

HUMAN MENTAL ACTIVITY AND ITS VERBALIZATION

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Abstract: The article presents the problems of improving the efficiency of the learning process in the space of modern higher education. The research aims to establish the effectiveness of applying methods related to the verbalisation of human mental activity in the process of learning and self-organisation, and to the evaluation of teaching methods that apply verbalisation of mental activity by participants of the educational process. This involves considering the features of activating speech skills, clarifying the stages of teaching, analysing the learners' attitude to new approaches, several useful suggestions for teaching and acquiring speech skills, activating a positive attitude to rectitude, self-government, and career growth.

Keywords: verbalisation, mental activity, higher education institutions, cognition, communication skills

1 Introduction

Verbalisation of human mental activity and its role in a self-organised learning process is a topical subject for modern pedagogical thinking and is often considered as part of educational technologies. Practice-centred methods and procedures are developed by the Institute of Cognitive Behaviour (2021). These are 21 methods of "self-verbalisation" designed to develop and provide a strategy for positive thinking. The expression and verbalising assessments should guide the processes of learning, crisis situation resolution, and problem solving. These techniques are the basis of the experimental course called "Philosophy of Serving". A number of works touch upon the related issues (Jones, 1999; Ivanova, et al, 2020): when studying humanitarian subjects, European students of higher education institutions often expressed unwillingness to participate in verbal communication and refused to create systematic and structured educational texts. Verbalisation as a teaching method is aimed at improving speech and text-forming activities. This way of encoding the received information in regard to its emotional and cultural content also allows one to store and comprehend educational material as well as facilitates orientation in the topic and independent search for the necessary information in the case of independent topic development (Köktürk, 2012).

Verbalisation as an educational means requires a systematic approach to improving the learning process and the ability to use it. It can increase the self-effectiveness of learning since it is designed to increase self-esteem and make one believe in their capabilities. When preparing educational complexes based on the possibilities the verbalisation of mental abilities provides, it is necessary to carefully model actions and educational strategies.

2 Literature review

Pedagogy has developed a number of teaching methods based on communicative and interactive teaching practices (Rababah, 2020; Salgur, 2013) common in the fields where interactive teaching methods are involved. For example, foreign language learning, literary and journalistic activities, linguistics, law, (Patil, 2008; Synorub, 2019; Karpushyna, 2019).

The problems of fluent communication (and especially in foreign languages), the difficulties in creating one's own independent texts, their causes and consequences are considered by many researchers (Ko, et al, 2013). They offer ways to explain, neutralise, and eliminate them (Noon-ura, 2008). A number of researchers have studied the features of verbalisation of

individual mental states (Damian, et al, 2017). The phenomenon of multilingualism was considered as a way of learning. Simultaneous use of multiple languages is a way of verbalisation of a person's mental capabilities. Its special core of success is metalinguistic consciousness (Veera, 2018). An important part of the success in applying interactive teaching methods based on human verbalisation capabilities is motivation and its inclusion in the curricula of educational institutions (Sim, 2014; Kiki-Papadakis, 2016). These are motivation to speak several languages, cognitive and communicative competencies, attention to the features of speech memory (verbal, associative), features of crisis thinking in the context of education technologisation (Cavus, 2017; Mason, 2006).

In modern pedagogy, there are 2 main areas of work that analyse the causes of children and youth's struggling with the actualisation of speech activity, unwillingness to participate in debates, group discussions, and crisis meetings (Aronin, 2018). This is a study of the problem of silence (Czarnecki, 2014) and (Bruin, et al, 2014). Various interpretations of silence are highlighted. Their alternative or positive use in the cultural space and education is indicated. The second direction is focused on the necessity to activate the need for self-expression and introspection. In addition to the ability to listen, one should also express themselves, quickly navigate through the educational space, find a problem, verbalise its contents and solve it.

The problem of the complex use of methods of verbalisation of human mental activity was neglected by the researchers. Such complexity is possible within the framework of development courses, academic disciplines dedicated to communication skills, career growth, self-improvement, etc.

2.1 Aims

The research is aimed at establishing the effectiveness of educational innovations that use the possibilities of verbalisation of human mental abilities, in particular linguistic and speech activities, the actualisation of cognitive and communicative capabilities, activation of abilities for learning self-organisation. Based on the aim, it is planned to perform the following research tasks:

- Assess the effectiveness of activating verbalisation of mental activity at the level of improving students' overall academic performance caused by mastering verbal skills within the framework of the training course dedicated to career growth.
- Describe the degree of the respondents' interest and their positive attitude to the implementation of new educational components, aimed at self-development and improvement of educational skills.

3 Materials and research methods

The experiment involved 62 first-year students of the first (Bachelor's) educational level. They study for the legal specialties in the field of Economics (the faculty of Economics and Law" at Simon Kuznets Kharkiv National University of Economics (Ukraine); the Faculty of Natural Economics» at Kamianets-Podilskyi Ivan Ohienko National University (Ukraine). All the participants voluntarily agreed to participate in the experiment. All students were divided into four groups. Two of them were experimental (EG1, EG2). They actively used verbalisation during classroom training and independent work as a way to activate mental activity in the course of learning. In addition, a cognitive-communicative approach, methods of self-organisation, and interactive learning methods involving verballity have been applied. In the 1st semester, these groups were suggested to undergo a special academic discipline "Philosophy of Serving". It belonged to a selective block of disciplines (could be chosen by students) and was intended to familiarise the first-year students with the guidelines and rules of the higher educational institutions on the

policy of academic rectitude, active participation in student self-government, the formation of ethical behaviour of lawyers in the economic field, etc. The very concepts are of an abstract nature. It requires verbal effort and actualisation of communicative contents. The possibilities of verbalisation are widely used as a learning tool. For 2 control groups (CG1, CG2), the curriculum did not provide for the introduction of a selective course "Philosophy of Serving".

The research involves a 3-stage experiment. Before Stage I and at the end of it, the initial assessment of the respondents' academic performance was carried out (overall average score of student learning outcomes). Moreover, the questionnaires were distributed, and the questionnaire survey was conducted with the purpose of gathering personal data and determining the attitude of respondents to the offered discipline. Students gave answers voluntarily. The research team guarantees the privacy of surveys, and the personal information received will not be made public by the research team.

Before the experiment started, as well as at Stage II (at the end of the semester), each group was assessed for their academic performance. We refer to the average score for all subjects. However, at the beginning of the experiment, the results of the school certificate are taken as a basis. The data has been collecting from September 2020 to April 2021 at Kamianets-Podilskyi Ivan Ohienko National University (Ukraine) at the Faculty of Natural Economics and Simon Kuznets Kharkiv National University of Economics (Ukraine) at the Faculty of Economics and Law.

At Stage II, the methods of observation and survey were used. The research team collected and analysed data, which was planned to be used later as the answers to the questions suggested by the study. At Stage III, the obtained results underwent the final analysis. The data was processed and used in such a way that it could serve as the basis for determining the effectiveness of the implemented experiment, and the answer to problematic research questions.

To have a comprehensive understanding of the analysis, the research team resorted to a number of methodological developments and theoretical studies as references. Their goal was to answer the problem questions covered in the study such as verbalisation of mental activity, introspection and self-organisation of the educational process, cognitive abilities and activation of all forms of linguistic and speech activity. The results of the experiment are presented as statistics descriptions. The survey data was taken into account.

4 Results

In our opinion, an important stage of the research is determining the content and role of the verbalisation process in the structure and methodological organisation of developing training courses in communication and speech development, career orientation. This is due to the verbal component being a priority part of this type of course. It is generally known that speech activity and verbalisation provide a strategy of expression. They guide in the course of solving crisis or problem situations. Moreover, they contribute to identifying a problematic issue – clarifying, naming, and understanding the requirements for the successful implementation of tasks.

In the educational process, verbalisation of mental activity is designed to facilitate the learning process and simplify dealing with problematic issues and crises. The use of verbalisation also makes it easier to understand the content of such abstractions as rectitude, ethics, vocation, and behavioural patterns. Verbalisation of abstract concepts is a modern method of teaching career positions. This method is aimed at deepening students' understanding of the depth of the basic concepts of rectitude and the peculiarities of the profession, cultural features, ethical and moral attitudes. Verbalisation is a method that involves applying a set of educational approaches (see Fig. 1).

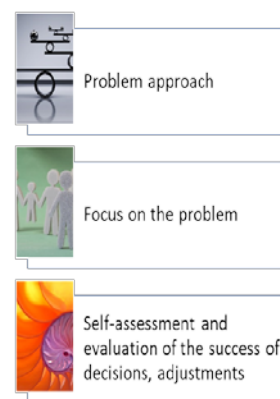


Figure 1 – A set of educational approaches involving a method of verbalisation in the structure of the training course

During the development of the discipline for first-year students and before starting the experiment, the research team had relied on a number of mandatory research guidelines.

First, a problem-based approach to learning should be applied. Then should come planning of a general strategy for solving the problem, and specifying the main steps to the solution through verbalisation. Secondly, it is worth focusing on the formulation of problem questions and answers to them. Such a cognitive-communicative approach helps to choose the most optimal solutions to problems after analysing all possible answers. Thirdly, when the range of problems is solved, one should resort to self-reviewing, verbalise the suggested solutions for their correct implementation and use opportunities to fix incorrectly completed tasks. Before starting the experiment, the research team evaluated the academic performance of first-year students based on their school certificates (see Table 1).

Table 1: Assessment of academic performance in experimental and control groups (based on school certificates)

	Unsatisfactory	Satisfactory	Good	Excellent
EG1	10%	39%	41%	20%
EG2	6%	42%	40%	20%
CG3	8%	42%	48%	10%
CG4	9%	44%	43%	13%

At the end of Stage I, which coincides with the end of the 1st semester, knowledge control and analysis of the overall performance level of the respondents were carried out (see Table 2).

Table 2: Assessment of academic performance in experimental and control groups at the end of Stage I

	Unsatisfactory	Satisfactory	Good	Excellent
EG1	5%	34%	44%	17%
EG2	7%	35%	40%	18%
CG3	6%	36%	46%	12%
CG4	6%	38%	41%	14%

As it can be seen, after completing half of the course "Philosophy of Serving", the performance of the experimental group is higher than the one of the control group. The largest number of positive ratings, that is 61%, belongs to EG1 and 68% – to EG2.

Stage II aimed at control measuring of students' academic performance and identifying changes, if any, in the course of training and while continuing teaching the "Philosophy of Serving" discipline to experimental groups. The definition of the average score of students' academic performance was held at the end of the 2nd semester (see Table 3).

Table 3. Assessment of academic performance in experimental and control groups at the end of Stage II

	Unsatisfactory	Satisfactory	Good	Excellent
EG1	4%	30%	50%	20%
EG2	5%	34%	39%	30%
CG3	4%	28%	48%	13%
CG4	5%	30%	39%	17%

After completing the entire training course, positive grades were received by EG1 – 70%, EG2 – 69%. In addition, general students' performance increased by 5% on average. In CG1 and CG2, academic performance increased by an average of 2%. Stage III. The final stage. The final assessment consisted of a number of indicators. These are the results of performance. Control tests made it possible to measure the level of verbal proficiency while expressing thoughts and during cognitive processes. Thus, a student's academic performance is an indicator of the level of proficiency in an arsenal of anti-crisis skills and the ability to introspect. Here also belong the ability to convert cognition into a set of statements and the ability to use the entire arsenal of text-forming skills. Another indicative criterion is the variety of speech techniques and idiomatic expressions used by a person. The ability to conduct a constructive dialogue, make speeches, translate texts (written and audio), and have a wide range of topics for discussion was also taken into account.

At the final stage, all respondents were offered a questionnaire containing the question: which methods do you find the most effective? The answers to closed questions were “yes” or “no”. The results are presented in percentage terms.

While studying the discipline, the students had to focus on acquiring a number of skills and abilities, as well as assessing the importance of these opportunities for them. 7 positions were submitted for consideration by respondents.

- Awareness and attention. Awareness of the existence of positive and negative thoughts about one's personality expressed by their colleagues. Hence the ability to listen and receive information about oneself, listen to the colleagues' opinions about your personality and adjust your activities if necessary.
- Self-regulation of one's own speech activity. The ability to form independent utterance in any situation. There are times of crisis when it is important to keep your reaction under control. Changes in the course of the author's monologue speech from negative to positive are an effective way to manage stress.
- Letting go of problems through discussion. Re-thinking of negative impressions. Discussion of unpleasant complicated and difficult-to-understand topics, the search for existing positive moments.
- Ability to listen, support through silence. The perception of the problem as the loss of many prospects can be eliminated. In this regard, the fact that sometimes our desires, dreams, and fears should be let go and new goals should be set should be discussed.
- Support through silence. The ability to listen. The ability to produce silent speech, and then pronounce this text, Plus, the ability to listen and analyse the statements of others.
- Self-instruction, regulated utterance. A self-regulating statement that is aimed at solving a problematic issue. Actually training instruction to oneself, determining the algorithm of actions for successful solving the problem.
- Ability to respond effectively in an unexpected situation. Unpredictable situations are a good way to teach verbalisation and self-verbalisation. One should demonstrate themselves as an effective speaker with the inclusion of cognitive capabilities (see Table 4).

Based on the results of the survey, it can be assumed that positive assessment of one's own capabilities and willingness to use methods of learning and improvement through verbalisation

of mental activity were increased by an average of 10% among members of experimental groups.

Table 4: Questionnaire on the assessment of the methods used by the participants of the experiment within the framework of the discipline “Philosophy of Serving” (author's development)

	EG1	EG2	CG1	CG2
Verbal means of mental activity activation	Yes	yes	yes	Yes
Awareness and attention.	32%	34%	25%	20%
Self-regulation of one's speech activity	27%	29%	20%	18%
Letting go of problems through discussion	38%	37%	20%	20%
Ability to listen, support through silence.	48%	40%	25%	25%
Self-instruction, regulated utterance.	60%	59%	44%	42%
Ability to respond effectively in an unexpected situation.	58%	53%	42%	38%

Activation of verbality in educational activities makes it possible to realise one's potential to form communication skills, the skills of independent work, purposefulness, critical thinking, creative abilities, and communicative competence.

The cognitive-communicative approach as a way of verbalising a person's mental activity contributes to the growth of academic performance. It also facilitates the process of solving problematic issues, the ability to introspect and self-edit texts. Taken together, these aspects activate intellectual activity, cultivate independence in decision-making. Verbalisation of mental activity is a multi-layered system process, in which the right approach to learning, a system of speech scenarios and an emotional and cultural component are valuable.

5 Discussion

According to the research by Goh, & Burns (2012), a methodology for activating and improving speech activity has been developed. Its key components are verbality, focus on self-improvement and self-organisation, cognitive and communicative skills, and speech strategies. In the course of our research, we've found out that the introduction of innovative in content and nature disciplines, constant consolidation and development of cognitive abilities through verbalisation, the use of the ability to form dialogical and monologue internal speech, correction of one's verbal skills in crisis situations, in particular, play a significant role. All this increases a positive attitude to the development of verbal abilities, communication skills, etc. by 10%.

The research team found that the introduction of developmental in nature courses (verbal-centred ones) will enable to achieve a number of training goals: motivate students to plan their own development, improve speech skills; constantly prepare students for active participation in cultural and speech scenarios, conversational activities.

In general, the style of communication depends on the characteristics of the language, the discursive practice involved, the cultural scenario in the communication situation, the distribution of roles, that is, the features of verbalisation of thoughts and feelings that arise and are realised in the process of communication (Hapsari, 2018). These problems regularly become the subject of analysis by the world pedagogical community (Kostikova, 2019). Sometimes difficulties in the process of verbalising one's own thoughts and feelings are represented as the disjointedness of linguistic and cultural traditions of communication and actually those expectations that are planned during the implementation of educational technologies (Iyobe, 2014).

Verbalisation is implemented in the course of training as an observation. The teacher instructs on verbalising intentions, models of action, and focuses students' attention on a certain

choice as part of the suggested course. Verbalisation should help you code and maintain successful models of professional and career types. Verbalisation in the educational and creative processes can be an effective means of nominating simulated events that are stored in memory and determine behaviour. In the course of the research, it has been established that a number of skills that are based on the process of verbalisation, also strengthen motivation. They turn one to positive thinking, and a positive assessment of their own actions and opportunities has a good effect on academic performance. And this is a solid basis for self-education.

An important cognitive mechanism that influences learning and behaviour is the perception of one's own performance. It also helps form personal beliefs about organisational change and achieving a planned professional level. High self-esteem and academic performance influence the choice of activities in the future (Kostikova, et al, 2019). In our opinion, the main goal of the educational community should be to find ways to improve the self-esteem of students, so that they are more and more willing to participate in active forms of learning, solve problems, cultivate perseverance and make efforts to achieve their goals.

This research has many limitations. First of all, we should point out the duration of the project (1 academic hour), limited resources, and the inability to conduct a long-term in-depth analysis with focus groups and in-depth interviews, in particular.

6 Conclusion

Active verbalisation of individual mental activity in learning and promotion of self-expression is important for successful learning and further career growth. The educational system should contribute to the development of such values and the formation of positive-minded citizens. Some of the emphasis are put on the development of speech skills at different levels, and correct use of verbality in critical and problematic situations.

The experiment has proven the effectiveness of this technique, which helps to make the learning process more efficient. The academic performance of the experimental groups has increased by an average of 5%. Meanwhile, the positive attitude towards interactive learning personalities in the experimental group has increased by an average of 10%. This enabled us to describe the degree of the respondents' interest and their positive attitude to the implementation of new educational components, aimed at self-development and improvement of educational skills.

The practical significance of the research consists in determining a positive impact on the overall academic performance of students caused by the introduction of developmental courses into the curriculum, as well as using educational methods and their complexes in the teaching process, based on verbalisation as a way to activate human mental activity, especially when mastering abstractions, ethical and moral attitudes and activating the actual social and independent activity of students.

The problem of further promotion and introduction of advanced methods for the development of verbal communication into educational practice, strengthening the field of teaching verbality, studying the conditions for creating communicative and educational situations that encourage students to be speech-active remains open.

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