



Creating an Interdisciplinary Space: Role-Plays in Teaching English for Engineering

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Abstract. When the learning process takes place in natural circumstances we usually learn what we really need, we practice what we will have to do in real life. Comparing the activities, games and improvisations used in actor training or drama in education and the role-plays, simulations and drama techniques used in language teaching we can discover several similarities regarding the main principles, goals and techniques. Communicative competence and performance can be considered the common ground of acting and language teaching, this is their overlapping goal. Teaching a foreign language to young professionals (in our case, engineering students) involves the aim to enable a person to “play” better his own “role” before a social audience. The objectives of this paper are to demonstrate some of the overlapping goals in actor training and language teaching and show how the ESP (English for Specific Purposes) classroom can function as an interdisciplinary space, the meeting point of language pedagogy, actor training / drama in education and engineering sciences, thus creating a complex learning experience.

Keywords: role-plays, drama techniques, actor training, language teaching, interdisciplinary space

Introduction

ESP teachers often have to design their own instructional materials instead of relying on commercially produced ones because in most cases ESP classes deal with the specific needs of a certain group of students. Commercially available

materials can be useful, but teachers often feel the need to complement them with other tasks and activities. In certain areas of ESP, for example in English for Engineering, the development of speaking skills seems somewhat neglected. Engineers often complain that while they feel capable of comprehending and producing written technical texts, they have difficulties in understanding and producing spoken language. Well-planned role-plays, which correspond with the specific communicative situations and various roles that engineers can encounter in their profession, could be helpful to improve their communication skills in the target language.

The following topics are discussed in this paper: the overlapping goals in language teaching and drama in education developed mainly from actor training; the fact that the common characteristics of the activities (games, improvisations, role-plays and simulations) used in these two domains offer the possibility for language teachers to adopt ideas and techniques from the other field; and the possibility for the ESP class to function as an interdisciplinary space, the meeting point of language pedagogy, drama in education and engineering sciences, thus creating a complex learning experience. Some of the results of a needs analysis will be presented as well, which was conducted in order to find out more about the language learning needs of the target population (engineering students and engineers), respectively the popularity and usefulness of role plays in ESP. This study is part of a research project which aims at the development and improvement of role-plays in ESP.

From actor training to drama in education

Improvisation in actor training is considered to be essential and according to this there is plentiful specialised literature about the topic covering both its theory and practice. Some of the actor training theorists and practitioners realised that their techniques can be used successfully in other domains, and their works are popular and widely used not only by actor trainers, but also by those who use improvisation in other fields of training and education.

Viola Spolin (1963), the well-known theatre educator, director and actress, was convinced that theatre games can be applied in any educational domain which is able to create ideal circumstances for communication and transformation. Her mentor and teacher, Neva Boyd had written the following about the potentials of games in education in her work entitled *The Theory of Play*:

Playing a game is psychologically different in degree, but not in kind from dramatic acting. The ability to create a situation imaginatively and to play a role is a tremendous experience, a sort of vacation from one's everyday self and the routine of everyday living. We observe that this psychological

freedom creates a condition in which strain and conflict are dissolved and potentialities are released in the spontaneous effort to meet the demands of the situation. (Source: 25/07/2011 <http://www.spolin.com/boydplaytheory.htm>)

Her principles were further developed by Spolin (1963) who conceived her own actor training method based on improvisation games. Some of these principles are the following: the game has its own rules; in games the process is important, the result is secondary; the correct attitude towards games is the voluntary acceptance of the rules, spontaneous, imagination-rousing participation; games call forth instinctive reactions; spontaneity is their main characteristic, which helps the manifestations of the participants' imagination, empathy, understanding of others and oneself; games protect, and at the same time liberate people from inhibitions; games stimulate self-expression; they presuppose and at the same time develop intelligence, fantasy, responsiveness, sensibility and originality; a game is a pleasant, entertaining experience, which places the individual into a world where he or she is less constrained by the norms of behaviour established by the rules of the society; the paradox of games is that they offer freedom and demand discipline at the same time; social adaptability develops in the new situations created through games; they influence positively the learning process; games must be chosen according to the needs and characteristics of the group. Spolin thinks that the problem-solving quality of games is essential.

Keith Johnstone (1989), the well-known specialist in actor training, was convinced by his own experience about the importance of improvisation, which in his opinion cannot exist without spontaneity. Johnstone blames schools, families and society for encouraging children to become unimaginative and in his book he gives deterrent examples of how spontaneity can be eliminated and inhibitions created as a result of "education". His training method aims to stop and turn back this process through improvisation and help people to get rid of the barriers and constraints created by society and to rediscover their creativity and imagination in a relaxed atmosphere.

According to Robert Cohen (1992), another acting theorist, the main conditions for good acting are trust, relaxed atmosphere, lack of inhibition, discipline, playfulness, freedom, good teamwork and effective interaction. In his opinion these factors can be useful not only for actors but also for other people in building their relationships, performing their everyday activities or professional tasks.

In the activities used in actor training a three-stepped structure can be observed: preparation (physical and mental warm up, trust building and teambuilding phase), a more complicated task or improvisation followed by evaluation and discussion.

As mentioned before, activities similar to the ones used in actor training can be adopted in other fields of education as well. The use of drama makes it possible

for the students to acquire new knowledge and develop different skills through activity and self-experience. Drama in education is a teaching method which was developed from the practice of “as if” games. This method aims to develop creativity, spontaneity and communicative competence, preparing students to face real-life situations with less difficulty.

According to Katalin Gabnai (1999), personality development is the main goal of drama in education, which is done through different situational games or role-plays. There is no audience, but the presence of peers helps students to develop self-confidence and the ability to work in a team, and prepares them to communicate more easily in real-life situations. These activities can be considered rehearsals, where the participants have to speak and perform different tasks in the middle of attention, practicing through this the readiness and inventiveness necessary in different social roles and situations of everyday life. Drama games can increase the self-knowledge and insight into human nature of people working in and for a community. Dynamic thinking, focussed and well-planned working method, and clear, coherent, emphatic way of speaking can be developed through them. They can compensate to a certain extent for the passivity generated by the development and spreading of mass media. Drama games offer collective experience, through which the participants can encounter the pleasure of self-expression and recognition and develop their decision-making and problem-solving skills.

The socialising effects of drama in education can bridge the gap between institutional education and real life, because they can help the students to acquire the necessary skills, behaviour and knowledge to improve their performance in different professions, and their ability to perform certain specific roles.

Gavin Bolton (1993), the internationally recognised drama educator and theorist of drama in education, developed a method called *drama for understanding*, which can be very useful in teaching different subjects. In these activities the participants work in groups and create an imaginary world, where they “play” different roles. In this world they encounter the same kind of problems as in the real world, thus acquiring real knowledge and experience. According to Dorothy Heathcote (1995), in drama games and role plays the acts of the participants are deeply influenced by their previous experience and knowledge. This is a complex pedagogical method through which the real problems of life can be dealt with in a protective environment, facilitating learning through experience.

It is important to emphasise that according to Bolton (1993: 86-88) there is a strong connection between drama and the acquisition and use of language and communication skills. From several viewpoints drama is the language itself, and language in drama activities is the means that helps to understand the meaning of things.

The interdisciplinarity of language teaching

The interdisciplinarity of language teaching makes it possible for teachers to benefit from the experience and knowledge accumulated in other fields. The process of language teaching and language learning is described and researched by language pedagogy, which can be considered a broad-ranging interdisciplinary applied science. According to Jenő Bárdos, the domains connected to language pedagogy are the following:

Language pedagogy		
RELATED AND ADJACENT SCIENCES	Ethnolinguistics	ANTHROPOLOGY
	Philosophy of language	PHILOSOPHY
	Acoustics	PHYSICS
	Language geography	GEOGRAPHY
	Linguistic modelling	LOGIC
	Communication engineering, telecommunication	TECHNOLOGY
	Pedagogic performing art	ARTS
	Applied linguistics Psycholinguistics Sociolinguistics	LINGUISTICS
	Neurolinguistics Anatomy Psychiatry	MEDICINE
	Didactics Pedagogic psychology	PEDAGOGY
	Language politics, language rights	POLITICS
	Psychometrics Personalistic psychology Group psychology Developmental psychology Ethnographic psychology Social psychology	PSYCHOLOGY
	History of education	HISTORY
		FUNDAMENTAL AND ASSOCIATE SCIENCES

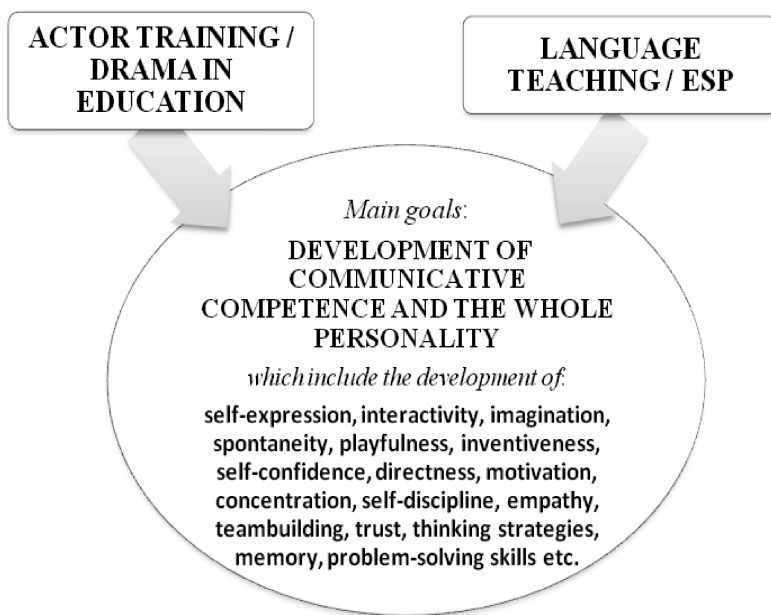
Fundamental, associated, related and adjacent sciences of language pedagogy (Bárdos 2000: 35; Bárdos 2005: 16-17 – translated by the author of this article)

Regarding arts, Bárdos mentions only “the performing art of pedagogy”. Considering the influence of actor training and drama in education upon language teaching, I think drama and theatre research would be eligible to be mentioned in this category.

If we take into consideration the numerous domains ESP deals with and the interdisciplinary research that usually precedes and prepares ESP courses, it is obvious that it would be difficult to determine the exact confines of language pedagogy.

Role-plays and drama techniques in language teaching

The fundamental common goals in the methodologies of actor training, drama in education and language teaching are the development of personality and the development of communicative strategies. Other, closely related and also important objectives are the development of self-expression, relaxation, interactivity, spontaneity, playfulness, inventiveness, self-confidence, directness, motivation, concentration, self-discipline, empathy, teamwork, trust, thinking strategies, fantasy, memory and problem-solving ability.



Consequently, actor training techniques and drama in education can be a source of inspiration for those language teachers who intend to find new ideas for role-play activities.

In his series editor's foreword to Gillian Porter Ladousse's book entitled *Role Play*, Alan Maley defines the concept of role-play in language teaching as follows:

The term “role-play” calls to mind the fable of the blind man trying to describe an elephant; the term takes on different meanings for different people. It certainly seems to encompass an extremely varied collection of activities. These range from highly-controlled guided conversations at one end of the scale, to improvised drama activities at the other; from simple rehearsed dialogue performance, to highly complex simulated scenarios (Maley in Ladousse 2009: 3).

According to Gillian Porter Ladousse (2009) in “role-play” the term “play” means that students can play a part – someone else’s or their own – in a safe environment, which assures ideal conditions for playfulness and inventiveness. Students, just like children playing doctors and patients, school or Harry Potter, unconsciously create their own reality and through this experiment with their knowledge of the real world they develop their interacting skills with others. Unlike in a theatre, in the classroom there are no spectators, and they do not feel threatened by the risks of behaviour and communication, which are present in the real world. Thus the activity is more enjoyable and playing a role in such a relaxed atmosphere can help building up self-confidence. The flexibility of role-plays opens the door to individual ideas, variations and initiatives, and develops creativity, offering direct experience of the unpredictable nature of the target language in use.

Ladousse sums up the most important advantages of role-plays emphasising their benefits and characteristics. A wide range of language structures, functions and vocabulary can be introduced and practised through role play, offering a large variety of experience and training in speaking skills in different situations. In role-plays students are required to develop and use the phatic forms of the target language which are necessary in social relationships, but which are often neglected in syllabuses. For students who are learning a language to prepare for specific roles in their professional life (e.g. in ESP) role-play can be a very beneficial rehearsal for real life tasks. They are offered the possibility to learn how interaction works in various relationships and situations. Role-plays provide shy students a kind of mask which helps them to overcome their difficulties in participating in conversations. Probably the most important factor why teachers like using role-plays in the classroom is that they are entertaining, fun for the students. Role-play develops fluency, promotes interaction and increases motivation.

The main difference between a role-play in the classroom and a dramatic performance is that the first is mainly concerned with the process of playing a part and not the finished product. The students are not performing and there is no stage or other audience but the other players or colleagues. They carry out the activity for themselves, in a team where ideally everybody is equally involved. As humanistic tendencies in education have shown, the learning process can be more efficient in a

tension-free atmosphere. In task-based language teaching students are encouraged to solve problems together, which makes exchange of opinions and common decisions indispensable. In certain cases, when it is considered beneficial, role-plays *can* be performed for other students, and they can be recorded. The video might be useful in the follow-up, but only if the students feel comfortable with such methods.

The follow-up or debriefing is an important part of the activity where the teacher should insist on evaluation rather than criticism, encouraging positive thinking about the experience. Errors and misunderstandings can be discussed and clarified through analysing the interaction and highlighting some of the uses of paralinguistic features.

Role-plays in language teaching can contain dramatic features and techniques to different extent. According to Wilga Rivers, the drama approach enables students to use what they are learning with pragmatic intent, which would be really difficult to learn only through explanation (Rivers 1983).

Alan Maley and Alan Duff (1991: 6), experts in this field, define dramatic activities in a language classroom as follows:

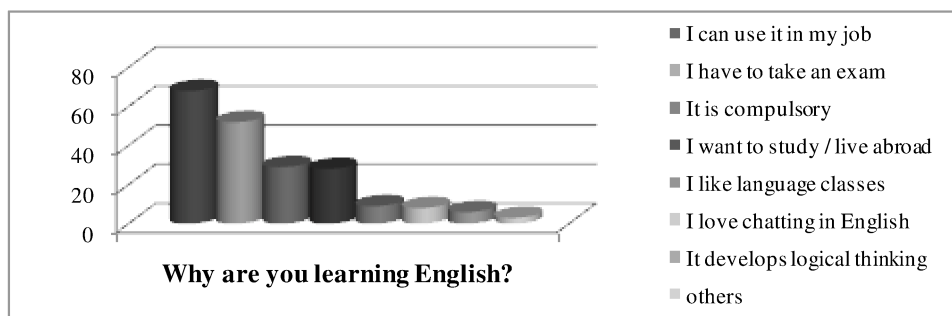
They are activities which give the student an opportunity to use his or her own personality in creating the material on which part of the language class is to be based. These activities draw on the natural ability of every person to imitate, mimic and express himself or herself through gesture. They draw too, on the student's imagination and memory, and natural capacity to bring to life parts of his or her past experience that might never otherwise emerge. They are dramatic because they arouse our interest, which they do by drawing on the unpredictable power generated when one person is brought together with others. Each student brings a different life, a different background into the class. We would like students to be able to use this when working with others.

According to them, most traditional textbooks give little attention to the skills we need most when using a language: adaptability, sensitivity to tone, speed of reaction, insight and anticipation, in one word: appropriateness. This neglected emotional content can be put back into language through drama, giving more attention to the real *meaning* of the structures that are being taught.

Needs Analysis – Role-plays in Teaching English for Engineering

A part of the results of a needs analysis are presented hereinafter, which was conducted with 106 engineering students and engineers regarding their language learning needs and the popularity and usefulness of role-plays in learning ESP.

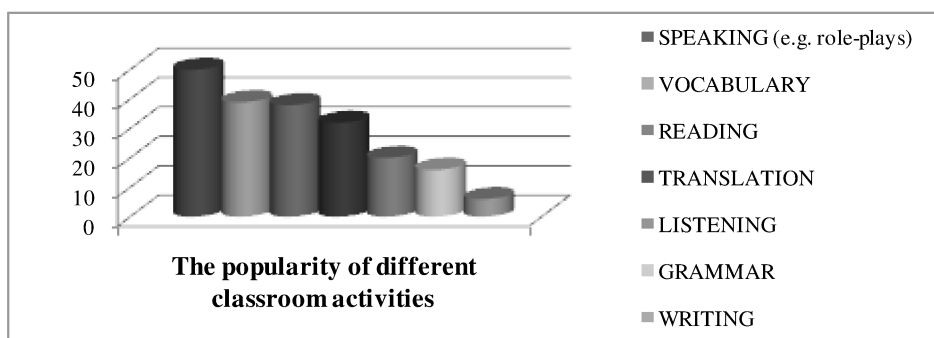
To the multiple-choice question “Why are you learning English?” most respondents (68) chose the answer that it could help them in their profession. The degree of importance of other possible goals can be seen in the chart.

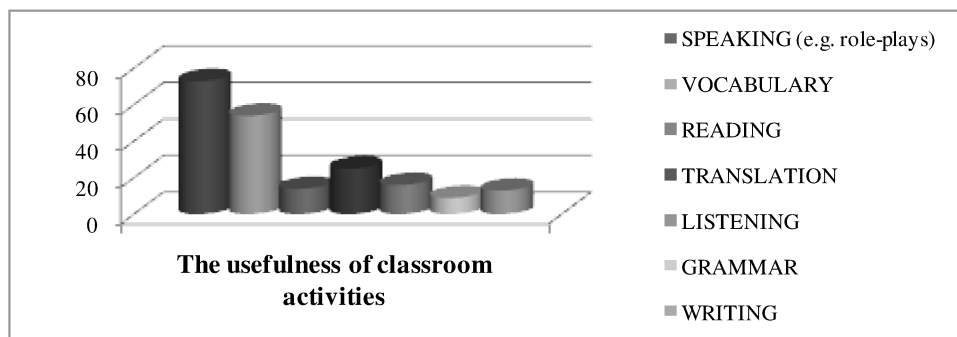


The goals chosen most frequently confirm the importance of the use of tasks developing professional communication skills.

From the answers to other questions it could be concluded that there is a notable need for opportunities to practice and develop speaking skills because of the following reasons: in language exams listening and speaking parts were considered to be the most difficult; the majority of the respondents think that their speaking skills in profession-related situations are less developed than their other skills and they do not have enough opportunities to speak in English. This attracts the attention to the necessity of using more communicative activities in the ESP class (role-plays, simulations, etc.).

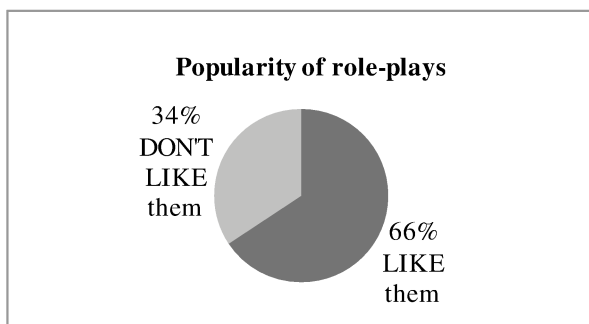
To a question regarding the popularity and usefulness of different classroom activities the following results emerged:





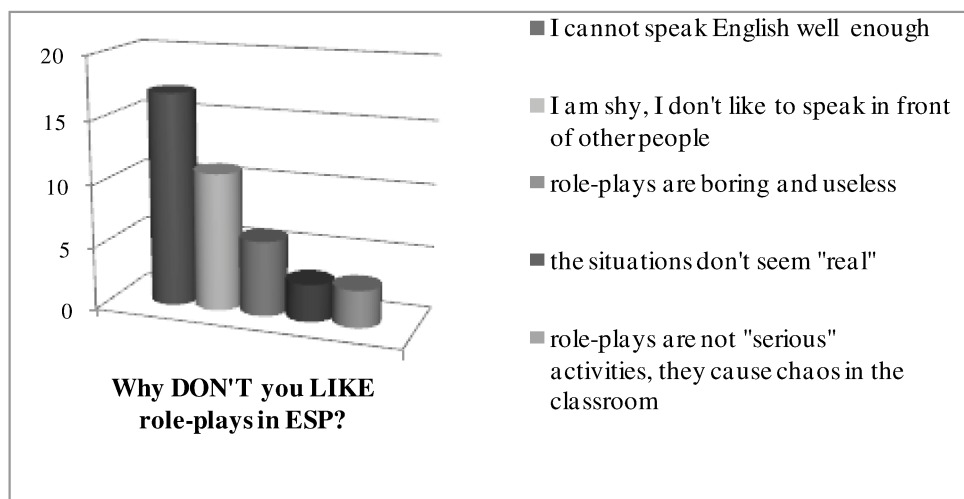
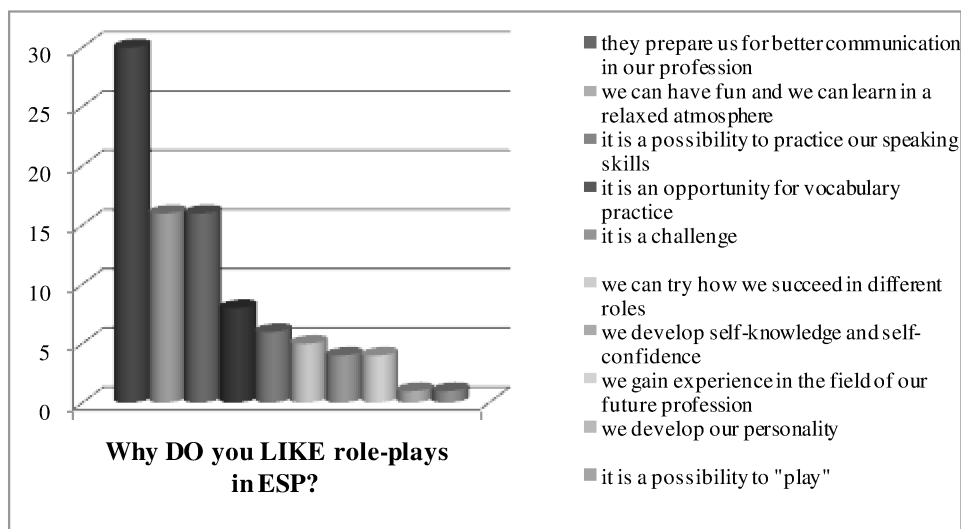
Speaking activities, which include role-plays, proved to be the most popular and useful, but a significant difference can be observed between the number of people who liked them most (50 respondents) and who considered them the most useful (73 respondents). Therefore it would be important to plan these activities in such a way as to make them enjoyable for more students. Drama techniques could be of great help in this endeavour.

A question referred to the popularity of role-play activities in ESP classes. The respondents were asked whether they liked role-plays or not. They were also asked to give reasons for their answers.



The reasons they gave to the question why they like or do not like role-plays were grouped into categories. There were answers which were enlisted into two or even more categories.

A great number of respondents like role-plays in ESP because they think these activities prepare them for better communication in different profession-related situations. A lot of them like this type of activity because they feel more relaxed and like to have fun while studying. The development of speaking skills and vocabulary (terminology) practice were also frequently mentioned.

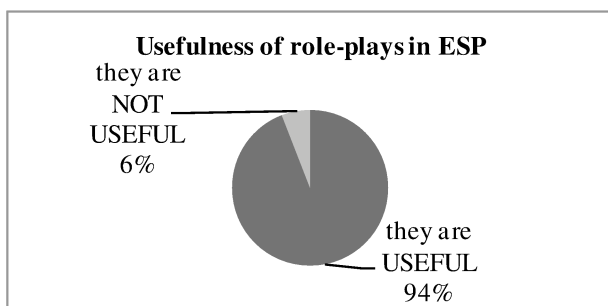


The reasons given by the respondents who do not like role-plays in ESP must be seriously analysed and taken into consideration in the development and planning of such activities, because one of the main goals of development would be to eliminate these problems.

Regarding the first problem, the activities should be suitable to the level of the group so that they would not cause frustration. In this way the participants would soon realise that this is a great possibility to practice speaking. Shyness and fear of speaking in front of others can be overcome if we manage to create a friendly atmosphere where the students feel emotionally safe and ready to help each other.

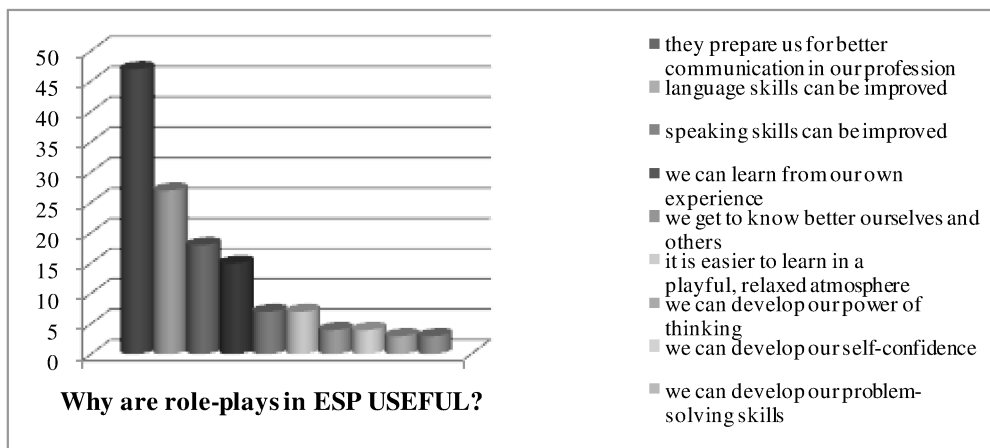
To make the role-plays seem less “boring” or “useless” can be a great challenge for the teacher. Here the warm-up phase preceding the “main activity” gains more relevance and importance. It is also important to choose the topic carefully, according to the needs and interests of the group. This helps to create the feeling of “reality”. If everybody is actively involved and interested in the role-play activity there should be no more “chaos” or disciplinary problems than in any other profession-related situation. The use of ideas and techniques from the field of drama in education could be of great help in improving the quality and popularity of role-plays in ESP.

Another question referred to the usefulness of role-play activities in ESP classes. The respondents were asked whether they considered them useful or not. They were also asked to give reasons for their answers.



The reasons they gave to the question why they consider role-plays in ESP useful were grouped into categories. There were answers which could be and therefore were enlisted into two or even more categories. Very few respondents did not consider role-plays useful, so the reasons they gave were not grouped into categories.

We can see that the reasons given to support the usefulness of role-plays in ESP confirm the ones from the specialised literature. It is important to emphasise that the vast majority of the respondents think that role-plays in ESP are useful, even those who do not like them. From the 35 people who declared that they did not like role-plays only 6 did not consider them useful. This fact draws the attention to the necessity of better planning and development of these classroom activities in order to make them enjoyable to all our students. Otherwise role-plays may not serve their purpose adequately.



Conclusions

Engineering students and engineers have to be prepared to use English within workplace, professional, or academic environments. In ESP the target language is studied to ease the way to enter these environments, or to gain greater communicative efficiency within them. Developing, planning and facilitating role-play activities in certain domains of ESP (e.g., English for Engineering) require an interdisciplinary approach from the teacher. The meeting point of three domains can be observed here: language pedagogy, theatre and drama techniques in education and engineering science. Designing role-plays might be challenging and time consuming for the teacher, but taking into consideration the needs and the profession-specific communicative situations, which our students will encounter in their future profession, this teaching technique can prove to be successful. Role-plays in ESP classes must reflect the problems, situations and tasks which can occur in their professional environment. These activities can reach their purpose only if students enjoy them and participate actively in them. Drama techniques can be of great help in achieving these goals. The next step of this project is to develop role-plays with the help of drama techniques.

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