

Case Study

Transdisciplinary Approach Application in Teaching English Spoken Interaction: Ukrainian University-A Case Study

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ABSTRACT

This paper is a preliminary attempt to analyse the results of implementing the transdisciplinary approach in teaching English professional spoken interaction to mediators at the universities of Ukraine within emergency remote teaching. The study aims to broaden current knowledge of the transdisciplinary approach in Ukrainian university case study. The authors focused on the main characteristics of the transdisciplinary approach and elaborated the Triple Helix: English for specific purposes, mediation field, and stakeholders to ensure penetration of mediation knowledge, skills, and abilities into the knowledge, skills, and abilities of English for Specific Purposes (ESP). There are 42 future mediators who took part in the research. The stages and aims of the transdisciplinary approach in teaching English professional spoken interaction to mediators are identified. They are used to conduct quantitative and qualitative experimental data analysis during ESP teaching. The theoretical and practical analyses were used to stipulate the impact of the transdisciplinary approach on teaching English professional spoken interaction to mediators during emergency remote teaching. This research has shown that applying a transdisciplinary

approach allows future mediators to develop professional skills in conflict detection, analysis, and management using different fields of knowledge. The prospect of implementing a transdisciplinary approach is a continuous incentive for future research with students of different specialisms.

Keywords: Emergency remote teaching, English for specific purposes, mediators, professional spoken interaction, transdisciplinary approach

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INTRODUCTION

From the spring of 2020 to 2022, the pandemic affected higher education in Ukraine. Even though the national higher education was almost ready to continue teaching and learning online, it experienced some challenges in emergency remote teaching. The globalisation of education plays a vital role in online learning. It is suggested that one of its most important elements is the informatisation of society, which is intricately connected with the rapid development of computer and information technologies. In pandemic times, globalisation has brought together many opportunities for students and teachers to receive information online, remotely participate in conferences, and webinars, use books from world libraries and read scientific articles. The Internet has become one of the most important resources for obtaining information for students and teachers and for a wide range of people who want to continue their professional development (Hayden et al., 2020).

However, the world's pandemic does not resolve international conflicts and disputes but acts as a powerful catalyst. The conflicts and contradictions that have arisen long before the pandemic has aggravated, and the general chaos is intensifying (Huang, 2020). As a result, the fight against coronavirus in different countries and the global economic crisis provoked even more international conflicts and disputes and increased the need for qualified mediators. Thus, future specialists in the field of mediation and conflict resolution must know the causes and features of regional and ethnic conflicts in

the world, and methods of their management and prevention, and be able to conduct and organise projects of international cooperation.

Coey (2018) believes that the main features of modern civilisation are the rapid growth of information leading to the fragmentation of the perception of the world increases, the crisis of self-determination, and tension in interethnic and interfaith relations. However, the amount of information growing hyperbolically (thanks to the development of the Internet) and globalisation processes in the world lead to innovative changes in pedagogical approaches.

At the university, future mediators gain the basic professional knowledge that is rapidly transforming due to the changes in the world. The new pedagogical approach must correspond to new pedagogical techniques, methods, and technologies. We believe the most effective way is to adopt an approach based on integrating knowledge. The transdisciplinary approach based on integrating knowledge from different fields must be presented to provide students with the necessary knowledge, skills, and abilities. In the learning process, transdisciplinarity is the development of concepts with fundamental cognitive significance and broad open possibilities for the interaction of many disciplines in solving complex societal problems. Thus, the transdisciplinarity approach in teaching English-spoken interaction integrates the knowledge, skills, and abilities required in various subject areas.

Literature Review

The transdisciplinary approach has received much attention in the past decade. Within our case study, two goals can be distinguished during its implementation into the educational process in higher institutions of Ukraine: ensuring the integrity of knowledge and a holistic influence on all human spheres, which involves establishing a connection between the cognitive and emotional sides of education.

The characteristics of transdisciplinarity are not well understood due to its variable content. The urgent need for transdisciplinarity appears in studies that cross the boundaries of many disciplines and the threshold of specific disciplines to develop solutions for complex problems in science and society. Thus, the transdisciplinary approach has become especially relevant since a change in scientific paradigms of knowledge—the formation of a post-non-classical paradigm of knowledge in science and education, in particular (Simkova & Saienko, 2019).

However, in the literature, there seems to be no general definition of transdisciplinarity; most researchers (Jeder, 2014; Tang, 2015) tend to agree on the fact that transdisciplinarity appears as a result of scientific knowledge forced threshold crossing in the proses of analysis, synthesis, and comprehension of the global world phenomena. According to Tang (2015), J. Habermas (2001) associates the need for a transdisciplinary approach in education with the fields that use a reconstructive technique, relying on the pre-theoretical knowledge of

competent experts in their judgments and knowledge systems transmitted by cultural traditions.

The last five years have witnessed a huge growth in philosophical and scientific studies, where the difference between interdisciplinarity, multidisciplinary, and transdisciplinarity are considered in sufficient detail (Bernstein, 2015; Moki, 2017). However, those differences are not addressed in this paper. We initiated this research to investigate the impact of the transdisciplinary approach on teaching spoken interaction in English to future mediators allowing us to talk about transdisciplinarity as a strategic basis for developing a fundamentally different perception of the educational space and objects.

Throughout this paper, we consider the transdisciplinary approach *modus* to designate the principle of scientific knowledge acquisition, which provides wide possibilities for the interaction of many disciplines in solving complex problems of teaching English-spoken interaction to mediators at university. It helps us to create a holistic vision of the researched issue. The transdisciplinary approach assumes the transfer and penetration of cognitive schemas from one disciplinary field to another and their joint implementation in teaching English-spoken interaction to mediators at the university.

In studies by Knight (2018) and Stepanova et al. (2020), the English-spoken interaction of mediators is considered a kind of professional communication followed by

information exchange. Other observations suggest that this explanation is insufficient (Krestovska et al., 2017) as information exchange is a global phenomenon that goes beyond the scope of professional communication. The aim of information exchange is not the exchange itself but the need to develop a common understanding of issues during communication. Having received the information, the mediator interprets and perceives it in a specific way. The results depend on the information itself, as well as on the individual experience of the mediator, their background knowledge, and the general level of soft and hard skills development. Under the influence of many circumstances, mediators may understand and perceive the same message in completely different ways. Moreover, they may even give opposite assessments of the same phenomenon, perceiving it differently (Tuliakova, 2020). Therefore, productive communication is usually accompanied by clarifications, explanations, and detailed elaboration—effectively developed skills and abilities during teaching English-spoken interaction to mediators.

According to the professional requirements, future mediators must effectively participate in formal negotiations, meetings, and business meetings related to their professional activities (Narovska, 2019). They should be able to recognise the typical professional vocabulary, differentiate typical professional situations, appropriately behave, and react to messages in a professional environment, anticipate and perceive the parties' views in the

mediation process, and effectively build English professional spoken interaction.

The year 2019 has become a new stage in developing the mediation field in Ukraine. The United Nations Convention on International Settlement Agreements Resulting from Mediation (United Nations, 2018) was signed in Singapore. Ukraine has become a full participant among the other 46 countries, including China and the United States. Ukraine's participation in the signing of the convention contributes to the fact that foreign partners will consider Ukraine as a country that recognises the provisions of the convention and is ready to promote and use alternative dispute resolution. This document aims to create a favourable investment climate in Ukraine, reducing business costs for dispute resolution and court delivery.

The complex challenges put forward by the labour market before the future mediators are effective international communication and exchange of experiences, increasing students' mobility, access to information, and mutual understanding during professional activities. International standards of mediation, which are multilateral, exist at the universal and regional levels. Regional legal cooperation is mainly conducted within the framework of continental international associations in North, Central, and South America, Africa, Southeast Asia, the Middle East, and others (Krestovska et al., 2017). As Ukraine is geographically located on the European continent and is actively integrating into the European legal space, it seems appropriate

to train mediators ready for interstate cooperation within the framework of European associations (Narovska, 2019). In this situation, the transdisciplinary approach represents a valuable innovative alternative to widely known professional-based or communicative-based approaches.

The transdisciplinary approach's application in teaching spoken interaction in English presupposes using the Triple Helix. The emergence of the Triple Helix is associated with globalisation, which affects substantial changes in science, technology, economics, and politics (Simkova & Saienko, 2019). In our study to provide the efficient teaching of English-spoken interaction to mediators, we elaborated the Triple Helix: English for specific purposes, mediation field, and stakeholders that bears a close resemblance to the helix of social partnership: university, government, and business proposed in the studies of Etzkowitz and Zhou (2017). The proposed Triple Helix assures penetration of mediation knowledge, skills, and abilities into the knowledge, skills, and abilities of English professional spoken interaction and their joint implementation in the various professional situation originated by stakeholders. In this aspect, the range of stakeholders may vary from local and national organisations to international such as NATO or UNO.

The paper's authors conclude that the transdisciplinary approach enhances the teaching of English professional spoken interaction because it represents a means of achieving knowledge and developing

skills and abilities necessary for mediators in professional spoken interaction, such as negotiations and conflict resolutions. Thus, our study aims to broaden the current knowledge of transdisciplinarity and investigate the impact of the transdisciplinary approach on teaching English professional spoken interaction to mediators at higher institutions.

METHODS

In order to achieve the goals of the study, a complex of empirical and theoretical methods of scientific research are used. The main theoretical methods used in the study are the generalisation of knowledge about transdisciplinarity, analysis of documents regulating the work of the specialists in mediation and conflict resolution, and conceptual provisions of the methodology of English professional spoken interaction teaching of future specialists in the field of mediation. The empirical methods used in the study are the Likert-type scale for the assessment of the performance of the tasks and the quantitative method to show the impact of the transdisciplinary approach on the teaching of English professional spoken interaction to future mediators in the groups which used the transdisciplinary approach and compare the results with the groups which use the traditional learning method before and after the English for Specific Purposes course. The qualitative method was used to explore the future mediators' answers during semi-structured interviews.

Participants

The study involved 42 master's degree students at the Igor Sikorsky Kyiv Polytechnic Institute (Kyiv, Ukraine) majoring in Mediation and Conflict Resolution, who took a course in English for specific purposes in the first (autumn-winter) semester of 2020 and 2021. The future mediators participated in the experimental study voluntarily. The study of the course covered 36 contact hours (1 class per week). In Ukraine, the master's degree admission programme is based on the results of national English exams; thus, students' language proficiency level was approximately the same—B2 according to the Common European Framework of Reference (CEFR). The future mediators were divided into two groups: testing and academic (21 participants in each group). The academic group was taught ESP using traditional methods, and the testing group used the transdisciplinary approach. The master's degree students were chosen in our research because they possess sufficient English language proficiency. Most of them had experience in mediation during practical training after completing their bachelor's degrees.

Materials and Procedure

During the experimental study within the ESP course, both groups studied the following topics: "Local make-peace activity," "Social reunion and reconciliation," and "Negotiation as a way of solving conflicts." The academic group was taught traditional methods and performed the

usual tasks: explaining professional terms and concepts and performing professional dialogues. In the testing group, we used the transdisciplinary approach, implemented if the separate activity in the fields does not bring effective results. It incorporates the intersection of different fields (subjects, representatives) that are not identical, for example, mediation, professional spoken interaction, and the English language. Future mediators in the testing group are asked to negotiate to resolve the conflict on one of the special topics (nuclear weapons, Children of the Revolution, A Day Called X, Donetsk: City of Contrast). In the testing group, before delivering the special topic, teachers provide future mediators with authentic presentations, where students can see and analyse the behaviour and communication of real mediators. They also invite mediators to share their experiences with the students. It helps future professionals be informed about the origins of different world conflicts, anticipate the stages of conflict regulation, provide constructive decisions, be aware of management principles, decision-making factors in conflict prevention, stages of the negotiation process, strategy, and tactics. In the end, students of the testing group performed tasks connected with conflict resolution.

In our research, we used innovative tasks aimed at the development of communication skills, collaboration skills, and critical thinking skills. The tasks performed by future mediators within the course can be divided into three stages: informative, research, and presentational. Table 1 shows the aims of the stages.

In order to investigate the effectiveness of the transdisciplinary approach in teaching English professional spoken interaction, students of both groups were offered a pre-test at the beginning of the course and a post-test after its completion. The tests were designed by Tuliakova (2020). The tasks were identical in both groups and aimed at assessing English professional spoken interaction by future mediators before and after the experimental study. Typical instructions for speaking tasks proposed to students were performing an information gap activity, describing a kind of conflict based on a photo or video presentation, proposing the ways of conflict resolution, and discussing the ways of proposed conflict resolution. We also conducted

informal semi-structured interviews with the participants of the testing group, requiring the students to elaborate on their attitudes to task-based learning: (1) Did you know the peculiarities of English professional spoken interaction for mediators? (2) Do you think the assignments you performed during the ESP course will be useful during the mediation activity? and (3) What difficulties did you face in resolving conflict while working on the assignments?

The effectiveness of implementing the transdisciplinary approach in teaching English professional spoken interaction was estimated based on the results of English professional spoken interaction and the results of conducted semi-structured interviews.

Table 1

The stages and aims used within the application of the transdisciplinary approach in teaching English-spoken interaction

Stages' names	Aim of the stage
Informative	Assimilation and consolidation of English language materials to a professional topic or situation; statements based on the materials of one completed opinion.
Research	Switching from one professional task to another, considering the logical connection of sentences following the studied topic.
Presentational	Development and presentation of resolutions to discussed conflicts using various functional languages. Construction and expression of personal attitude to facts or events; formulation of critical assessment and argumentation.

We chose the semi-structured interview since it allows us to explore additional information about developing students' English professional spoken interaction skills relevant to the study. The interview takes not more than three minutes for each student.

RESULTS AND DISCUSSION

The analysis of testing before the implementation of the transdisciplinary approach was used to confirm that both groups of the experimental study had approximately similar levels of knowledge in English professional spoken interaction.

The pre-testing results showed no significant differences in the levels of English professional spoken interaction in both groups. To evaluate the results, we used the Likert-type scale (Tsang, 2012), which implied Excellent performance (95–100 points), Very Good performance (94–85%), Good performance (84–75%), Satisfactory 74–65%, Average 64–60%, Low 59–0% of correct answers. Table 2 shows a comparative analysis of the percentage of students in testing and academic groups: Excellent (20% of students in each group), Very Good (25% of students in each group), Good (31% and 25% of students, respectively), Satisfactory (14% and 20% of students, respectively), Sufficient (10% and 11% of students, respectively). There were no students with Insufficient performance.

After implementing the transdisciplinary approach in teaching English professional spoken interaction to mediators, we observe

the positive dynamics in both groups. However, the percentage of students who demonstrated higher performance (Excellent, Very Good, and Good) in the testing group increased in comparison with the academic group that used traditional approaches in teaching English professional spoken interaction to mediators (by 6% vs 3.3%, 3% vs 2.7%, 4.4% vs 3.7%, respectively). Figure 1 presents the percentage of students who demonstrate average performance, which decreased significantly in the testing group than in the academic group (by 7.2% vs 5%, and 6.2% vs 4.7%, respectively). The most marked observation from the data comparison was that implementing a transdisciplinary approach in teaching English professional spoken interaction to mediators increased the level of knowledge, skills, and abilities of students who demonstrate average performance.

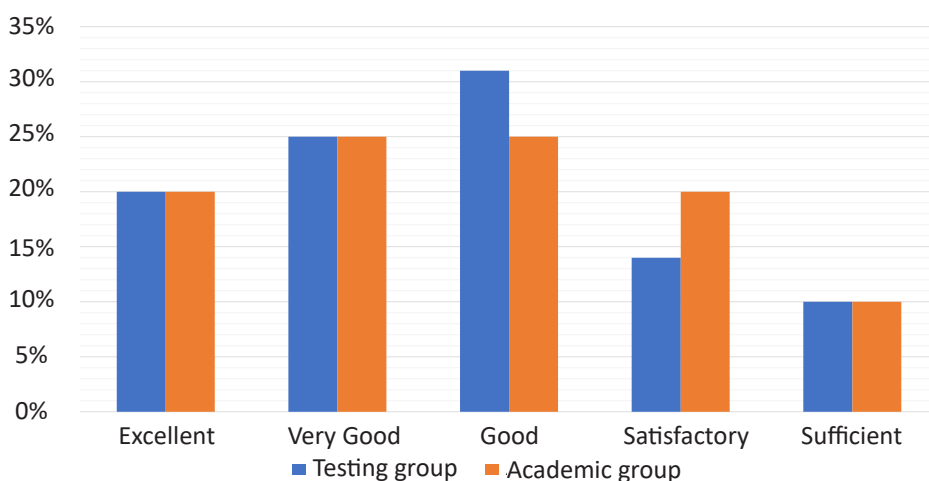


Figure 1. The dynamics of changes in academic and testing groups during the implementation of the transdisciplinary approach in teaching English professional spoken interaction to mediators

We analysed students' responses during the semi-structured interview. Fifty-three per cent of respondents indicated they knew the peculiarities of English professional spoken interaction with mediators. The most common responses were: "I know well the peculiarities of English professional spoken interaction for mediators" and "I am sure how I can interact during mediation." Over half of the 42 subjects who participated in the interview replied that they felt good about implementing a transdisciplinary approach. A small minority of respondents felt it is hard to say how they must conduct the communication during mediation. Most respondents (90% of students) felt that the

assignments they performed during the ESP course would be useful during their mediation activity. When the subjects were asked about the difficulties, only two students (about 5%) answered that the tasks were difficult, and 10% were unsure where their English professional spoken interaction would include such assignments. The overall response to the third question was surprising. Thus, future mediators experienced some difficulties in tasks where they were asked to present their vision of conflict resolution, as some of them were not sure if their decision was right, and others did not know how to present it effectively.

Table 2

The comparative results of testing in academic and testing groups after the implementation of the transdisciplinary approach in teaching English professional spoken interaction to mediators

GROUP NAME PERFORMANCE LEVEL	Testing Group			Academic Group		
	Before the course (%)	After the course (%)	Total difference (%)	Before the course (%)	After the course (%)	Total difference (%)
Excellent	19,5%	25,5%	+ 6%	19,5%	22,8%	+ 3,3%
Very good	25,5%	28,5%	+ 3%	25,5%	28,2%	+ 2,7%
Good	30,6%	35%	+ 4,4%	26,5%	30,2%	+ 3,7%
Satisfactory	14,4%	7,2%	- 7,2%	18,5%	13,5%	- 5%
Sufficient	10%	3,8%	- 6,2%	10%	5,3%	- 4,7%
Insufficient	0%	0%	0%	0%	0%	0%

It is important to note that respondents felt positive about the stakeholders' presence in the last stages of the task's performance as far as they had an opportunity to share and discuss their visions for conflict resolution with experts.

The results of our research confirm the effectiveness of implementing the transdisciplinary approach in teaching English professional spoken interaction to mediators. We selected two groups of master students: a group that used

traditional approaches and a group that implemented a transdisciplinary approach. Table 2 highlighted that the students of the testing group had better results than those of the academic group. These findings correlate favourably well with Johansson and Vinthagen (2019) and further support the idea that the transdisciplinary approach dissolves the bonds between the conventional fields of science and promotes teaching and learning around the construction of new knowledge and evolve the intersection of complex sciences in solving complex problems of society.

Mitchell et al. (2015) proposed distinguishing outcome spaces in the transdisciplinarity approach. In our study, they can be considered theory-guided, phenomena-based, and experiment-guided. The theory-guided space aims to improve the field of inquiry, i.e., the study of transdisciplinarity and its methodology. The phenomena-based space is used to generate the relevant flows of knowledge, which can combine theoretical principles with the observed experimental data and lead to predicted results. The experiment-guided space refers to the transformational learning by the researchers and involved participants, and it can be used to conduct experiments and use a defined procedure that has a level of reproduction acceptable for the scientific community, both procedure itself and its results. It stresses the importance of the simultaneous consideration of theory-guided, phenomena-based, and experiment-guided spaces in transdisciplinarity.

Of particular interest is the application of the transdisciplinary approach in teaching ESP to mediators, as far as mediation arose primarily at the intersection of legal sciences and psychology. The advantages of applying the transdisciplinary approach in teaching ESP to mediators far outweigh the disadvantages (if any arise) regarding current research in mediation is using a wide range of humanitarian disciplines such as philosophy, sociology, political science, and pedagogy.

Our study provides considerable insight into teaching English professional spoken interaction to future mediators due to the application of the transdisciplinary approach that helps to determine the circumstances that support the resolution of major social problems, for instance, conflict resolution and protection of the environment. It brings a deeper understanding of human nature and a person's existence as integrity in the surrounding world. The methodology of transdisciplinarity makes it possible to explore complex phenomena of natural and social reality based on the principles of holism and the theory of emergence (Parravicini, 2019).

There is a clear probability that the implementation of the transdisciplinary approach is efficient in teaching mediators as far as they must be ready to provide solutions to overcome the crisis in the life of modern humankind. Implementing the transdisciplinary approach forward to develop a new integral stable worldview, free from anthropocentrism, open to changes

and future planning. The assignments proposed to future mediators within the ESP course develop professional skills in conflict detection, analysis, and management that aimed at the reconciliation of opposites in the process of co-evolution of man and nature, establishment of a balance between the individual and the collective common good, and creation of fair mechanisms to ensure social justice.

Scholz (2020) defines transdisciplinarity as the “third type” of science that complements the disciplinary and interdisciplinary modes of knowledge production since boundaries between science and the sphere of practical implementation of research are not impenetrable. In this model of scientific activity, experts and experiment participants are interested in the results of these studies and are regarded as experts of equal value. Their expert position is based on practical knowledge and experience that grows out of the pragmatism of everyday problem-solving and interest in bringing up effective results; it contributes to the formation of stable communicative relationships between theorists and practitioners. The assignments influenced by the transdisciplinary approach might be based on the project work; they include the construction of non-hierarchical network connections of the participants and assume the elaboration of a single space of common action. When performing the tasks, students can use ideas from different fields and consider the mutual influence of various hypotheses and conclusions of all participants of the project work.

The findings are well substantiated by the idea that the mediators, the parties to conflict situations, and the researcher of certain mediation processes are interrelated. Lohr (2018) is correct to claim that their roles do not have explicit subject-object relations but represent a single field of interaction, where the expert can be both a researcher observing the process and a mediator and participant in the conflict.

One limitation of our research is that the interviews and experimental study were conducted only in two groups of students enrolled in the master’s programme of Igor Sikorsky Kyiv Polytechnic Institute (Ukraine). The reason for this is that the mediation field is rather new for higher institutions in Ukraine. However, due to the political situation all around the world, the demand for experienced mediators is growing; we can still state that research involving a bigger number of students in the next years could provide more convincing results to confirm the efficiency of the implementation of the transdisciplinary approach in teaching ESP to mediators.

CONCLUSION

The findings of this study support the idea that applying the transdisciplinary approach in teaching ESP to mediators corresponds to a new pedagogical perspective. Its implementation provides the basis for new methods and technologies that can be used while teaching ESP to future mediators within emergency remote teaching and assist them in obtaining advanced professional

knowledge transforming rapidly due to changes in world politics and economics. Considerable progress has been made regarding the effective development of knowledge, skills, and abilities in the oral presentation of conflict resolution ideas, which is one of the required features of future mediators. As far as our results are promising, applying the transdisciplinary approach in teaching ESP to mediators should be validated by a larger sample size.

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