

Transference of Knowledge in Interlinguistic Communication: A Teaching and Learning Experience in Classroom Situations

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Ἐν οἴδᾳ ὅτι οὐδὲν οἴδᾳ
(I know one thing that I know nothing)
Socrates

ABSTRACT¹

In this study, the writer, through her own twenty-four (24) years of teaching experience at a non-English University, discusses how challenging the transference of knowledge in interlinguistic communication is, that is, when non-English students, researchers, academics want to transfer knowledge from their local knowledge-based environment to a wider knowledge-based environment that uses English as a means of international communication (*lingua franca*). During her discussion, the author of this study shows that in order for the transference of knowledge in interlinguistic communication to be successful there must be three support systems: (1) a Human Intelligence (*nous*) who functions as a helper and/or mediator; (2) Artificial Intelligence (AI) in various forms; and (3) a mnemonic knowledge management tool (TDB) in an electronic form so that human knowledge acquired is not lost.

Keywords: knowledge, interlinguistic communication, inter-scientificity, reverse inter-scientificity, Terminological Data Bank (TDB)

1. DEFINITIONS

Knowledge: Although there is no consensus on a definition of knowledge, the author of this study has chosen UNESCO's definition because it is related to *learning*; this definition reads as follows: "Knowledge is central to any discussion of *learning* and may be understood as the way in which



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² For the notion of *glocal* and *glocalisation*, see R. Robertson [2], [3], [4], [5], [6]. Within the present context,

individuals and societies apply meaning to *experience*. It can therefore be seen broadly as the *information, understanding, skills, values, and attitudes acquired through learning*. As such, *knowledge is linked inextricably to the cultural, social, environmental and institutional contexts* in which it is created and reproduced" (emphases added) [1].

Interlinguistic communication describes the relations that speakers of different languages have established through ages and their ways of communicating across language barriers.



In the next section the writer of this paper will discuss from a linguistic and Translation Studies point of view what challenges people (such students, researchers, academics) face when they want to transfer their knowledge acquired from their **local** knowledge-based environment (that uses the local language – e.g. Greek, Spanish) to a wider **global** knowledge-based environment (that uses English) or the other way around. In other words, what linguistic difficulties people face and what they should do to overcome them when they move between *global* and *local* or *glocal*² knowledge-based environments.

2. TRANSFERENCE OF KNOWLEDGE FROM THE GLOBAL LANGUAGE (ENGLISH) TO THE LOCAL LANGUAGE (GREEK, IN THIS CONTEXT) IN AN ESP³ CLASSROOM SITUATION

At non-English universities, undergraduate and graduate students, researchers and academics usually should search for and read a substantial number of references

glocalisation is understood as diverse types of inter-relationship and interdependency between local and global linguistic and cultural processes, which reveal the impact of the global (English as *lingua franca*) upon the local (in the present context, Greek).

³ ESP: English for Specific Purposes.

written in English (the global language or *lingua franca*) and use the knowledge they have acquired through extensive reading in oral presentations and essays written for their parallel courses whose language of instruction is a language other than English. The same is valid for Greek Universities, and, more specifically, at the University of the Aegean where the author of this study has been teaching ESP in Departments such as: Geography, Cultural Technology and Communication, Social Anthropology and History, Sociology for the last twenty-four (24) years. Moreover, some of these students, researchers and academics are strongly interested in participating in Erasmus schemes and international conferences, where they should perform totally in English. Therefore, how can an ESP teacher, help Greek primarily undergraduate students to move with ease between *glocal* (*global* and *local*) knowledge-based environments?

The discussion about knowledge generation and communication in the following sub-section is based on the writer's twenty-four (24) year experience in teaching ESP undergraduate students in the Departments of the above-mentioned Greek University.

Three levels of Knowledge Generation

From the author's experience in ESP at the University of the Aegean, knowledge can be generated at three different levels:

- (1) When students do not understand something and are puzzled, they usually ask critical questions so to understand **WHAT** is that they should learn/know [**Negative Feedback**];
- (2) When the ESP teacher becomes fully aware of **WHAT** students do not understand or seem that they do not know, and s/he tries to find ways or techniques to help them; and
- (3) Through this kind of effort, the ESP teacher usually draws upon his/her previous knowledge acquired from TRANSLATION STUDIES [**Positive Feedback**].

On the one hand, students become *learners* of new information and *knowledge* by acquiring new skills and start becoming slowly but steadily *independent learners*.

On the other hand, the ESP teacher (the author's case) is made to become an *active learner* herself, when she truly wants to help her students and gets out of her **COMFORT ZONE** (see Figure 1 below). She explores the "unchartered waters" of "academic uncertainty", faces the possibility to make mistakes (**FEAR ZONE**), experiments with new teaching methodologies she has never practiced before, learns new things (**LEARNING ZONE**) and grows intellectually (**GROWTH ZONE**). Thus, the ESP teacher (the author's case) becomes a *creative learner*, once she realizes that *she doesn't know everything* [as Socrates claims *Ἐν οἷδα ὅτι οὐδὲν οἷδα - I know one thing that I know nothing*]. In other words, she

understands that *there is always room to learn/know something from her students and other people*.

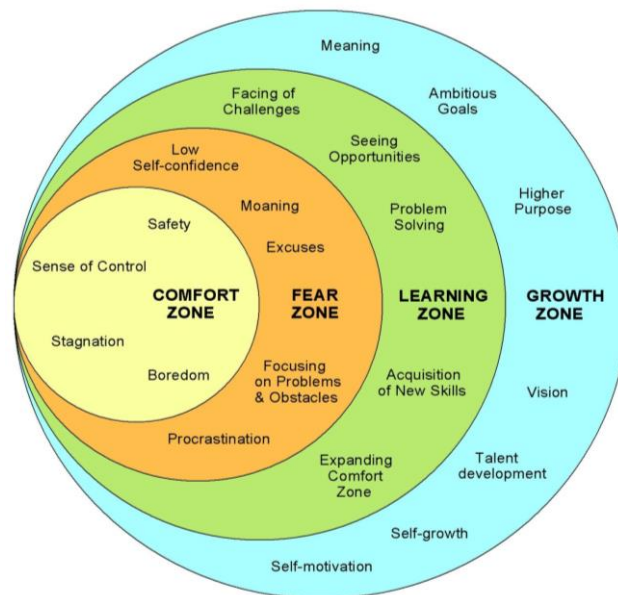


Figure 1: Different Zones of Learning [7]

Knowledge Generation, Communication and Management in an Interlinguistic classroom situation and its relation to 'Inter-scientificity' (English: Greek or any other local language)

The teacher's statement and the students' question [Negative Feedback]: In the first ESP class in the various Departments the writer of this paper teaches, she usually states that: "*Geography / Social Anthropology and History / Cultural Technology and Communication / Sociology is a discipline*". For so many years now that she has been making the statement, she has seen her students being stupefied, asking the question: "*What does 'discipline' mean in this sentence?*" [Negative Feedback]. Although she allows them to use a general printed bilingual dictionary [8] and/or general on-line bilingual dictionaries, which have all the Greek equivalents of the word *discipline*, her students still cannot extract the correct meaning.

Educational interaction and a creation of a new teaching technique as the ESP teacher's learning experience [Positive Feedback]: The first time when the author of this study had this Negative Feedback, she realized that she had been too presumptuous, because she assumed that her students would know the three Greek equivalents of '*discipline*' (Figure 2), and that they would be able to select the correct equivalent by matching its respective meaning within the specific context in which the teacher used the word.

Thus, her students' stupefaction [Negative Feedback] had made the teacher aware that, whereas this frequent term

(with various meanings) in English scientific discourse, in the Greek discourse it acquires *polysemy*, that is, can be rendered in different terms that are called *polysemes*. It had also forced her to reflect upon how to help her students to understand that there is not a one to one (1: 1) equivalence between the English and Greek scientific discourses or knowledge-based environments [SELF-REFLECTION].

But, how on earth, could **the ESP teacher** attain that? After some minutes of thinking, she:

- (1) decided, to show her students **WHERE** to find the different Greek terms (i.e. in bilingual printed and/or on-line dictionaries and materials);
- (2) discussed with them how one can decide **WHICH** Greek term is the most appropriate in the specific scientific context, sharing with them some of my background knowledge of TRANSLATION STUDIES;
- (3) constructed a sample of a bilingual (English: Greek) Terminological Data Bank (TDB) for her students (Figure 2),⁴ where the one English term is in **bold face** and its three different *polysemes* or *terms* in Greek are in *italics*; and

Discipline: (1) *πειθαρχία*. (2) *επιστημονικός κλάδος, τομέας γνώσεων*. (3) *(πειθαρχική) ποινή*.⁵

Figure 2: Three different Greek *polysemes* of the English term ‘discipline’

- (4) explained to them that in Greek there are three different *polysemes* or *terms* for the single term discipline in English, which are used in different scientific and social contexts with different significations. For example, the first term [Fig. 2, (1)] signifies “behavior in accord with rules of conduct” ([9]: 409, nos: 5 and 6 respectively), whereas the second term [Fig. 2, (2)] is literally translated as “a scientific field, a branch of knowledge”. Last, the third term [Fig. 2, (3)] is literally translated as “corrective punishment” (adapted from [9]: 409, no. 3).

Nevertheless, while discussing with her students about the Greek *polysemy* of the English term discipline, some students drew her attention to the fact that **discipline** in English can also be used as a *verb* in a specific linguistic and scientific environment, whereas in Greek it cannot. At that point, **the teacher** was taken by surprise because **she** had not thought of that, and, at the same time, **she** was really glad to see that that classroom interaction had been a teaching and learning experience on both sides – that is, her students became her **“teachers”** (that is, independent

learners), whereas she, as the **ESP teacher**, became a **“student” of her students**, that is, an active learner.

Finally, as a teacher and translation scholar, the writer of this paper observed that, although her students consulted general bilingual printed and/or on-line dictionaries, they could not select the right meaning right away either because they did not know how to use bilingual dictionaries or because they only looked at the first equivalent, as presented in Figure 2, (1). This last observation made her *intensify her efforts to help her students to be able to know WHERE to find, and HOW to choose and use the appropriate Greek term* if they come across with another English term such as **discipline** [PROBLEM SOLVING through INTERACTION and KNOWLEDGE TRANSFERENCE].

Interrelation between Knowledge and ‘Inter-scientificity’: The above discussion assumes that, when there is an interlinguistic communication between two different knowledge-based environments, that is, between English (the global language) and Greek (or any other local language), apart from existing interdisciplinarity and interculturality, there is an issue of ‘inter-scientificity’ (or ‘inter-scientific competence’). The terms ‘inter-scientificity’ or ‘inter-scientific competence’ are neologisms, which were coined and introduced by the writer of the present article, first, in 2004 [10], and then they were discussed more thoroughly in [11].

At this point, it should be noted that ‘scientificity’, the second compound of the term, is used to indicate the application of linguistic methods and principles *either* to overcome problems of ‘untranslatability’ of scientific or domain-specific terms *or* to solve the problem of linguistic asymmetries between a pair of different linguistically scientific fields – for example, English: Greek, English: French, Arabic: Greek etc. The problems of ‘untranslatability’ or existing linguistic asymmetries are usually created by the *polysemy* of scientific discourse in a *globalised* context – that is, when the *global* meets and interacts with the *local*. These issues are also common in Translation Studies and should be dealt with by translation scholars and practitioners [12], if ‘scientific’ communication between two different linguistically scientific discourses (thus, ‘inter-scientific’) is to be achieved.

Therefore, in an ESP non-English teaching context, ‘inter-scientificity’ is meant a skill acquired by a non-English student or researcher who can distinguish between various readings of a *polysemous terminological entity* (or *polyseme*) in English and can render it and use its equivalent polyseme or term accurately his/her own mother tongue (e.g. Greek). *In other words, it is the linguistic competence of a non-English university student*

⁴ This can be done in any pair of languages, as it is claimed in [24].

⁵ Adapted from [8]: 144-145.

or researcher to move at ease at least in *two* linguistically different knowledge-based environments (e.g. English: Greek or any other local language).

3. TRANSFERENCE OF KNOWLEDGE FROM THE LOCAL LANGUAGE (GREEK, IN THIS CONTEXT) TO THE GLOBAL LANGUAGE (ENGLISH) IN AN EAP⁶ CLASSROOM SITUATION

Knowledge Generation, Communication and Management in an Interlinguistic classroom situation and its relation to ‘Reverse Inter-scientificity’ (Greek or any other local language: English)

In this section, the discussion about knowledge generation, communication and management is also based on the writer’s twenty-four (24) year experience in teaching EAP undergraduate students at the University of the Aegean (Lesvos, Greece), but it is slightly different from the previous section because knowledge acquired in the local language of instruction (Greek in this case) should be transferred and communicated in the global language (i.e. English). Thus, it is the ‘reverse’ side of the previous section.

Three levels of Knowledge Generation

From the author’s experience in teaching EAP at the Greek University, knowledge can be generated at three different levels:

- (1) When non-English students: (a) use an English term in their own oral presentation or writing inaccurately due to the literal translation of the term from their language of instruction (which is different from English) into English [**Negative Feedback**], and (b) ask the teacher critical questions (**WH**- questions) so to understand **WHY** they are wrong, **WHICH** the accurate term is, **WHERE** they can find it, **HOW** they can recognize it;
- (2) When the EAP teacher [this is the author’s case] becomes fully aware of **WHAT** students do not understand/know and tries to find ways or teaching methodologies to help them [**Positive Feedback**].
- (3) Through this kind of effort, the EAP teacher usually draws upon her previous knowledge acquired from TRANSLATION STUDIES.

On the one hand, students become *learners* of new information and *knowledge* by acquiring new skills (such as comparative, contrastive and discriminatory) and start becoming slowly but steadily *independent learners*.

On the other hand, the EAP teacher (the author’s case) becomes an *active learner* herself, when she truly wants

⁶ EAP: English for Academic Purposes.

⁷ *Faux amis* or *false friends* are a word or expression in one language that, because it resembles one in another

to help his/her students and gets out of her **COMFORT ZONE** (as discussed in the previous section and shown in Figure 1) exploring the “unchartered waters” of “academic uncertainty” and tries to grow intellectually (**GROWTH ZONE**). Thus, she becomes a *creative learner*, once she realizes that *she doesn’t know everything* [as Socrates claims *Ἐν οἷδα ὅτι οὐδὲν οἷδα* - *I know one thing that I know nothing*]. In other words, she understands that *there is always room to learn/know something from her students and other people*.

Knowledge Generation, Communication and Management in an Interlinguistic classroom situation and its relation to ‘Reverse Inter-scientificity’ (Greek or any other local language: English)

The students’ wrong use of an English term, and the teacher’s correction [Negative Feedback]: The students of EAP classes in all the Departments the author of this paper has been teaching have repeatedly misused the English term ‘*theme*’ instead of ‘*topic*’ for the Greek term **θέμα**, when they are required to present orally and/or to write an essay in English; see Figure 3 below.

Educational interaction and a creation of a new teaching technique as the EAP teacher’s learning experience [Positive Feedback]: To the EAP teacher’s correction and comment that – if they make this mistake in different Erasmus schemes or graduate classes in an English-speaking country, or when they present their research in an international conference whose working language is English, there will be a total breakdown of communication [Negative Feedback], her students are dumbfounded and ask **WHY**.

Then the writer of this paper usually creates a sample of a ‘reverse’ bilingual (Greek: English) TDB, as shown in Figure 3, where the Greek term **θέμα** is in bold face and its three different English equivalent *terms* (or *polysemes*) are in *italics*; at the same time, she provides her students with a sentence with the appropriate context in use. One explanation of this pitfall may be that ‘*theme*’ is closer to **θέμα**, since it cognates from it or because both terms can be considered *faux amis* or *false friends*, as they are called in Translation Studies ([13], p. 139)⁷ – or they *do not know* the linguistic, domain specific and cultural context of the English term, that is, they are not aware of the English knowledge-based environment.

Θέμα: (1) A *Topic* of an essay. (2) A *Theme*, as in ‘thematic units.’ (3) An *Issue*, as in “there is an issue here”.

Figure 3: Three different English *polysemes* of the Greek term **θέμα**

language, is often wrongly taken to have the same meaning [13].

Within the above-described classroom situation and the interaction between the EAP teacher and her students, the EAP teacher became aware that *that classroom interaction had been a teaching and learning experience on both sides – that is, her students, although they were **dumbfounded in the beginning** [Negative Feedback], became her “teachers” and independent learners, whereas she, the ESP teacher, by creating a reverse TDB [Positive Feedback] became a “student” of her students and an active learner.*

Interrelation between Knowledge and ‘Reverse Inter-scientificity’: The above discussion assumes that, when there is an interlinguistic communication between two different knowledge-based environments, that is, between Greek (or any other local language) and English (the global language / *lingua franca*), apart from the presence of interdisciplinarity and, there is an issue of ‘reverse inter-scientificity’. The term ‘reverse inter-scientificity’ is a neologism, which was coined and introduced by the writer of the present article from 2019 until 2022 [14]-[22] in a reverse interlinguistic communication (e.g. mother tongue/local language: English/global). ‘Reverse inter-scientificity’ is usually created by the *polysemy* the existing asymmetries produce between two different linguistic discourses. In other words, ‘reverse inter-scientificity’ is a skill acquired by a non-English student or researcher who can distinguish between various readings of a *polysemous terminological entity* (or a *polyseme*) in his/her own mother tongue (e.g. Greek) and can render it and use its equivalent polyseme or term *accurately* in English. *In other words, it is the linguistic competence of a non-English researcher to move at ease at least in two linguistically different knowledge-based environments (e.g. Greek or any other local language: English).*

4. SUCCESSFUL KNOWLEDGE COMMUNICATION

Sections 2 and 3 of the present study reveal that in order for knowledge communication in an interlinguistic situation (not only in ESP/EAP classes but also in international conferences like IIS) to be successful requires:

1. A **sender** – *nous* or Human Intelligence (HI), who can be a mediator and/or helper (**WHO**); see [18], [19], [20] and [22];
2. A **receiver** (*nous* or HI) (**WHOM**); see [18], [19], [20] and [22];
3. A **message** (**WHAT**); and
4. A **medium of communication (channel of communication – through WHICH)**, which may be not only human language or any other semiotic system but also part of Artificial Intelligence (AI) (e.g. google translate); or
5. as it is shown in Figure 4:

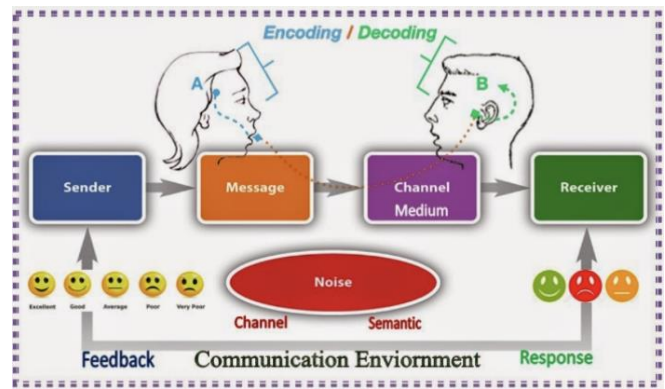


Figure 4: A diagram of successful knowledge communication [23]

Within this framework, if there is positive interaction between the sender and the receiver, knowledge communication is successful. By claiming that it is meant the following:

1. The **sender**:

- (a) becomes aware of the receiver’s **lack of knowledge**;
- (b) is willing to fill in the **gap of knowledge**, by building upon the **receiver’s existing knowledge** [or, as it is known, **scaffolding**] and by considering the receiver’s usually Negative Feedback. In such a way, the sender practices **humility**; and
- (c) s/he tries to find/experiments with **new teaching methodologies** [Positive Feedback], by getting out of his/her COMFORT ZONE (Section 2, Figure1).

Through these intellectual and teaching processes, the **sender** from a TEACHER is transformed into a STUDENT/LEARNER.

2. The **receiver**:

- (a) becomes aware of his/her **lack of knowledge**; s/he gives Negative Feedback, thus, being transformed from a STUDENT into a TEACHER;
- (b) is willing to fill in the **gap of knowledge**, by becoming a LEARNER;
- (c) s/he tries to follow the sender’s instructions to understand WHAT s/he is going to learn/know. In such a way, the receiver practices **humility**.

Through these intellectual and teaching processes, the **receiver(s)** from a LEARNER is transformed into a TEACHER.

From the writer’s twenty-four-year experience as an ESP/EAP teacher, it is conspicuous that in *successful knowledge communication* there is **ALTERATION OF ROLES**, that is, a **sender** (an ESP/EAP teacher or a researcher - *nous* or HI) becomes a student of his/her students, and a **receiver** (a student - *nous* or HI) becomes a teacher of his/her teacher, *as long as trust has been developed through time, and humility is practiced by both sides.*

3. The **message**, that is, **WHAT is communicated in WHICH language by WHOM** (answers to **WH**-questions). In an interlinguistic communication when English and non-English interlocutors [i.e. the sender and the receiver] participate, the communication of the **message** (usually scientific discourse) depends primarily on: (a) interlocutors' ability to convey the message properly; and (b) on their intercultural competence.

The **medium of communication**, when it is related to:

- (a) **human language**, then it is similar to **WHAT** is discussed in "the message" in the above paragraph;
- (b) **any other semiotic system** (e.g. movies, the theater, TV shows), there must be a short explanation of the semiotic system so that interlocutors understand it and, therefore, knowledge of it can be successful; and to
- (c) **part of Artificial Intelligence (AI)** (e.g. google translate). In this case, interlocutors should be very cautious because issues of the *polysemy of scientific discourse* may be involved, which are related to the concepts of *inter-scientificity* and *reverse inter-scientificity* (as discussed in Sections 2 and 3 of the present study). As it is claimed in [18] (p. 153), an AI "can neither perceive nor understand a socio-cultural situation or what is involved in the interaction of different socio-cultural and scientific situations, within the context of international inter-disciplinary research and education". *In other words, noes (or Human Intelligences) that use AI in interlinguistic communication should be really cautious whether what they want to communicate to wider scientific community is expressed properly.*

5. SUCCESSFUL KNOWLEDGE MANAGEMENT

Having discussed about **on whom** and **what** successful knowledge communication depends, the author of this study is going to discuss about **on whom** and **what** successful knowledge management in interlinguistic communication relies (answer to **WH**-questions).

1. The **sender's** willingness to get out of his/her **COMFORT ZONE** (as discussed in Section 2 and shown in Figure 1), make mistakes and learn from them as well to think of new and creative approaches to managing issues at hand.
2. The **receiver's** willingness to get out of his/her **COMFORT ZONE** (as discussed in Section 2 and shown in Figure 1) and follow the sender's instructions.
3. A **medium** to store/save the knowledge acquired [usually a kind of Artificial Intelligence (AI), which can also function as a **sender/mediator** (see the second sub-section below).

In other words, knowledge management is contingent on the answers given to the following sequence of questions: **WHO** creates / stores, **WHAT** (data / information /

knowledge acquired) **for WHOM** and **WHY** (for **WHAT REASON**)?

Within the context of this study, the writer of this paper has claimed that a **bilingual Terminological Data Bank (TDB) of any orientation** – that is, from English to the local language (Section 2, Figure 2 – *inter-scientificity*) or from the local language to English (Section 3, Figure 3 – *reverse inter-scientificity*) – can be a **translational and mnemonic tool for life** and **very critical** for storage of knowledge acquired for those who find themselves in interlinguistic communication, that is, in situations that they have to move between to, at least, different linguistically knowledge-based environments.

This mnemonic tool is constructed and maintained in very simple terms, so that any user can use it with major difficulties. As the step-by-step procedure is described in [24], the mediator/future user is a human being (*nous* - HI) who:

1. Opens a Word Document [part of AI], which also functions both as a **medium** and another **mediator**;
2. Codifies his/her writing (the **medium**); that is:
 - (a) Writes English terms in **bold face** - see as an example Figure 2 [a case of inter-scientificity] or terms in another language (e.g. Greek) in **bold face** - see as an example Figure 3 [a case of reverse inter-scientificity];
 - (b) Writes equivalences in another language (e.g. Greek) in *italics* - see as an example Figure 2 [a case of inter-scientificity] or English equivalences in *italics* - see Figures 3 [a case of reverse inter-scientificity]; and/or
 - (c) Inserts any other useful information in English or any other language (e.g. Greek) s/he thinks s/he may need in the future.

6. LIMITATIONS OF THIS STUDY

Although the author has taught undergraduate Greek students and discussed with post-graduate fellows and colleagues how to use the knowledge they acquire when moving between, at least, two different linguistically knowledge-based environments (English and Greek and vice versa) by advising them to construct and maintain bilingual TDBs [i.e. English: Greek (as in Figure 2) and/or Greek: English as in Figure 3)] so that they can become inter-scientific competent, she has come to realize that there are three (3) cognitive and educational limitations.

ESP/EAP teachers at a non-English University

They resist in using the language of instruction (which is different from English), when it is required, although they know that their undergraduate students should move in TWO different ways (possibly at the same time – but not necessarily):

1. From the global language (bibliographical references written in ENGLISH) to the local language of the instruction (e.g. Greek or any other language) – in the form of an ORAL PRESENTATION and/or a WRITTEN ASSIGNMENT. This is the case of ESP and *inter-scientificity*, as discussed in Section 2 of this study, that is, how knowledge acquired (i.e. terminology in ENGLISH) can be transferred in the LOCAL LANGUAGE/DISOURSE (i.e. Greek or any other local language).
2. From the local language of the instruction (e.g. Greek, Spanish etc.) to the global language of communication (ENGLISH as *lingua franca*) --- in ERASMUS EXCHANGE PROGRAMS and/or INTERNATIONAL CONFERENCES. This is the case of EAP and *reverse inter-scientificity*, as discussed in Section 3) of this study; how knowledge acquired (i.e. terminology in the LOCAL LANGUAGE of instruction) can be transferred in ENGLISH (the global language of communication).

This resistance comes from two basic reasons:

- (a) The ESP/EAP teachers at a non-English University are not usually trained in recognizing and being able to deal with issues of the *polysemy* of language in general and scientific discourse in particular, whose expression are the concepts of '*inter-scientificity* and *reverse inter-scientificity*, as discussed in the present study. An ESP/EAP teacher can recognize this issue only if s/he is a trained translation scholar, a translation practitioner and/or a lexicographer; and
- (b) They do not want to get out of their **COMFORT ZONE** (as discussed in Section 2 and shown in Figure 1) because they *either* feel academically uncertain *or* are afraid of 'losing face' by making mistakes. In such a way, ESP/EAP teachers miss the opportunity to become *students of their students* and *creative learners* and, eventually, they do not grow intellectually.

Non-English undergraduate students

Undergraduate students do not fully appreciate what they learn and the competencies they acquire in the ESP/EAP classes; that is, WHERE to find equivalences of difficult terms (in English and/or in the local language) and HOW to organize the knowledge they acquire in constructing and maintaining a bilingual TDB (Figures 2 and 3 are good examples). Although undergraduate students do a bilingual TDB as a part of their ESP/EAP final assignment, they find it *time consuming* and *boring* at times. It usually takes students 2-3 years of studies and a vast number of bibliographical references in English so to fully understand what they learned in their ESP/EAP classes.

Graduate fellows and academics at a non-English University

They are usually disinterested in issues of *polysemy* of scientific discourse, thinking that it is irrelevant to their specialization. They prefer to write a paper for prospective

publication and have it either translated into English or edited. Consequently, they may have an international publication in English but, when participating in international conferences, they have hard time to communicate orally their research to an international audience.

7. CONCLUSIONS

As the writer has tried to show in this paper, **transference of knowledge in interlinguistic communication** – it does not matter whether it occurs in a non-English classroom situation or in an International Conference organized by the International Institute of Informatics and Systemics – is a challenging situation that requires rigorous mental processes and a very good background knowledge in two, at least, different linguistically knowledge-based environments.

For the success in transferring this knowledge, there must be at least three support systems, as shown in the previous sections:

- (1) A **human helper or a mediator (nous or HI)** (ESP/EAP teacher or a specialist in Translation Studies or Lexicography); that is Human Intelligence (HI or a *nous*) [18], [19], [20], who can help other humans (*noes*) to attain a successful inter-linguistic communication;
- (2) A **machine helper or a mediator** in various forms; that is Artificial Intelligence (AI) [18], [19], [20]; and
- (3) The **construction of a mnemonic tool for Knowledge Management** – such as a bilingual Terminological Data Bank (TDB) of any orientation, as shown in Figures 2 and 3 and as discussed in [24] – so that humans (*noes* – HIs) can store the knowledge they have acquired during their lifetime by not taking the risk losing it due to fading memory.

The interaction of these three support systems manifests their **interdependence** in knowledge generation, communication and management showing that not a single *nous* (HI) or AI can declare that has acquired 'absolute knowledge'. Thus, as the author of this study firmly believes, acquisition and transference of knowledge requires awareness of the Socratic "*Ἐν οἷδα ὅτι οὐδὲν οἷδα*" - *I know one thing that I know nothing* – that is, **human openness to humility!**

8. REFERENCES

- [1] UNESCO, **Rethinking education: towards a global common good?** <https://unesdoc.unesco.org/ark:/48223/pf0000232555>, 2015, p. 16
- [2] R. Robertson, "Globalisation or glocalization?" **The Journal of International Communication**, Vol. 1, No. 1, 1994, pp. 33–52.

- [3] R. Robertson, "Glocalization: Time-space and homogeneity-heterogeneity" In M. Featherstone, S. Lash and R. Robertson (Eds.) **Global Modernities**. London: Sage, 1995, pp. 25-54.
- [4] R. Robertson, (2004). 'The conceptual promise of glocalization: commonality and diversity. *Artefact*.' At: http://artefact.mi2.hr/a04/lang_en/ (accessed August 6, 2018).
- [5] R. Robertson, (2006). "Glocalization." In R. Robertson R and J.A. Scholte (Eds.) **Encyclopaedia of Globalization**. Vol. 2. New York: Routledge, 2006, pp. 545-548.
- [6] R. Robertson, "Situating glocalization: a relatively autobiographical intervention." In G.S. Drori, M.A. Höllerer and P. Walgenbach (Eds.) **Global Themes and Local Variations in Organization and Management: Perspectives on Glocalization**. New York: Routledge, 2013, pp. 25-36.
- [7] Figure 1: Different Zones of Learning; available at: <https://innobatics.gr/en/comfort-zone/>
- [8] D.N. Stavropoulos and A.S. Hornby, **Oxford English-Greek Learner's Dictionary**. Oxford: Oxford University Press, 1989.
- [9] **Webster's Encyclopedic Unabridged Dictionary of the English Language**. New rev. ed. New York: Gramercy Books, 1983.
- [10] E. Nikolarea, "ELT for Social Sciences students at non-English universities." In R. Wilkinson (Ed.) **Meeting the Challenge of Multilingual Higher Education**. Maastricht: University of Maastricht Press, 2004, pp. 251-263.
- [11] E. Nikolarea, "Inter-scientificity' in interdisciplinary fields, such as Geography: A case study of ESP at a Greek University." **ESP Across Cultures**, Vol. 3, 2006, pp. 66-77.
- [12] Chr. Maginot, "Untranslatable Text: Myth, Reality or Something else? A Translator's Reflections on Translation and "Untranslatability"." **ATA Chronicle** (May, 2015), pp. 19-23. http://www.atanet.org/chronicle-online/wp-content/uploads/4405_19_maginot.pdf (assessed on September 7, 2018).
- [13] G. Mounin, (Ed.), **Dictionnaire de la linguistique**. Paris : Presses universitaires de France, 1974 and in «Quadriga» n° 153, 1993.
- [14] E. Nikolarea, "Challenges in ESP/EAP Teaching at a Greek University: 'Inter-scientificity' in interdisciplinary fields." **Research Papers in Language Teaching and Learning**, Vol. 10, No 1, 2019, pp. 427-440; available at: <https://rpltl.eap.gr/current-issue/volume-10-february-2019>
- [15] E. Nikolarea, "Cognitive Problem Solving tools in a *glocalized* academic environment – Two Case Studies in a non-English academic context." **13th International Multi-Conference on Society, Cybernetics and Informatics (IMSCI 2019)**. Vol. 1. IMSCI, Florida, USA, 2019, pp. 26-32.
- [16] E. Nikolarea, "Intellectual Rigor and Beyond: Inter-Disciplinary Communication in a *Glocalized* Context". Eds. **Nagib CALLAOS, Hsing-Wei CHU, Jeremy HORNE and Thomas MARLOWE. SPECIAL ISSUE: Rigor and Inter-Disciplinary Communication**. *Journal of Systematics, Cybernetics and Informatics*, Vol. 18, No. 1, 2020, pp. 162-174; available at: <http://www.iiisci.org/journal/sci/Contents.asp?var=&next=ISS2001>
- [17] E. Nikolarea, "Cognitive Problem-Solving Tools in a Glocalised Special and Bilingual Education Environment." Eds. V. Chiou, L. Geunis, O. Holz, N.O. Ertürk, F. **Voices from the Classroom: A Celebration of Learning**. Shelton Münster, New York: Waxmann, 2021, pp. 216-227.
- [18] E. Nikolarea, "The Interface of *Nous* and Computer in Inter-disciplinary Research, Communication and Education." Co-Editors: **Jeremy HORNE and Nagib CALLAOS. SPECIAL ISSUE Inter-Disciplinary Research**, Vo. 19 No.7, 2021, pp. 57-81; available at: <https://www.iiisci.org/Journal/SCI/FullText.asp?var=&id=ZA6300W21>
- [19] E. Nikolarea, "Human Intelligence (HI –*Nous*) and Artificial Intelligence (AI) in ESP/EAP Teaching and Editing of Inter-Disciplinary Research for International Communication – Case Studies and Methods." Co-Editors: **Rusudan MAKHACHASHVILI, Ivan SEMENIST and Nagib CALLAOS. SPECIAL ISSUE Inter-Disciplinary Research and Communication. Journal of Systematics, Cybernetics and Informatics**, Vol. 19, No. 8, 2021, pp. 24-38; available at: <https://www.iiisci.org/Journal/SCI/FullText.asp?var=&id=SA636OK21>
- [20] E. Nikolarea, "Human Intelligence (HI –*nous*) and Artificial Intelligence (AI) in ESP/EAP teaching and editing of Inter-disciplinary Research for International Communication. Case Studies and Methods," **Proceedings of the 25th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2021**. Vol. II; available at: <https://www.iiis.org/CDs2021/CD2021Summer/papers/SA636OK.pdf>
- [21] E. Nikolarea, "The Translator's Black Box: Cognitive Challenges in Inter-Linguistic and Inter-Disciplinary Communication," **Proceedings of the 26th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2022**; available at <https://www.iiis.org/CDs2022/CD2022Summer/papers/CK852VC.pdf>
- [22] E. Nikolarea, "Human Vis-à-Vis Artificial Intelligence in Trans-Disciplinary Research." Co-Editors: **Nagib CALLAOS, Jana Thomas COFFMAN, Carol CUTHBERT and Wendy KROPID. SPECIAL ISSUE Trans-Disciplinary Communication. Journal of Systematics, Cybernetics and Informatics**, Vol. 20, No.1, 2022, pp. 86-101; available at: <https://www.iiisci.org/Journal/SCI/FullText.asp?var=&id=IP149LL21>

- [23] R. Merizalde, “I didn’t hear you – Communication”; available at: <https://www.govloop.com/community/blog/i-didnt-hear-you/> (assessed on December 11, 2024)
- [24] E. Nikolarea, “Creating a Bilingual Glossary for Translators”; available at: <https://www.translatum.gr/journal/3/translator-glossary2-en.htm>