УДК 378.015.3: [378.147:811'243]

Rudnytska T. H.,
Assistant Professor of the Department of Foreign Languages
Vinnytsia National Technical University

Slobodianiuk A.A.,
Assistant Professor of the Department of Foreign Languages
Vinnytsia National Technical University

Ivanchyk T. V.,
Student of group MOf-15
Faculty of Management and Information Security
Vinnytsia National Technical University
Vinnytsia, Ukraine

IMPROVING DISCIPLINE RELATED PROBLEM-SOLVING SKILLS

Problem-solving is an important competency and one of the most vital and basic skills required in modern life. Problems can affect many aspects of human lives including social, personal, health and education. Being able to problem solve in educational environment is extremely important. How students go about solving their problems is important in terms of how successful the results will be. Problems need to be worked through systematically and logically in order to come to a satisfactory conclusion.

Problem-solving skills are necessary in all areas of life, and classroom problem solving activities can be a great way to get students prepared and ready to solve real problems in real life scenarios. Whether in educational establishments, work or in their social relationship the ability to critically analyze a problem, map out all its elements and then prepare a workable solution is one of the most valuable skills one can acquire in life. Being creative, considering several strategies and trying out multiple strategies as a means toward reaching the solution is part of being a good problem solver [1, p. 36].

Effective problem-solving relies on being knowledgeable about the problem. Expertise in teaching is a function of how teachers organize their experience and knowledge and encourage students to participate in the learning process.

The essence of problem–solving in education is to acquire methods of gaining new knowledge independently based on application of existing knowledge and skills. The major purpose of teaching problem-solving skills is to enable students to solve various types of problems within an academic discipline.

The approach is particularly productive in teaching foreign languages. Teachers of English have great opportunities to contribute to this process and help students become better problem solvers of discipline-related problems.

Problem-solving strategies are activities that students can use to solve various kinds of problems, such as identifying the elements of the problem or defining the nature of the problem. These general strategies include means- ends analyzes, working backward, simplification, generalization and specialization, trial and error applying rules, brainstorming, using contradiction, restating the problem and using analogies and metaphors [6, p. 163]. Some of these activities can be successfully used in educating qualified translators and interpreters at the specialized university departments and faculties that have programs leading to an advanced degree in management, human resources, psychology and engineering. The factor of problem solving as higher-order thinking skills should be taken into consideration while working out strategies and teaching methods to train reading, writing and speaking skills in the courses of the theory and practice of translation and terminology science.

Educating students about problem solving skills in the university setting can be facilitated through classroom problem solving activities. Such methods encourage cognitive as well as social development and can equip students with the tools to address and solve problems in the educational environments and at the workplace. The following classroom problem solving activities the students are sure to benefit from include:

1. Brainstorming as a way to generate original ideas or to create a new method of doing things is of primary importance. Brainstorming can be done individually or

in groups. When brainstorming the goal is to generate as many ideas and uncommon solutions as possible. If students brainstorm in a group, they can create new ideas. One student suggestion may give another student a terrific idea that he would not have thought of without the other students idea. Group members can cooperate with each other and modify students ideas in order to make new ones. Becoming good at brainstorming has a practical application to future career.

Brainstorming is used successfully in a variety of areas in the curriculum from planning a business project to comprehending a scientific text or writing a manual to a technical device. The teacher can use a pre-reading brainstorming strategy to apply the students current knowledge in developing new concepts [6, p. 165].

2. Working backward strategy consists of trying to define the goal in terms of the givens. Since students as future translators often have relatively unlimited opportunity to make alterations and improvements before submitting a final version of the technical text translation the teachers can use this strategy solving some complicated terminological problems in translating compound terms with prefixes and suffixes. By working backward from the end of the term the students are able to draw the way to the stem and correctly translate the term and derive the word meaning focusing on the peculiarities of the English word-formation.

3. Contradiction is a problem-solving strategy that uses the process of elimination to find the correct solution. This activity is likely to touch upon the problems that have only a few, mutually exclusive solutions, for example multiple choice grammar and lexical tests e. g. to identify the odd word or phrase that must be changed or omitted in order for the sentence to be correct.

4. The aim of generalization and specialization strategies is to approach a problem from both a broad and a narrow point of view. Generalization is the process of a viewing a problem as a particular example of a broader problem. Specialization is the process of viewing the problem narrowly and identifying its unique components. The usefulness of these general problem-solving strategies is evident if to tackle the theory and practice of translation, in particular the study of lexical semantic transformation of generalization of word meaning when a lexical unit of a

narrower meaning in the source language is replaced by a lexical unit of a broader meaning in the target language, and differentiation of a word meaning that can be defined as the replacement of a lexical unit of broad meaning with a lexical unit of narrower meaning.

5. And, finally, it is possible to solve a problem by applying strategies of analogies and metaphors.

To test the students' knowledge of vocabulary and the ability to recognize different types of lexical meanings the teacher may use metaphor as the transference of some quality from one object to another.

Studying lexical expressive means and stylistic devices the future translators can determine contextual and transferred meanings applying this domain-specific problem solving strategy.

To conclude, an increasing demand for skills and competences requires domain-specific problem-solving abilities to respond in new ways. The teachers role is therefore essential in creating a high quality student experience and enabling the acquisition of knowledge, competences and skills. For a good higher education experience it is necessary to provide students with both academic knowledge and skills which may influence their personal development and may be applied in their future careers. The study of educational psychology increases the knowledge of teaching and gives the opportunity to solve more effectively problems the students encounter as future specialists in science and engineering.

СПИСОК ВИКОРИСТАНИХ ДЖЕРЕЛ

1. Anderson J. R. Problem solving and learning. American psychologist 48., 1993.
2. Дьюи Дж. Психология и педагогика мышления. 1997. 208 с.
3. Максименко С. Д., Зайчук В. О., Клименко В. В., Соловієнко В. О. Загальна психологія: підручник для студентів вищ. навч. закладів. 2000 . 217 с.

4. Ormond J. E. Essentials of Educational Psychology. Pearson Merrill Prentice Hall. 2006.
5. Fogarty R. and Tighes J. Mc Educating Teachers for Higher – Order Thinking. The Three-Story Intellect. Theory into Practice. 1993.
6. Tomas K. Crowl, Sally Kaminsky, David M. Podell Educational Psychology. Windows on Teaching. New York, 1997. 416p.