Professional online communication of a student in conditions of sustainable development of social systems

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Abstract. The article presents a description of the internal predictors of student success as a subject of communication in digital professional communities. The determinants of student success as a subject of modern communication in the digital environment are described. The role of communicative control, empathy, the chosen strategy of behavior in a conflict situation in the implementation of productive communication is shown. An analysis of the features of the manifestation of internal predictors of student success in the context of interaction in professional digital communities is presented. The introduction presents an analytical review of psychological research on student success as a subject of communication in digital professional communities. Clusters of factors that determine the success of students' communicative activity in the digital professional and educational environment are generalized and typified. The aim of the study is to study the success of a student as a subject of communication in digital professional communities. The study used a method of communicative self-control, an empathy scale, a test for studying behavior strategies in conflict. The article describes the main results of the study of self-control in communication, the level of empathy and the strategy of behavior in conflict as predictors of student success as a subject of communication.

1 Introduction

In the modern digital world of risks and uncertainty, the professional activity of the subject is subject to transformations produced by the digitalization of mastering the profession, the requirements for the quality of manifestations of professionalism in the information space. At present, it is advisable to use the developing potential of students' professional development in the context of global digitalization to model successful professional interaction in the future. In the conditions of the information space for the implementation...
of professional interaction, the role of the communicative component of the success and competitiveness of specialists in various fields increases [1].

Today, the task is to develop a special type of communicative competence in a future specialist due to the fact that actively implemented new digital tools, expansion of information flows, significant innovative transformations imply the use of new communication formats. A modern student must be able to quickly and effectively organize constructive contacts in digital professional communities and successfully adapt to completely new communication conditions [2]. The predictors of successful communication are: the ability to constantly update one's skills and knowledge, an active desire for self-realization and competitiveness, tolerance for uncertainty, psychological readiness for a certain risk, and mobility in decision-making.

The communicative competence of a student of a technical university ensures successful adaptation and professional socialization, self-realization in a new type of digital communities. The communicative competence of the student allows to successfully implement the goals put forward in professional interaction, to mobilely receive the necessary information, to present the idea in a meaningful way and defend one's position at different levels of interaction [3].

This type of professionally significant competence of a student is manifested in real interaction in the information space, as well as in the process of contextual learning through cognitive, regulatory, evaluation and control functions [4].

Important characteristics of a student's communicative competence are the following: the ability to mobile model and maintain productive contacts for a long time; a pronounced need for communication, a positive emotional attitude to diverse situations of communication, self-control, empathy, tolerance, trust in oneself, others and the world.

To improve a student's professional communicative competence, it is important to take into account the specifics of the conditions for building effective communication in a digital environment.

The preparation of students in a modern university should be based on the idea that effective professional communication in the information society is determined by the following positions:

- social intelligence, adequacy of social-perceptual perception;
- constructive communication;
- individual potential of the person;
- the ability to implement different social roles;
- the ability to reach mutual understanding at different levels of information exchange;
- the ability, working in a team, to maintain a personal position;
- the possibility of personal transformations and the ability to motivate others for positive changes;
- to agree on cooperation, to carry out psychological extensions [5, 6].

The success of a student as a subject of communication in digital professional communities is also related to the level of development of personal and behavioral characteristics, as well as strategic and tactical communication skills.

In modern conditions of uncertainty, the communicative competence of a specialist provides a constructive resolution of conflicts that arise in the process of interaction in professional communities, the choice of an adequate strategy of behavior in a conflict.

In the content of professional communicative competence in the context of digitalization, an important place is occupied by sociability, the ability to establish positive relationships with colleagues, to be the initiator of the dynamics of communication, a pronounced motivation to maintain and improve interaction, contact, as a characteristic that integrates the intellectual, perceptual, communication abilities of the individual.
The success of a student as a subject of communication in digital professional communities can be significantly hindered by the actualization of psychological barriers in the past experience of interaction. Therefore, the future specialist should master well the methods of destruction and prevention of psychological barriers, by overcoming the deficits in communication modeling skills, changing the surface level of interaction to a more productive one.

In the context of global digitalization, the role of improving communication in the professional training of each specialist is increasing. Of particular note is the importance of the period of study for students of a technical university for the formation of communicative competence of a new format, since student age is the most sensitive for this, especially in the information educational environment of the university [7, 8].

It is possible to single out the basic directions for improving the communicative competence of a student using the resource of the information educational environment of the university, namely:

- formation of individual communication clusters;
- accumulation and summation of communication resources;
- designing optimal navigation routes in the information flow.

Project activities in the information educational environment make it possible to create resource conditions for the formation of subjective, personal strategies for the growth of communicative competence in future specialists, which is necessary for successful interaction in digital professional communities. The predictors of success in the digital environment are the student's ability to modify and adjust communication strategies; show self-criticism and transformative activity; independence and responsibility for choosing promising information routes [9].

Online learning allows university students in a digital educational environment to widely master the skills of building effective communication and change already formed patterns of communicative behavior [10, 11].

The main functions of communication of future specialists in professional digital communities are the following:

- informational, providing adequate understanding and transmission of information;
- regulatory, focused on the regulation of communicative behavior and the organization of cooperation;
- affective, responsible for the emotional tone of communication.

The predictors of student success as a subject of communication in digital professional communities also include individual ways of encoding and transmitting, processing and decoding information.

In the activities of modern specialists of different levels, communicative competence ensures the effectiveness of informational aspects of professional activity. Here, not only the process of information exchange takes place, but also the transfer of the semantic load of the message, which makes possible the deep essence of the discussed professional information.

The process of communication carried out in professional digital communities allows not only to exchange information with colleagues and mentors, but, above all, to achieve an understanding of the essence of transmitted and received information, to record feedback in the form of a digital trace, to encode and decode messages of varying complexity, to track risks of communication in one mode or another.

The cognitive component of communicative competence, the student's knowledge about the possibilities of media resources, the functioning of the digital communication platform, understanding the tasks and methods of interaction in digital professional communities is important.
Of great importance is the development of the regulatory component, which provides control over communicative actions and the process of online interaction itself, as well as over the choice of content for information exchange. Following this logic, communicative competence today should include knowledge about the laws of communication in the digital environment, the psychological components of communication, experience spontaneously acquired in life practice and in online training sessions; as well as the experience of building communications, taking into account the personality of the participants in professional communication [12, 13]. For a future specialist, a high level of communicative competence is important as an opportunity to form productive teams, the ability to conduct professional discussions, defend one’s point of view in digital communities, and communicate to the experience and qualifications of successful colleagues.

Psychological studies show that the presence of a high level of communicative competence is one of the main conditions for the successful implementation of productive innovative activities and effective ones in professional digital communities. The productive process of communication in the professional space is characterized, first of all, by the achievement of basic mutual understanding, understanding of the specifics of the subject of discussion and the features of the current situation. This allows to ensure the maximum result in solving problems, achieve the goals of interaction, contributes to the optimal choice of a model for the implementation of professional activities and the expedient use of resources.

Today, students must acquire more effective techniques for organizing productive communication in the information space in the process of communication in digital professional communities [14].

The content of professional communicative competence includes personal properties that allow to successfully solve the main production, research and technological tasks, the ability to establish and maintain constructive contacts with colleagues and various categories of social partners, the ability to adequately interpret the behavior of a partner, clearly argue, objectively evaluate and structure the information received. Important for the effective communication of a future specialist in professional digital communities is the development of his ability to transform, readiness for transformative activity [15].

2 Materials and Methods

The following methods were used in the study: Emotional empathy questionnaire. A. Mehrabian, M. Epstein; "Scale of communicative self-control" (M. Snyder); Test-questionnaire Strategies of behavior in conflict (K. Thomas). The sample consisted of 150 students from DSTU and SFedU of various profiles.

3 Results and discussion

A great place in the implementation of the psychological component of the professional training of modern students should be occupied by the development of subjective communicative control, the ability to control one’s behavior in situations of varying complexity, the ability to understand and adequately evaluate the behavior and manifestations of the personality of a partner or group of contact participants, as well as the formation of adequate behavioral strategies in conflict.

The level of self-control in communication is an important predictor of a student’s success in professional interaction; this acquires special significance in a digital environment, where every communicative trace can be recorded. Self-control allows you to...
According to the results obtained, using the methods and the “Scale of Social Self-Control” (M. Snyder), a significant part of the students (51.2%) showed the presence of an average level of communicative control, a fairly large part of the respondents - 29.3% have a low level of self-control, which may indicate that students are not always able to manage themselves in the course of communication. High level of self-control was demonstrated by 19.5% of the study participants.

A high level of self-control is manifested in flexible communicative behavior, mobility of reaction adjustments in various professional situations of interaction in a digital environment, the ability to regulate the distance in the decision-making process, and resist manipulation.

The level of empathy formation is important for the student to achieve mutual understanding in digital professional communities, the choice of adequate psychological extensions and communication format.

A large number of respondents - students (42.5%) demonstrated a high level of empathy, which indicates their ability to understand and adequately interpret the behavior of another in the context of interpersonal interaction, they tend to be observant and attentive to others. 33.4% of respondents showed an average level of empathy development. 24.1% of students showed a low level of empathy. Such students are not observant enough, they cannot always adequately emotionally respond to the feelings of others, they may show indifference to the partner's position.
Empathy as a personal and professional quality that can help establish and maintain constructive long-term contacts.

Students showed quite good indicators on the empathy scale, perhaps this is due to the specifics of adolescence, the characteristics of students as a stage of testing different models of interpersonal interaction in their future professional activities. The personal profile of a modern professional necessarily includes empathy as a professionally important quality that contributes to achieving success in professional communication.

The formation of a constructive strategy of behavior in conflict among students is assessed as an internal determinant of the future success of a specialist as a subject of interaction in digital professional communities. An adequately chosen strategy of behavior in a conflict provides the possibility of correcting and optimizing the student's communicative activity and constructive behavior in the course of conflict resolution.

The analysis of the empirical data obtained regarding the personal predisposition of the respondents—students to a certain format of behavior in a conflict situation of interaction made it possible to state that such a strategy as "compromise" dominates, which allows achieving optimality in achieving the interests of the parties—35.3% of students.

"Rivalry", as a strategy based on the desire to achieve the set goals better than colleagues, is endowed with a high rank by 24.5% of respondents. Much less attractive for students is the "adaptation" strategy, which manifests itself in conflict situations as a willingness to sacrifice one's interests and ignoring certain personal principles—13.1% of the total sample of respondents.

The study of behavioral strategies in students' conflict makes it possible to predict clusters of behavioral reactions, which, with a high degree of probability, can be updated in conflict situations of professional interaction.

For students, such a strategy of behavior in a conflict as "avoidance" has an average degree of severity—17.4%, which is a projection of attitudes towards building conflict-free interaction routes. Today, the importance of cooperation in solving problems within the framework of interaction in digital professional communities is declared, at the same time, only 19.7% of student respondents choose "cooperation" as a strategy of behavior in a situation of conflict of interest. This does not meet modern requirements for building successful interaction between future specialists in digital professional communities.

**Fig. 3.** Behavior strategy

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The empirical data obtained make it possible to build individual profiles of the strategy of behavior in conflict for students and make it possible to specify the system of psychological support for the formation of conflictological competence of modern students.

Statistical analysis of the empirical data obtained using the Spearman rank correlation coefficient in order to establish correlations between the components of communicative competence showed that students' empathy is moderately positively associated with the strategy of behavior in the conflict "cooperation" \( r=0.51 \). The cooperation strategy has a positive relationship with self-control in communication \( r=0.59 \). The obtained results suggest that the predictors of a student's success as a subject of communication in digital professional communities can be developed communicative control, empathy, and formed conflict competence.

4 Conclusion

For a future specialist operating in the modern information world, a high level of communicative competence and the development of predictors of success in digital professional communities is important. One of the important professionally significant characteristics of a specialist today is the ability to cooperate, convince and form an existing team.

Communication in the digital environment is a complex and multifaceted process that integrates the presentation and transformation of professional information, the nature and prospects of interaction, the resources and risks of establishing cooperation, a set of individual techniques for organizing mutual understanding.

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