyk, 1969). The study takes into account the requirements of the Code of Ethics for Social Work Specialists of Ukraine (Etychnyi kodeks spetsialista iz sotsialnoi roboty Ukrainy, 2005).

Instrument and Procedures

In order to determine the level of actual interest in the alcoholism related problems in the first-year students while studying "Health, Safety, and Fundamentals of Occupational Safety"

discipline, the ordinal scale offered by A. Kyveryalg and presented in Table 1 was used (Hidi & Renninger, 2006; Kyveryalg, 1980). The reliability of the ordinal scale is justified by the development of human interests based on the conditioned reflex of the second signal system (Kyveryalg, 1980).

Table1 *Levels of Cognitive Interest*

Indicators	Indicators' levels							
	Strong (+)	Medium (-)	Low (0)					
1. Cognitive activity	Active, strong	Requires an external stimulus	Inert, no interest					
2. Interest	In revealing the core of the phenomena	In the facts and their descriptions	Occasional					
3. Motivation	Intrinsic	Requires constant stimulation	Extrinsic					
Extracurricular engagement	Constant engagement	Occasional engagement	No engagement					
5. Difficulties	Attempts to overcome	Occasional attempts to overcome	No attempts to overcome					

The alcohol-related phenomena covered in the course were selected in accordance with the basic narrative "Alcohol phenomena." Students self-evaluated their personal interest in the basic notion of "alcohol addiction" and additional concepts: "alcohol-related traditions and customs," "pharmacology of alcohol," "alcohol as the means of social interaction," "small group," "range of acceptable alcohol consumption," "psychological defense mechanisms," and "alcohol withdrawal syndrome." The obtained data are presented in Table 2.

Table 2Students' Interest in the Concept of "Alcohol Addiction" (a Fragment)

First name,	me,				ln t	In the alcohol-related traditions and customs					In the pharmacology of alcohol							
second					Indicators					Indicators								
name	1	2	3	4	5	Total	1	2	3	4	5	Total	1	2	3	4	5	Total
	-	0	+	+	+	+2	-	-	0	+	-	-2	0	+	+	-	-	0
	0	0	-	+	0	0	+	+	+	0	+	+4	-	-	0	-	0	-3
Total																		

The correspondence of the students' self-evaluation results about the interest in alcohol-related issues to a certain level of cognitive interest was assessed on the interval scale presented in Table 3 (Havryshchak & Poniatyshyn, 2006).

Table 3Levels of Students' Cognitive Interest in the Alcoholism Related Problems

	Level of cognitive interest								
Students' interest	Strong	Medium, with active interest prevailing	Medium, with passive interest prevailing	Low -35					
_	+3 +5	+2 0	02						
In the alcohol addiction									
In the alcohol-related traditions and customs									
In the pharmacology of alcohol									

At the formative stage of the pedagogical experiment, the information about the alcohol phenomena was used as an independent variable. The working hypothesis was the following: "The level of students' interest in studying alcohol-related issues would rise if the learning material about the alcohol phenomena is presented in the form of narratives." The students were not informed about their participation in the pedagogical experiment, and the learning material for the topic "Socio-psychological hazards for health and safety" was in compliance with the curriculum of the "Health, Safety, and Fundamentals of Occupational Safety" discipline only for the students of the control group. The levels of students' knowledge and skills in the experimental and control groups were evaluated with the methods, familiar to them. In the control groups, standardized methodological guidelines for the practical classes were used. In the experimental groups, the narratives about the meanings of human behavior were used during the lectures; the practical classes included solving the alcohol-related problems about the alcohol-related phenomena in the situation of binge drinking, when alcohol addiction is not yet formed (Ivanchuk, 2020; 2021; 2022). Solving the problem assignments, the students discovered for themselves the psychological senses of small-group behavior with various psychological defense mechanisms; the solutions were formulated as narratives.

For the development of the narrative topics, the following cognitive map was used: problem statement \rightarrow revealing the underlying senses \rightarrow conclusions. For instance, the sub-narratives of the basic narrative "The types of alcohol groups" revealed the essence of such medical notions as "moderate drinking," "systematic drinking," "casual drinking" (Ivanchuk, 2020; Maksymova, 2006).

Examples of typical narratives are the following. Narrative 1. Problem statement. After the graduation ceremony, the students decided to celebrate in a restaurant. However, some objected. Revealing the senses. It is unknown, whether the family members of those in this small group have an alcohol addiction. The problem statement suggests that the graduates planned the celebration to share their joy about receiving a diploma, with alcohol playing a supportive role and reinforcing the euphoria. Conclusion. This small group falls into the category of "moderate drinking." The behavior of the group members is relatively safe and there is practically no risk of developing alcohol addiction.

Narrative 2. Problem statement. The small group members are the managers of the construction company. They have a tradition of going to the sauna every Friday, with inescapable drinking of several bottles of red wine. Revealing the senses. It is unknown if any of the members of the small group have family members with alcohol addiction. The problem statement suggests friendly relations between the members of the group; their common goal is

collective relaxation. Conclusion. The tradition of regular visits to the sauna and consumption of several bottles of red wine prove this to be a small alcohol group. The description lacks information about the fines from the administration of the company; most probably, this group falls into the category of "systematic drinking." Being in this group is semi-safe. There is a small risk of developing an alcohol addiction, as the need for alcohol has been already formed.

Narrative 3. Problem statement. The members of a small group discuss their recent alcohol episode. Most of the participants do not remember the occasion for drinking. Still, one of the group members recalls meeting a friend with a bottle of vodka. He explained the fact of having vodka with him in the following manner, "I was passing by the store and thought that all right, I will buy one bottle just in case." Revealing the senses. It is unknown, whether the family members of those in this small group have an alcohol addiction. Conclusion. The problem statement suggests that almost no one can recreate the fact of automatic, "just in case," purchase of vodka and that all group members had the compulsion to drink it. Hence, the alcohol dependency in all the members of this small group is manifested in the form of "habitual drinking." Staying in this small group is dangerous, as the risk of developing of alcohol addiction is high.

At the control stage of the pedagogical experiment, the scale of the shift was assessed, indicating the cognitive interest of the students of the experimental and control groups with the use of indicators' G-criterion of signs (Kyveryalg, 1980). The content was covered by both control and experimental groups. The content of the control test was the same for the experimental and control groups. The time required to complete the control test was 45 minutes. Accordingly, at the end of the academic year, the individual shift was determined for each student in the categories: no shift in the indicators (0); an increase in the indicators (+); a decrease in the indicators (-). The results with the negative shift in the indicators (0) were omitted in the subsequent calculations. According to the prevailing (+) or (-) respectively, the typical and atypical shifts were established. With the number of atypical shifts, the experimental value of the G_c criterion of signs was identified. In order to verify the validity of the typical shift in the indicators of the students' cognitive interest, two hypotheses were used: H_0 – prevalence of the typical shift in the indicators of students' cognitive interest is random; H_1 – prevalence of the typical shift in the indicators of students' cognitive interest is not random.

Data Analysis

The data were collected for three academic years. The general volume of the database of the pedagogical experiment constituted 1/9 of the overall number of the first-year students of the Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University. The nature of students' interest in the alcohol-related issues was measured according to three indicators at the beginning and at the end of the academic year. Qualitative indicators were converted into quantitative ones using the interval scale. The nature of the shift in the students' interest was determined for each pair of measurements using the G-criterion of signs. The sequence of calculation of the G sign criterion was the following: we eliminated the number of zero reactions from further calculations; the number of typical shifts; the Ge criterion; the table value of Gc (Volovyk, 1969) and compared it to Ge. The shift in the levels of students' interest was validated with two statistical hypotheses: null and alternative. Error probability did not exceed 5 %.

Research Results

The results of the evaluation of the cognitive interest of the first-year students of Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University at the beginning of the academic year are presented in Tables 4 and 5.

Table 4

Levels of Cognitive Interest in the Alcoholism Related Problems of the Students of the Valentyna Voloshyna Faculty of Pre-School and Primary Education

TI	ne number of students according to	the levels of cognitive interest	, %
Strong	Medium, with active interest prevailing	Medium, with passive interest prevailing	Low
15	22	31	32

Table 5Levels of Cognitive Interest in the Alcoholism Related Problems of the Students of the Faculty of History

ТІ	ne number of students according to	the levels of cognitive interest	, %
Strong	Medium, with active interest prevailing	Medium, with passive interest prevailing	Low
12	19	33	36

Tables 4 and 5 prove that among the students of the Valentyna Voloshyna Faculty of Pre-School and Primary Education and the students of the Faculty of History, low and medium levels are typical, with the passive level of cognitive interest in the alcohol-related phenomena prevailing, 63 % and 69 % accordingly. The most interest was expressed in the concepts most relevant to the students' everyday experience: alcohol-related traditions and customs, pharmacology of alcohol, alcohol as the means of social interaction, and the range of acceptable alcohol consumption. Psychological and medical concepts, due to the lack of basic knowledge in these areas among the first-year students, were of mild interest to them. Based on the results of the ascertaining stage of the pedagogical experiment, the experimental group was comprised of the students of the Voloshyna Faculty of Pre-school and Primary Education, while the students of the Faculty of History formed the control group.

The results of the evaluation of the shift in the indicators of the cognitive interest in experimental and control groups are presented in Table 6.

Table 6Shift in the Indicators of the Cognitive Interest in the Alcoholism Related Problems in Experimental and Control Groups

	Т	he nur	nber of	student	s acco	rding to	the leve	els of co	gnitive i	nterest,	perso	ns	
Group		Strong			Medium, with active interest prevailing			Medium, with passive interest prevailing			Low		
					Shift		Shift			Shift			
	+	-	0	+	-	0	+	-	0	+	-	0	
Experimental			19	18	2	8	20	9	10	21		19	
Control	-	6	8	4	9	10	6	14	22	8		35	

Anatolii IVANCHUK, Tetiana ZUZIAK, Oksana MARUSHCHAK, Viktor SOLOVEI, Iryna KRASYLNYKOVA, Vitalii HLUKHANIUK, Viktor KRUPKA. Interest of the pre-service teachers in the alcohol-related issues

PROBLEMS
OF EDUCATION
IN THE 21st CENTURY
Vol. 81, No. 2, 2023

The rise of the indicators of the cognitive interest of the students in the experimental group is probably linked to the factor of the new learning material on the topic "Socio-psychological hazards for health and safety." The attitude to self-study of the students from the experimental group differed. I. e., given the freedom to choose the topics for the essays, they preferred the themes about revealing the core of various types of addictive behavior; in addition, they were considerably more active in presenting the results of their self-study and in the discussions at the practical classes.

The results of the calculation of the G-criterion of signs are listed in Table 7.

Table 7 *Calculation of G-criterion*

Group	Quantity (+)	Quality (+) (-)	Quality (+) 0	G experimental	Number of students without the zero shift, persons	G critical
Experimental	59	11	46	11	80	32
Control	18	29	75	18	45	16

The condition $G_c \leq G_c$ was fulfilled for the experimental group, with no proof for the hypothesis H_0 (Kyveryalg, 1980). Hence, the rise of the level of the students' interest in alcohol-related issues is credibly proven. For the control group $G_c > G_c$, hence, the hypothesis H_0 was not confirmed. Thus, the control group did not demonstrate a significant change in the level of students' cognitive interest.

Discussion

The study was conducted in order to observe the nature of the shift in the interest of the first-year students of the Vinnytsia Mykhailo Kotsiubynskyi State Pedagogical University into the concept of the "Health, Safety, and Fundamentals of Occupational Safety" discipline. The data were obtained from the open questionnaires distributed to the students of the Valentyna Voloshyna Faculty of Pre-School and Primary Education and to the students of the Faculty of History. The first question of the open questionnaire was about the relevance of the concept of "alcohol dependency" to the students. At the formative and control stages of the pedagogical experiment, the answers were similar in the two faculties. For instance, the Valentyna Voloshyna Faculty of Pre-School and Primary Education showed one-third more positive answers than the Faculty of History; still, at both faculties, the initial interest was rather low. This result may be explained, on the one hand, with the irrelevancy of this concept to the students (mostly 17-years old girls); on the other hand, with this concept being rooted in the medical context. The fundamental understanding of medical issues is yet to be developed in the age group of the first-year students. This corresponds to the conclusions of the previous studies, which reported that understanding the meaning of the concept is the main pedagogical condition for initiating students' interest (Bondar & Makarenko, 2014).

The second item of the questionnaire was about the students' interest in the casual alcohol culture, customs, and traditions; the students were offered to respond if they wanted to learn more about these customs. This item had the most positive responses from both faculties of the university because it is relevant to the students and is in accord with their life experiences. Therefore, this supports the conclusion that the relevance and value of the learning material for the students depend on the students' personal background (Karagölge & Ceyhun, 2002; Seçken et al., 1998).

The third item of the open questionnaire specified the interest in the pharmacology of alcohol and inquired if the students wanted further information on this subject. The students of both faculties responded positively to this item, with the students of the Faculty of History being slightly more interested. The result illustrated the relevance of the problem and its probable correspondence to the students' personal experiences. In the body of literature examined, the students' attitude to the pharmacology of alcohol was not addressed; it can be thus suggested that students' interest in alcohol-related issues is grounded in the desire to experience inebriation, new to them.

The fourth item of the open questionnaire inquired about the interest in alcohol as a means of social interaction. This was the last item with predominantly affirmative responses both at the ascertaining and control stages of the pedagogical experiment, which proves it to be relevant to the students. Previous studies failed to address the students' attitude to alcohol as a means of social interaction, consequently, it is alleged in this paper that students' interest in this topic is based on their need to comprehend the mechanisms of socialization and one of the mechanisms of stabilization of the interpersonal relationships in society. The connection between the students' interest and the possibility of further integration of scientific concepts into real-life situations was thus indirectly confirmed (Kurt, 2021).

The fifth item of the open questionnaire focused on the students' interest in the development of alcohol dependency in small groups, offering a Soviet-rooted tradition of "sharing [a bottle of vodka] for three" as an example. At the beginning of the experiment, the negative answers to this item prevailed, as despite this expression being of common knowledge, most of the students perceived it as a joke not reflecting real-life situations. This may be explained, on the one hand, with the irrelevancy of this concept to the students; on the other hand, with this concept being rooted in social psychology. This result highlighted the didactic problem of the early use with first-year students of the concepts that are yet to be studied later in the educational process. Because of the lack of literature on the students' interest in the development of alcohol dependency in small groups, it was suggested that this problem requires further psychological and pedagogical study (Ivanchuk, 2020).

The sixth item of the questionnaire inquired about the interest in the acceptable range of alcohol consumption. Notably, at the beginning of the pedagogical experiment, the students of both faculties responded predominantly negatively; however, by the end of the experiment, the majority of the answers were positive. That is to say, this item was the first one in the experiment to evidently prove the change in the relevance of certain problems from negative to positive. Such a result can be attributed to the influence of the learning material in both groups, when the range of acceptable alcohol consumption was highlighted as a basic factor of development of alcohol dependency. Because of the lack of literature on the students' interest in the range of acceptable alcohol consumption, it can be stated that this issue requires a separate psychological and pedagogical study.

The seventh item of the questionnaire was about the students' interest in the uncritical alcohol consumption; the students were offered to respond if they wanted to learn more about these customs. At the ascertaining stage of the experiment, the negative responses prevailed in both groups, this prompted to consider this concept irrelevant to the students. The explanation for such a result could be the lack of psychological knowledge about the psychological defense mechanisms in first-year students. This result also underlines the didactic problem of the early use of the concepts that are yet to be studied later in the educational process with first-year students. Because of the lack of literature on the students' interest in psychological defense mechanisms, it was suggested that this problem requires further psychological and pedagogical study (Ivanchuk, 2021).

The sixth item of the questionnaire addressed the interest in alcohol withdrawal syndrome. This item received negative responses from the students of both faculties equally

at the beginning and at the end of the experiment. The possible explanation of this result is its low relevance and low correspondence to their life experience. Because of the lack of literature on the students' interest in the alcohol withdrawal syndrome, it can be hypothesized that the students of higher pedagogical educational institutions consider it unnecessary to study the attributes of individuals with alcohol addiction.

The results of the pedagogical experiment verified the expediency of the use of the range of acceptable alcohol consumption and alcohol-related phenomena as the basic concepts for building the learning material on the topic within the course content of the "Health, Safety, and Fundamentals of Occupational Safety" academic discipline (Alexander & Jetton, 1996; Ivanchuk, 2015; 2020; 2021). The basic concepts of the learning material on alcohol-related issues trigger the correction of one's own behavior, limiting the range of acceptability of alcohol consumption in the everyday life situations. The expediency of the new approaches to the anti-alcohol campaigning on the basis of the concepts of cultural competence and alcohol consumption as a form of enhancing social skills was corroborated as well (Makela, 1975; Sulkunen, 1987). The results of the research comply with the conclusion about the positive impact of narratives on students' learning of scientific concepts (Afanas'ev, 2013). The effectiveness of the social norms approach in shaping students' perceptions of the range of acceptable drinking has been confirmed (McAlaney et. al., 2015), as well as the conclusion that developing students' correct perceptions of alcohol use can be effective in reducing alcohol-related problems (Haug et. al., 2011) and the conclusion that it is possible to correct youth misperceptions of the range of acceptable drinking (Moreira et. al., 2009). The limitations regarding the development of the narratives about the alcohol phenomena for meeting the objective of the early use of new psychological and medical notions with the first-year students were discovered.

In general, the results of the pedagogical experiment prove the positive impact of the change in the topic structure and content within the academic discipline "Health, Safety, and Fundamentals of Occupational Safety" on the students' interest in safe social behavior. Moreover, it gives grounds to formulate recommendations about modernizing the course content of this discipline.

Conclusions and Implications

It was established that revealing the senses of the alcohol-related phenomena within specifically designed narratives elevates the level of interest of the first-year students in the corresponding topic within the course content of the "Health, Safety, and Fundamentals of Occupational Safety" academic discipline. It was confirmed that given indicators of the students' interest in the learning material characterize the levels of its development, provided the use of the concept of the relevance of this material.

The main results of the research are: early introduction of the specialized psychological concepts to the first-year students of the pedagogical university, development of methodology for the narratives, and the use of these narratives in the practice of teaching the "Health, Safety, and Fundamentals of Occupational Safety" academic discipline. The change of the traditional idea of intimidation, typical for anti-alcohol propaganda, to the concept of cultural competence creates the environment for the students to apply the alcohol-related knowledge in their everyday life. Consequently, the pre-service teachers will be trained to educate the schoolchildren about the conscious choice of the acceptable range of alcohol consumption in casual situations involving it. Knowledge about alcohol-related phenomena will contribute to the conscious following customs and traditions while socializing and may eventually aid to the self-control of the amount of consumed alcohol as a basic factor of the development of alcohol addiction.

An important issue of further research is the study of the rules of development of students' interest in their safety according to the following logical chain: students' interest in socialization \rightarrow interest in the practical use of knowledge about the alcohol-related phenomena in everyday-life situations \rightarrow interest in the "Health, Safety, and Fundamentals of Occupational Safety" academic discipline. An important matter to resolve for further studies is the development and use of narratives for forming the fundamentals of behavioral competencies for the successful socialization and critical reappropriation of traditional folk customs. The possible international significance of the study is to clarify the basic concept of the concept of cultural competence and alcohol consumption as a form of sociability. This will allow students to make a conscious choice of their own range of acceptable alcohol consumption.

Declaration of Interest

The authors declare no competing interest.

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Anatolii IVANCHUK, Tetiana ZUZIAK, Oksana MARUSHCHAK, Viktor SOLOVEI, Iryna KRASYLNYKOVA, Vitalii HLUKHANIUK, Viktor KRUPKA. Interest of the pre-service teachers in the alcohol-related issues

PROBLEMS OF EDUCATION IN THE 21st CENTURY Vol. 81, No. 2, 2023

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222

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