

Review research paper

ESP AS A HOLISTIC APPROACH TO EDUCATION - CLASSROOM PRACTICE ILLUSTRATION

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Abstract. *The authors advocate major change in the conceptualisation of English for Specific Purposes courses. While the foundational premise of any ESP instruction is highly focused on a particular professional/scientific field and thus narrow as opposed to the concept of language as an ontology, we hereby claim that an ESP course can be successful in its preset outcome and at the same time significantly upgraded towards the notion of language as a tool for not only expressing the fullness of being, but also as a language instruction methodology that significantly improves mental capabilities and social awareness in students. ESP understood and practiced as a narrow, focused approach to language teaching does not necessarily pay attention to the development of any other intellectual or psychological aspect of a student. Authors disagree with the educational policies that proclaim particularised knowledge output of language studying process. We show that with appropriate teaching methodology the teaching of ESP can be (re)turned to holistic education that is the innate nature of language.*

Key words: *English for Specific Purposes, teaching methodology, holistic education, intellectual capacities enhancement, culture*

1. LANGUAGE AS ONTOLOGY

Language is the expression of the highest mental powers of a human. It is at once the expression of those and the very essence of thought, for there is no thought without language. This is a general formal-logical theory of language, referred to as ontology (the nature of reality in philosophical terms) due to this causal role of language which at once reflects ontology and ontology reflects the totality of the world. The expressions of language have therefore dual ontological nature due to the functional aspect of language itself (descriptive, representational and referential functions of language) and the logic of the extra-linguistic ontological counterparts (the objects it refers to). This is the knowledge – language – reality relationship where all three segments are at once present

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and one cannot exist without the others. This means that what we learn, know about our reality is at once thought and expressed in language. Language at once represents human knowledge that is obtained in the process of cognizing reality, and is a means of description of such cognized reality. Getting to know the world around us necessarily involves logic and rational thinking processes – mental capabilities at the same time lying in the core of language structure and use. To describe the reality, language reflects its structure within its own structure which is undoubtedly related to that of the cognized world. Language we use is conditioned by the formation of knowledge that is obtained in the process of getting to know, interpreting the reality.

This referencing to philosophical concepts of ontology and language interdependence serves to make a contrast with the idea of English for Specific Purposes (and any Language for Specific Purposes for that matter) which is considered to be a form of “restricted” language. The founding theorists of ESP, Hutchinson and Waters (1987) explained that this approach to language teaching is determined solely by students’ reasons for learning, their needed professional linguistic environment. This being the primary rationale for any given ESP course, it follows ESP is directly related to the professional requirements of a job market economy where a participant, employee, needs to excel in the given profession and its communicative aspect. The restricted side of this form of instruction becomes obvious. Unlike language as a whole which relates to the totality of human experience (‘reality’), here only one fragment is worked on and developed.

This focused output in turn is confirmed as desired by numerous higher education (HE) policies (e.g. Bologna declaration). These state confirmed policies require HE institutions to clearly state and of course vouch their output will be specialized knowledge and the related skills in a clearly and precisely delineated domain. This certainly is commendable as the graduated students will be highly equipped for work in that particular domain and will have adequate communicative means to express and transfer the expertise. The authors do not challenge these assumptions, for they are in truth aligned with the contemporaneity. *Our intention is to demonstrate these goals can be achieved in a way that surpasses them and opens up even this type of educational setting and instructional process towards wider, non restricted education that at once fulfills preset educational goals of the given HE institution and bears characteristics of holistic education.* By this we mean education that is not confined to one particular field of human knowledge and professional activity. *The methodology we propose aims at developing mental potential of students.* While indeed working on the content of a single domain, by making students conscious of the intellectual benefits of that particular methodological approach, it develops transversal skills and wider awareness that are needed for any field of human existence and not restricted to the given profession for which students are preparing. Thus this methodology at once implies work on the given professional and scientific communication setting, but in intellectual gains it is a form of holistic education.

Rather than explain theory of this approach we will illustrate it through concrete examples of classroom work. *Each practice will showcase that while working on appropriate linguistic expression of particular ESP domain content knowledge students simultaneously work on enhancing a particular transversal, intellectual capacity.* The authors believe, and prove this in their teaching practice that development of intellect, cognizance, expression, appropriate social responses and interaction, constitute holistic education. By holistic education we mean thorough preparation in terms of knowledge for the future job, and work on the mental, psychological, cultural traits of the students,

making them aware that one's improvement in all these fields is a life-long process and that it should be an inherent and also life-long need. In other words, we believe that within the rather focused educational aims of the higher education institutions, there is enough space to develop essential capacities in students which delineate them as truly educated, socially attentive and aware. We propose that this need to be the next stage in the theory and practice of teaching languages for specific purposes.

The method of instruction that we advocate is Socratic (Stojković, Zerkin 2023). It directly stimulates deep understanding of the existing knowledge in students, making connections with the new knowledge presented by various ways – deduction, referencing, making analogies, and alike, all serving as great potential for intellectual growth. This is accompanied with other insights, mainly related to social interaction and knowledge of culture.

2. CLASSROOM PRACTICE

2.1. Self research skills and independence

We begin the course by an introductory self presentation on where and what student study. Professor asks what the English official name of the university is, then faculty, department. Students mostly guess by translating directly from their mother tongue. In order to come up with the correct example, they are told to do the web search. Students do not expect that as they are used to tacit prohibition of using any auxiliary resources other than their own knowledge. However, we continue this practice in further classes. Thus, for example, students may search for words, for proper pronunciation of new terminology, and alike. We explain to them that unlike what may be conditionally called traditional class where that would not be allowed, we much rather believe in the benefits of simulating a real life, outside classroom situation, where they would naturally look for assistance performing websearch. Students practice websearch, learn where to find plausible information, and begin to be able to rely on themselves in a novel or challenging professional situation. We are aware these example practices are on a small scale, yet we are positive that instilling the feeling of safety in students, their knowledge that they can be sure they would find a proper answer, is satisfactory.

Another instance when students (further) acquire these characteristics and competencies is a class on discourse analysis. Students are shown how to use AntConc software. The simulation situation is that they have obtained a prestigious job in a company that deals with some specialized equipment which they are unfamiliar with and so do not know the relevant terminology. They are advised to obtain all textual material on it, starting from company's brochures to in-house documentation. Then, they should run it through the AntConc. The terminology, phrases, collocations, examples of use within sentences that the software returns would be enough for them to appear an informed novice at their new job. Here again students are not only taught professional related lexis, but also self confidence, knowing they have a retreat in case they find themselves lacking certain vocabulary and/or the use of it and where to resort to if such a case occurs. Students are aware of the high probability of this scenario and appreciate this practice.

2.2. Social interaction

A few times during the course, we have discussion classes. We agree on simulating the classroom is a company meeting room. The professor withdraws and is only a silent observer. The simulation can be a discussion on applying a new software solution or alike. As the class unfolds, the professor does not interfere in any way, but after the practice is over, there is a joint, professor guided reflexion, discussion, assessment of the performance. The first class is most relevant as then the issues that need most attention working on show in their fullest.

In the beginning professor sets the topic together with the students. It is important that the simulated situation is the one they are all intellectually comfortable with, and they are told this. Such exercise does resemble those of debating, yet in our case that is not the highlight. Instead, here students need to apply the discourse, genre, rhetoric of the science they study in the formulation of domain content loaded arguments. This is a language practice that on the linguistic level combines stylistic and logical argumentation. This is one layer.

There is a huge gap between passive knowledge of scientific and professional English in these students, which they show in writing, and their spoken performance of it. When practice like this begins this shows in all its starkness. Professors intentionally begin students speaking practice in this group format. When it has been practiced enough, highlights of it internalized by students, then we proceed to individual speaking practice.

Collective speaking practice is important to observe from every aspect. Students usually sit scattered around the classroom. Professor announces the beginning of the practice and withdraws. The simulation of company employees talk is begun by the most self confident, most communicative student, aware that their language mastery is sufficient for them to feel free in such an environment. He/she initiates and then leads the conversation, prompting other students to state what they think. Then a few other students become more active, while the majority remains very passive and even do not say anything during the whole class.

After the work is done, we together analyse the performance. Practice has shown that this reflection phase is better done on the next class. When asked to assess the overall performance and to analyse it, the majority begins by commending the student who established themselves a leader of the group, and then those who also took part in the exchange. They admit the majority was passive and that therefore they would underscore in actual circumstances.

Professor then focuses questions on the leader and the rest, asking students to elaborate on this relationship that was established. This requires a string of coveted leading questions for students to realize that following may, and often does mean – submissiveness. This is an example how a work on language leads to insights into social dynamics, recognition of its nuances and reflection on its profound meaning. Students received practice into higher order thinking and social skills. They internalize this lesson and make decisions for themselves on their own behavior.

This type of class is repeated after a short while for both the professor and students to observe if and how the lessons learned at the initial class are adopted. This practice is done towards the end of the first semester.

2.3. Simulation of giving a professional talk

Second term is largely dedicated to students' work 'instead' of the professor. This means simulations are now more vivid as most of talk is done by students. That includes lecturing – when new textual unit is to be done, we turn it into students' presentation, imagining they are delivering a talk about a professional issue/topic to audience of a certain kind. They may be company fellow employees, executive board, convention presentation, and alike. The choice of 'audience' is up to students. They decide whom they need for audience according to what they believe and desire to be their future professional setting. Authors claim that this practice is far richer in benefits than what is commonly referred to as 'presentations practice'.

Students have previously been taught that the organization, structure of their talk and the choice of terminology directly depends on whom they talk to. In other words, they should have internalized rhetoric and genre in the first term and are to apply now in their presentations - lectures.

The new text unit thus is to be delivered orally, in front of the class – audience. The available technology is used, lap top and projector. After the presentation, the whole class analyses it in every aspect, the content, communication of it, communication with the audience, behavior, posture. The rare pieces of advice previously given by the professor relate to how to keep the voice articulate in a large space and how to keep the attention of those present focused. This is done also with the Socratic method – professor asks students – can you all hear me well? Always? To which the answer is positive. Then the professor asks – yet do I shout? How do I achieve this in a space that is this large? Students then realise that articulation is the key. Then, questions relate to if the professor has students' full attention at all times, and again the answer is yes. When asked how, students have difficulties to pinpoint the reason. Professor then praises them for being well mannered and kind, but discloses what they do not realise – looking each and every student in the eye while lecturing. This is what makes them feel they would be rude to look away or down in their phones – and they listen to the lecture. This psychological manoeuvre is valuable knowledge for their future profession.

Like previously described practice, this one is also done twice by the same students. When first time presenting, a friend of the student records their performance on their phone. This is for their own reflection and often does lead to students being willing to repeat the practice. In situations like this they realize, most likely when reviewing the video, that their posture is inadequate (moving, fidgeting), that their clothes largely influence that (girls in jeans and sport shoes), and alike. Then, questions and comments of colleagues help them realize their weak and strong sides in relation to the topic in question. Students admit, more importantly, realize fully, that coming in front of the audience is a complex intellectual and psychological challenge. Thus, second time students lecture we witness different clothes, still latest fashion of that generation, but more appropriate for a professional environment, firmer body postures, adequate articulation, eye contact with every colleague present in the room, and more profound preparation of the topic. Most importantly, all learning happens in the form of peer learning and self reflection, thus inherent students' qualities are improved. In addition to a significant extent they overcome stage fright of speaking before expert audience. With this practice we as professors rest assured they are ready for the real professional situation of this kind.

2.3.1. Attentiveness to others

Previous exercise is extended to include attentiveness and responsiveness to others. In the group there is a boy with severe issues with his legs, he walks with the help of an assistant, and once he sits for the class, he does not get up. He agreed to give a lecture of the kind described in the previous subchapter. As he does not move he opened his laptop and the presentation slides could only be seen on his screen as the projector could not be connected. He started his talk. Students were sitting, as usual, scattered round the classroom, some in front, some aside and some behind the boy talking. Professor did not interfere. This was all intentional and pre-designed. Then, as the talk started to unfold, students realized something was not adequate. That could be seen in their inquisitive looks directed at the professor, as if for help or clarification. So, then professor, in the Socratic manner, stopped the talk and asked students about their reaction to the given situation – if they hear well enough, see the illustrations, if all is adequate. Then they realized the essence of this particular practice – and they moved to sit close and around the boy so as to hear and see his screen.

In the ensuing reflection conversation upon this they said they then realized it is their responsibility to be attentive to others and respond adequately to make them feel well. All were happy to have adopted this.

2.4. Rewriting the unit

Providing good teaching material in the form of relevant, up to date texts, is of utmost difficulty for most ESP courses. There is a limited availability of material, of texts or teaching units in textbooks, provided either by publishing houses or written and published by universities with ESP courses for which those textbooks have been prepared. The list of textbooks used by the authors is the following:

- *Basic English for Science*, Oxford University Press, 2000
- Emmerson, Paul, *Email English*, Macmillan, 2004
- Esteras, Santiago Remacha, *Infotech – English for Computer Users*, Cambridge University Press, 2009
- Gitsaki, Christina, Taylor, Richard, P., *Internet English – www-based communication activities*, Oxford University Press, 2000
- Glendinning, Eric, H., Glendinning Norman, *Oxford English for Electrical and Mechanical Engineering*, Oxford University Press, 1997
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- Kovačević, Darko, *English Language for Electrical Engineers 1: General Concepts*, Elektrotehnički fakultet Univerziteta u Istočnom Sarajevu, Akademska misao, 2021
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- Rebenko, Marina, *English Proficiency in Cybernetics – B2-C1 – Textbook for Students of Computer Science and Cybernetics*, Ministry of Education and Science of Ukraine, Taras Shevchenko National University of Kyiv, 2017
- Ricca-McCarthy, Duckworth Michael, *English for Telecoms and Information Technology*, Express Series, Oxford University Press, 2009
- White, Lindsay, *Engineering – Workshop*, Oxford University Press, 2003
- Živković, Slađana, Stojković, Nadežda, *English for Students of Information and Communication Technologies*, Univerzitet u Nišu, Elektronski fakultet, 2012

While admittedly huge effort is invested in writing such material, it can be used in a different HE institution only to a certain, limited extent, due to the basic premise that it is written to suit the exact profile of the given institution. In our case of shared experience of Harbin Institute of Technology, China, and Faculty of Electronic Engineering, University of Niš, Serbia, we use parts of the same textbooks, same units. However, while the topics are adequate, the very structure of the text – information organization is not. Namely, in both institutions, profound attention is paid to appropriate, genre specific rhetoric. And that is lacking from almost all textbooks the authors have examined.

The following strategy has been adopted. We work with units from various sources, having chosen them for their topic and relevant vocabulary. In the second half of our worktime with one generation of students, when we focus on students' independence, we practice what is most valued as material design in ESP – students creating the teaching material. This is done in the second semester as in the first they have learned the typical information flow, the rhetoric of the hard sciences genre. Now they can combine the relevant vocabulary and phraseology they find in the given unit and the structure they have learned previously.

This practice is highly motivating for students. It comes when they have grasped the genre, its essential qualities, and have realized what kind of English they are studying – the proper tool for expressing, transferring their expertise. Here they are invited to showcase their domain knowledge. Unlike domain courses where they are assessed in everything they do or say by a professor who knows incomparably more, in this setting they have a professor who knows incomparably less – and all their hindrances disappear. They exhibit sincere joy in immersing into the topic and modeling it as now they are true experts with complete freedom.

The regulatory force here is peer monitoring, and at the same time, independent and group work at the same time. This practice is most profound, all encompassing regarding all the work done in the course. It combines their domain knowledge expressed in English using scientific vocabulary, typical syntactic structures. Then, all the information is presented in an orderly way according to relevant rhetorical models.

Very often, the practice starts from rewriting the unit with the aim to actually reorganize the given information, but develops into writing a fully new piece. This new text is written by mutual intellectual effort, all information is assessed together, each definition and explanation made perfectly clear and correct. For all these reasons, this practice is the test of what has been achieved in the course.

And it can be enriched even further. Certain topics can be viewed from the perspective of their influence on the society, thus raising issues of psychology, sociology, ethnography, responsibility.

Finally, a text produced by students substitutes the initial unit and becomes a mandatory text for the exam.

2.5. Reading books

In order to expand the scope of the course further, to include topics related to students' personalities, societal issues, and alike, and yet remain within the professional and scientific domain, and work on the communication improvement, the authors introduced reading books. Here, we come most closely to achieving holistic education. The book we first practiced with is Edward Snowden's *Permanent Record*. It is also appropriate to use science fiction books, as is the further plan of the authors.

The book *Permanent Record* is in part an autobiography and in part a critique of the misuse of surveillance by the government of USA. The biographical part prior to narration of his work for the intelligence office is easy to read. The second half centers on Snowden's highly classified work and there are the two major reasons for having students read this particular book. One is the explanation of the surveillance software and Snowden's bypassing it leaving no electronic trails when he decides to steal the evidence in order to disclose it to the public. The other concerns his mental turmoil and the effect his deed has for the humanity.

Students work on this book on multiple levels. Firstly, they read, mark and learn new words. This they do on their own, without professor reminding them it would be good. For the professors this is an indicator they are interested in the task and that the learning discipline and learning habits have been well established. Secondly, there is a period of about month and a half given for them to read this. During that time, they are invited to office hours as they progress through the book to present what they have read and what their impressions are. Finally, there is a discussion in the classroom, much like analysis of a literary piece. Students' reactions are profound and original and the conversation is much enjoyed by everyone. Some comment on the fact that no one teaches them how what they do can be misused against the common good, some point to the fact that the main protagonist is truly torn between signed loyalty to the agency he works for and his beliefs and ideals. Points are made about the inner, psychological battle of Snowden, but also of his girlfriend and other members of his family. A large portion of the discussion centers upon disentangling how he actually succeeded in downloading the information without leaving an e-footprint, and this is where students' domain issues are considered.

Before assigning the book, professors explain that this activity brings extra points for the final grade, to acknowledge the work and to motivate students. However, once this whole work has been completed, there is an obvious satisfaction in them with what they have achieved. This goes beyond exam and grade motivation, this relates to nourishing enthusiasm and pleasure for independent work, this is holistic education.

3. CONCLUSION

The overall teaching approach of both authors is to fulfill preset syllabus outcomes, namely to prepare students for active communicative involvement in the professional and scientific environment of their chosen domain. In that, we pursue the tenets of ESP. Having studied the theory and practice of this approach to language teaching and compared and contrasted it with our teaching setting – the actual needs and potentials of our students, both as future professionals and personalities, we have found out that ESP can and should be much more than a 'restricted language'. We do teach professional language, but at the same time practice transversal skills, a form of non verbal way of

communicating one's personality and attitudes. With this, we transform and transcend mere ESP towards holistic education, and we advocate it as adequate for tertiary educational setting in particular. Rather than prepare students to possess only proficiency of professional language, we strive to educate them to be complete individuals, able to perceive environment and respond to it, join it creatively. It goes without saying that 'pure' ESP would also result with students able to actively and productively join their surrounding – yet relying on their own personality formed not so much at ESP classes but elsewhere. In addition, we fear years of higher education without holistic approach can 'silence' the students in their enthusiasm and need to express their potentials, to contribute more to their surrounding. We emphasise enriching ESP towards holistic approach to education in general as the teaching practice that produces individuals who are better prepared to enjoy their future work, giving their maximum, but also taking pleasure from the interaction. It is our belief that in the time of sometimes harsh competitiveness taking pleasure in one's capabilities, success, ease at work, does contribute to the overall advancement of a society.

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