

An Integrated Approach of TBLT and GBP to Medical Translation Instruction: A Suggested Model

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Received: March 25, 2022

Accepted: April 16, 2022

Published: April 19, 2022

doi:10.5296/ijl.v14i2.19677

URL: <https://doi.org/10.5296/ijl.v14i2.19677>

Abstract

Producing an accurate translation means communicating meaning successfully to target text's recipients. It also implies preserving the various relations (i.e., how each linguistic form suggests meaning with regard to a specific context) that the source text exhibits. Hence, translators should first analyze the source text before producing its translation. Medical translation is a technical translation and includes various text types that do not form a homogenous group. However, translator trainers focus only on one text type in class, and less exposure to other text types is expected. The current proposal is based on a needs analysis, based on two types of questionnaires, unstructured interviews, and document analysis of course descriptions and specifications, that aimed at identifying translators' target needs at the English Language Program at the college of Languages and Translation (COLT). Thus, this article suggests an integrated approach of Task-Based Language Teaching (TBLT) and (Genre-Based Pedagogy) GBP for medical translation instruction where attention is paid to text analysis. As TBLT enhances interactivity, critical thinking, problem solving, learner autonomy, etc., GBP encourages the exposure to various genre conventions and enhances textual analysis. The suggested integrated model is of three stages (i.e., pre-tasking, tasking, post-tasking including reporting, analysis, revision, and reflection) and ensures activating a number of components in the translation competence. Besides proposing a model to follow in class, the researcher designed a syllabus that gives importance to certain genres (e.g., forms, emails, policies, terms and conditions, reports, etc.), skills (e.g., using dictionaries, having good research skills, using technology, and time management), and evaluation criteria.

Keywords: GBP, Medical translation, Tasks, TBLT, Translation competence

1. Introduction

Translation is about communicating meaning. However, for meaning to be communicated successfully, students should be competent in the two involved languages. Based on this, translators should first analyze the source text before producing its translation. In other words, they should understand how each linguistic form implies meaning in relation to context. The process of relating form to meaning becomes very complex when one considers a translation task involving two languages. Further, in translation courses, translation instructors may draw translator's attention to such relations in the source text but fail to produce a translation that exhibits the same relations with reference to a specific social context. Thus, a source text of the genre of reporting information may be produced as an explanation, and the opposite is true especially between text types of subtle differences. What complicates the problem is the tendency of instructors to stick to one type of texts in class. In other words, they do not attempt other genres especially those required by the workplace. Thus, the present study is based on the results yielded by previous research conducted by Salamah et al. (n.d.). More specifically, the researcher suggests an integrated model of task-based language teaching (TBLT) and genre-based pedagogy (GBP) for teaching medical translation in English as a Foreign Language (EFL) classes.

TBLT is adopted because of the advantages it offers. For example, TBLT is based on students' needs (Long & Crookes, 1991) and enhances the use of authentic texts (Long & Norris, 2000). Additionally, it has proven that it improves student writing (Willis, 2009), encourages group work (Ellis, 2000), prompts learners to interact (Pica et. al., 1993), negotiate meaning, and solve problems (Prabhu, 1987). On the other hand, GBP is another approach that emphasizes that the relation between form and meaning should be made explicit to students. It motivates teachers to expose students to the writing conventions peculiar to text types (Paltridge, 1994). GBP is popular in the literature for teaching writing (Yasuda, 2011; Hyland, 2007), and this justifies why the researcher has chosen it to teach a written translation (i.e., medical translation). The following section will dwell upon the field of medical translation (i.e., the definition of the field besides its typical genres), a brief history of medical translation, the intricacies associated with translating medical texts, the central role of textual competence in translation, the theoretical and the historical background of the TBLT model, the common procedures associated with the model, the concept of *task*, task-based approach in teaching translation, GBP, and TBLT needs analysis.

2. Medical Translation

Medical translation is one of the several types of technical translation. It involves a complex process where one cannot achieve a good translation of a text without sufficient knowledge of the target language, its medical terminology, and more importantly of the field of medicine. Hence, it is a multidisciplinary field that includes knowledge of pharmacology, surgery, specialties (i.e., nephrology, cardiology, gynecology, obstetrics, psychiatry, etc.), law, and administration. Thus, translated medical texts do not belong to a single text type or form a homogenous discourse, and therefore they can be textbooks assigned to medical students, case studies, articles, reports, research papers, case histories, leaflets, brochures, prescriptions,

and the like (Karwacka, 2015).

Each genre type is a form of communication, and they all describe a specialized type of discourse called "medical discourse." According to Gotti (2008), specialized discourse is "the specialist use of language in contexts which are typical of a specialized community stretching across the academic, the professional, the technical and the occupational area of knowledge and practice" (p. 24). Gotti's definition gave rise to three important factors that determine the quality of a translated text such as the user (i.e., the recipient), the way language is used, and the domain in which language is used (e.g., medicine).

For potential users, there are two types of communication: between experts themselves and between laymen and experts (Karwacka, 2015). For the former group, typical genres are research papers, discharge summaries, case studies, imaging reports, etc. For the latter, it is common to translate leaflets, consent documents, forms, questionnaires, manuals, instructions for using a specific medical device, etc. The first type of genres is marked by the use of medical terminology, passive, long sentences, the third person to denote impersonal tone, nominalization, and pre- and post-modification (Askehave & Zethsen 2000). The second group of genres, on the other hand, is characterized by using less complex terminology (e.g., *bleeding* for *hemorrhaging*, *high blood pressure* for *hypertension*, *fever* for *apyrexia*, etc.).

2.1 A Brief History of Medical Translation

The role of medical translation in history cannot be ignored. Latin was the language of medicine in the second century, whereas Greek was the language of medical instruction till the third century (Fischbach, 1998). Latin and Greek were the two main codes used for scientific writing for about 2,000 years (McMorrow, 1998). Every civilization has its own record of medical writing and disseminating such medical knowledge was the responsibility of medical translators. Medical writing was translated to other languages such as Arabic, Hebrew, Syriac, and Farsi (McMorrow, 1998). In the seventh century, Baghdad had a medical school which was also a centre for translators. Additionally, according to Fischbach (1998), Toledo School of Translators made a major contribution by translating the works of Arab and Persian physicians into Latin. Arabs worked as intermediaries when they transferred their medical terms and earlier Greek heritage. Two active medical translators at that time were Constantinus Africanus (1020-1087) and Gerard of Cremona (1140-1187; Ackernecht, 1982; McMorrow, 1998).

It was not before the 13th century where a second phase of translation started in which translators focused on rendering Greek medical manuscripts directly and accurately. In the Middle Ages, Middle English and Latin were used for medical communication. However, Latin was preserved for academic purposes and Middle English was merely a vernacular. The 19th century marked the shift to English as the language of medical instruction (McMorrow, 1998). Nevertheless, the effect of the two classical languages is evident in many medical English words that have either Greek or Latin roots. Regarding medical topics, many of the translated manuscripts tackled the topic of human anatomy and common diseases (McMorrow, 1998; Soubrier, 2014).

Recently, English has been established as the lingua franca for scientific communication. Thus, it has been estimated that over 80% of medical research papers are written in English (Montgomery, 2009; Kaplan, 2001). According to Salager-Meyer (2014), there are about 25,000 medical journals in which 15,000 are considered to be Anglo-American publishing about 10 million papers every year. Such statistics show the need for transferring new findings through translating to a group of readers who do not have any specialized knowledge of medicine.

2.2 Medical Language

As stated above, medical language is a technical language, and hence it is a bit challenging for translators to translate some medical texts. Besides having words of Greek or Latin origins, medical language is characterized by the use of eponyms (i.e., medical terms that are originally names of people) which can be of diseases such as Thomsen's disease, Carrion disease, Lou Gehrig's disease, etc. that are named after the physician who discovered them or early patients. There are also eponymous terms for fractures (e.g., Barton's fracture, Bennett's fracture, Bumper fracture, etc.), medical signs and symptoms (e.g., Abadie's symptom, Alexander's law, Battle's sign, etc.), surgical procedures (e.g., Foley operation, Gavrilu's operation, Finney pyloroplasty, etc.), medical devices (e.g., Adson's forceps, Auvard's speculum, Allis clamp, etc.), anatomical parts (e.g., Fallopian tube, Adam's apple, Wernicke's area, etc.). Eponyms are especially problematic for translators when the equivalent in the target language is not always eponymous (Karwacka, 2015). Consider, for example, (مرض الزهري) for syphilis. In other cases, an eponymous term in the source language may have an eponymous and non-eponymous translation. For instance, (شلل الرعاش) is the Arabic equivalent for Parkinson's disease besides the transliterated term (مرض باركنسون).

Another feature of medical English is the use of acronyms (e.g., 'AIDS' for Acquired Immunodeficiency Virus Syndrome), abbreviations (e.g., 'BP' for blood pressure, 'EEG' for electroencephalogram, 'Hb' for hemoglobin, etc.) and clippings (e.g., 'lab' for laboratory, 'vet' for veterinarian, 'flu' for influenza, etc.). In addition, many medical words are affected by other word formation processes, such as word compounding (e.g., heart failure, patient safety, etc.), affixation ('itis' to create words like bronchitis, hepatitis, appendicitis, etc. and 'algia' for myalgia, otalgia, ostalgia, etc.), and there are also binomials (e.g., trial and error, on and off, etc.).

It is important to note that homonymous and polysemous words are other triggers of linguistic intricacy. The polysemous term 'discharge,' for example, can be translated as (إفراز) or (الإذن بمغادرة المشفى), (Karwacka, 2015). Deciding on the type of the genre and the target reader will help translators decide between synonymous terms. In other words, they may choose either specialized terms or colloquial ones. Consider, for instance, the use of *intestines* instead of *guts*, *smallpox* in place of *variola*, *chickenpox* for *varicella*, etc. (Browne, 2016).

Besides medical terminology, the medical language is based on evidence, and thus it became known as the language of evidence-based medicine (EBM) which is marked by the use of the passive, nominalization, lexical density, long sentences, metaphor, rich images, hedges (Salager-Meyer, 1994) and pre- and post-modification (Karwacka, 2015). Additionally,

another source of problems is that some medical words have nearly the same spelling. *Trachea* versus *trachoma*, *urethral* as opposed to *ureteral*, and *palpation* compared to *palpitation* are examples (Browne, 2016).

2.3 Translation in the Classroom

Holmes's classic map of translation studies (see Figure 1 below) is of two parts: the theoretical part (purely *theoretical* or *descriptive* 'of certain orientations and restrictions') and the practical one (e.g., translator training, translation aids, and criticism). However, the practical part focusing on applying theories or training translators did not receive the attention it deserves. In addition, students always show interest in having practice in translation classes (da Silva & Fernandes, 2016). According to Pym (2011), students use theory whenever they encounter a translation problem. Hence, the relation between the two should not be ignored by practitioners and theorists.

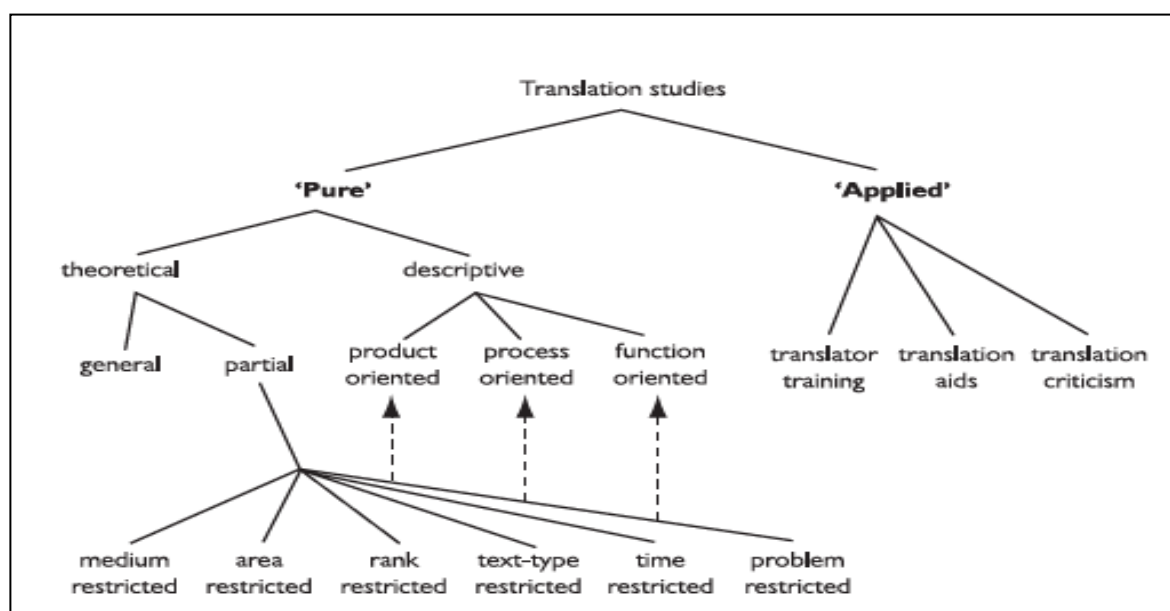


Figure 1. Holmes's Map of Translation Studies (Toury, 1995, p. 10)

Further, Pym (2011) argues that translators frequently resort to discussions with professional translators to decide on the best translation of a source text. Discussions that were meant to criticize were very useful for choosing the accurate translation of the Bible in the past and for localizing instructions in video games nowadays. Nevertheless, nominating one translation as the most accurate should be based on extensive knowledge of translation theories.

Translation theory means knowledge of the sub-competences that make up the translation competence. Translation competence enables translators to be aware of translation as a process and a product. Translation competence is variously termed *translation ability*, *translation skills*, *translational competence*, *translator's competence* and *translation expertise* (Hurtado Albir & Alves, 2009, p. 63). The competence encompasses linguistic skills and sociocultural knowledge. According to Sch äffner (2000), the translation competence is made of sub-competences that are relevant to translators' training. The first sub-competence is the

linguistic one, and it is mainly of the languages that a translator possesses knowledge of. However, the second component is the *cultural competence* and it is of economic, political, historical aspects relevant to cultures pertaining to the two texts. The *textual competence*, on the other hand, is basically knowledge of genre conventions and text typology. Moreover, knowledge making up the *subject-specific competence* is of a certain area of expertise. Sch äffner (2000) also proposed the *research competence* which is a strategy competence, and it is concerned with the ability to resolve problems related to transferring cultural meaning. Nevertheless, the *transfer competence* is about producing target texts that meet the demands of the translation task.

Translator trainers gave importance to the textual competence where translators' attention is drawn to the text's linguistic features that serve certain communicative functions in relation to a specific situation. Translators are thus introduced to different types of genres that follow publicly organized conventions where mapping between form and meaning or function is systematic and predictable (Sch äffner, 2000). It is important to note that Sch äffner's work on text typology was influenced by Katharina Reiss ' (1971) classification of text types (i.e., expressive, informative, and operative texts). However, Sch äffner (2000) stated that such categories are not well-defined, and thus it is common to find a text that serves more than function depending on the situation it describes. Hence, in order to develop the textual competence of students, Sch äffner indicated that translators should be encouraged to work on existing translations and compare the source text with the target one before they start translating a similar text. Discussing translations helps improve learners' critical thinking ability and provides them with the translation tools peculiar to each text typology.

3. Task-Based Language Teaching

The approach of TBLT became very popular among many English for Specific Purposes (ESP) and EFL practitioners because of its advantages. For example, it emphasizes learning through interaction (Pica et al., 1993), places a lot of importance on using authentic texts and autonomous learning (Long & Norris, 2000), links what happens in class to what is typically happening in life, and above all it is needs-based (Long & Crookes, 1991). Central to the theory is the use of communicative tasks (Pica et al., 1993). This section, thus, will elaborate on the history of TBLT, its main contributors, and their suggested procedures, and the two main task types.

3.1 Theoretical Background

Relating form to meaning is one of the principles of the TBLT Approach which was first proposed by Michael Halliday (1994) as part of his theory that became known as Systemic Functional linguistics (SFL). According to Halliday, language is a purposeful activity and a tool for making meaning. Thus, any piece of text serves three broad meanings or metafunctions. The first one is the experiential meaning where language users are more concerned with representing their experience of life through the use of certain participants, processes, and circumstances. The second purpose of using language is to exchange interpersonal meaning in which individuals use language to establish social roles, form a relationship with hearers or readers, denote a certain level of solidarity or formality, etc.

Related to these two metafunctions is the enabling function (the textual meaning) where one organizes their production with reference to features of a specific mode of delivery (i.e., spoken or written).

According to functional linguists, language is capable of realizing such functions simultaneously and at different levels involving sounds, words, grammatical structures, clauses, texts, etc. because of its stratified nature. Thus, analysis of texts should account for the relation between any linguistic feature and the function it serves with respect to the immediate context (i.e., a particular situation) and the broader context (i.e., culture). Additionally, a comprehensive analysis should start with identifying the *field* of the text (e.g., its subject matter, the domain-specific vocabulary, its situational context, etc.), the *tenor* (i.e., Who are involved in the text? What is their relationship? their social status? Who is more powerful? What is the level of familiarity and intimacy between participants?) and *mode* (i.e., Which channel of communication is used? Which linguistic features are peculiar to each mode? Does the text writer or speaker expect feedback from the recipient?). To relate the field of the text to the vocabulary items used in the text, an analysis of transitivity is necessary to identify the types of participants (e.g., actors, agents, sensors, etc.), processes (e.g., material, mental, existential, relational, etc.) and circumstances (e.g., matter, location, angle, manner, etc.). As for tenor, analyzing clauses in terms of mood and modality means distinguishing between utterances that are mainly of exchanging information (i.e., propositions) or of commodities and services (i.e., proposals). As for the textual meaning, discourse analysis of thematic development in terms of theme and rheme or given and new information and cohesion is essential. Halliday's model of language and discourse became popular among educators who later developed TBLT and GBP.

Relevant to translation, Juliane House's (1997) developed a framework for assessing the quality of translation to find any mismatches between the source text and the target one. As shown in Figure 2 below, House proposed that a text and its translated version should be compared with reference to Halliday's register variables (field, tenor, and mode). However, before undertaking a systemic functional analysis of the two texts, instructors should make sure that the translated text reflects the genre (i.e., text type) of the source and hence replicates its communicative function.

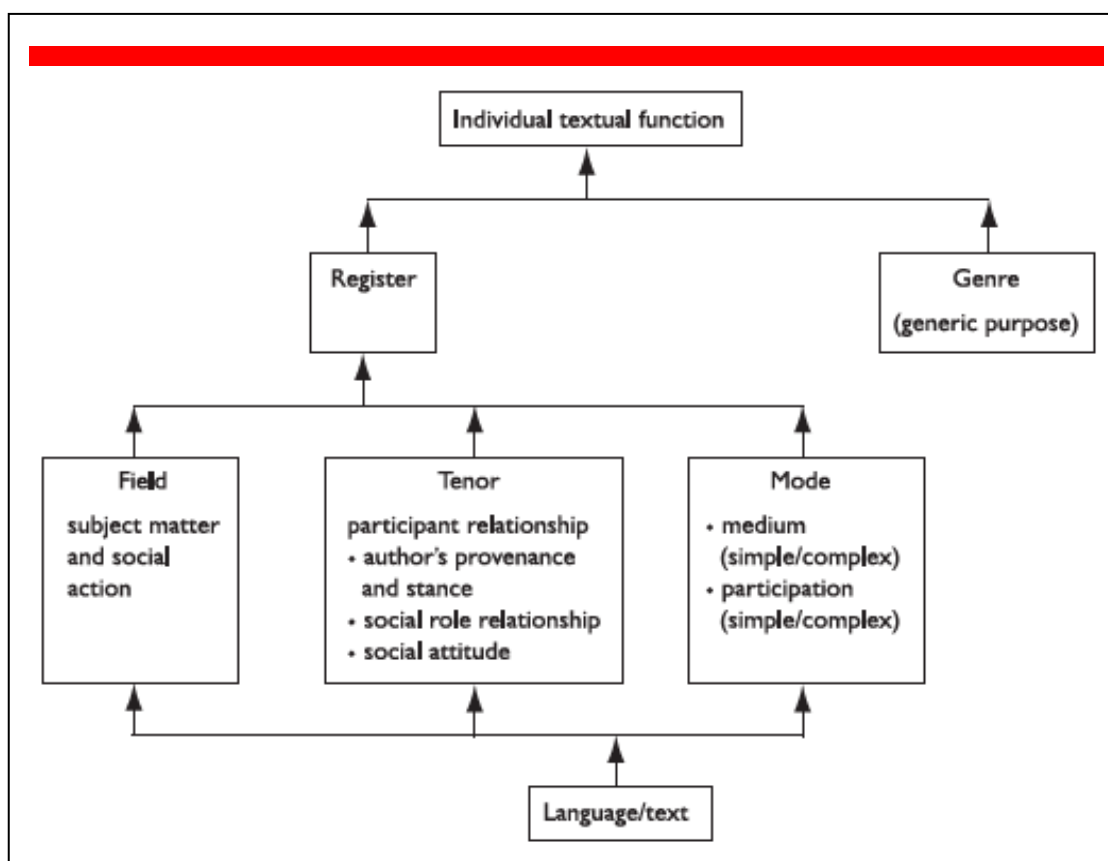


Figure 2. House's Scheme for Comparing Texts and Their Translations (Munday, 2001, p. 92)

3.2 A Brief History of TBLT

Teaching through the use of tasks was first adopted by Prabhu in 1987 as part of the Bangalore Project in India. Prabhu believed that learning occurs once learners finish tasks. Prabhu proposed that the pre-task phase is essential for task completion. During this phase, instructors undertake a similar task in class and complete it to ensure that learners will successfully perform the assigned task. On the other hand, Skehan (2009) initiated a three-phase approach to task instruction: pre-task, during-task, and post-task. The first phase can be broken down into a number of steps that involve doing a similar task, raising consciousness to task intricacies, and observing how a task can be done. The during-task phase, on the other hand, focuses on completing the task, whereas the post-task stage is about publicly performing the task and analyzing it.

Similarly, Ellis (2003) suggested a three-phase model where in the initial stage the instructor undertakes a similar task, provides a model, and plans time. In the second stage, however, learners will access input data under time constraints. The last stage, nonetheless, is mainly of consciousness-raising activities, reporting completed tasks, and language production. Also, Nunan (2004) proposed a six-step framework for task-based instruction. The first one is schema building where the instructor introduces the field or the topic and its related vocabulary. The second stage, however, is termed *controlled practice* in which practice of relevant vocabulary, structures, and their functions are provided. Nevertheless, in the third

stage, learners are gradually exposed to intensive listening practice of authentic material. Following this stage, learners are required to do a number of exercises focusing on relevant linguistic features. As for Phase Five of freer practice, learners are encouraged to use the type of linguistic patterns or features they are exposed to in earlier stages or other resources at hand. However, the sixth stage is about introducing the pedagogical task. In this stage, learners are expected to complete the task using instructions given in the first five phases. To complete the task, they should mobilize their grammatical knowledge to express meaning using the target language.

By the same token, Willis (1996b) developed an improved version of Ellis' model but of the three traditional phases typical of any TBLT task. In the pre-tasking phase, learners are introduced to the topic (i.e., its vocabulary and expressions) and the task itself (i.e., its instructions). Learners may watch or hear a recording of how other learners accomplish a similar task. After this stage, learners should go through the second phase of task cycle which is of three sub-phases (task, planning, and reporting). During the first sub-phase, students are asked to do the task in pairs or groups, and the teacher's role is to monitor students' progress. In the planning sub-phase, however, students report to the whole class how they have done the task, what problems they have encountered, and how they have solved them. Additionally, in the last sub-phase, exchanging written reports and comparing results are expected. After the task cycle, the post-task phase of language focus is recommended in which learners do two types of activities. The first group of activities aims at analyzing specific linguistic features (e.g., specific words, expressions, structures, etc.) of the text, and during this stage practice of such features can be introduced using the other group of activities.

3.3 Tasks

According to Lee (2000), tasks are of two types: *real-world* and *pedagogical* tasks. The second category includes tasks with the purpose of using language interactively to learn it (Nunan, 2004). According to Nunan (2004), pedagogical tasks are of communicative value and can stand alone to achieve it, and hence they have a beginning, a middle, and an end. While using pedagogical tasks in class, instructors should focus on the interrelatedness of form and meaning, and discussion of such can be through either language. On the other hand, real-world tasks form a sequence in a series of activities, and thus one task cannot be considered without reference to the other. As noted by da Silva and Fernandes (2016), pedagogical tasks help develop translation competence. However, real-world tasks can also be used to prepare students to their professional life. Whatever the type of task utilized in class, Lee argued that tasks should be carried out with a purpose in mind.

Further, Lee (2000) noted that pedagogical tasks represent the other end of the continuum, and thus they are goal-oriented (e.g., rearranging jumbled items), carefully sequenced, time-paced, of a definite outcome (e.g., a summary of a reading task), involving pair-or group work, resource-driven (e.g., materials and resources used with the task), requiring language for task achievement, meeting certain assessment criteria, and following a procedure for completion.

3.4 Task-Based Approach in Teaching Translation

The principles of TBLT can be easily applied to translation since the purpose of translation is transferring meaning, and this eventually emphasizes the purpose of using language as a meaning-making tool. Language serves a communicative function and so does translation (Ellis, 2009). Hence, researchers adopted TBLT for teaching translation (e.g., González Davies, 2004; Li, 2013; Liu & Ma, 2015; Rezvani & Bigdeli, 2012). As a result, different frameworks based on proposals by Skehan (2009) and Willis (1996b) have been proposed for translation.

For instance, Li (2013) improved the model proposed by Willis (1996b) to suggest a new one for translation. The adapted model is of six stages: pre-task, task, reporting, analysis, revision, and reflection. Li (2013) added to the improved model the specific competence that will be activated at every stage. In the pre-task, teachers provide students with instructions, resources, and strategies. In the task phase, however, they monitor and facilitate group/pair work. In the reporting session, students report their translations, and the instructor gives feedback. As for the analysis stage, the instructor and the students cooperate to analyze selected translations. Regarding the revision phase, the teacher assists students with their revision, and they have to incorporate the teacher's feedback. In the last stage (i.e., reflection), students reflect on the difficulties they face as they translate the text, and the teacher suggests some techniques to cope with such problems.

TBLT proves to be beneficial for translators. For example, Colina (2004) stated that engaging translators in communicative translation tasks facilitates the acquisition of the communicative translational competence. Further, da Silva and Fernandes (2016) indicated that TBLT promoted interaction between students, encouraged critical thinking and helped translators produce better translations. Additionally, TBLT is learner-centered and guarantees higher levels of achievement once learners become responsible of their learning (Li, 2013). In a recent study, Alenezi (2020) used Li's (2013) customized model to improve students' performance in an introductory translation course. The treatment was of nine weeks, and participants were divided into eight groups of five. Analysis of grammatical, cultural, rhetorical, pragmatic, and lexical errors showed some improvement in performance. The researcher concluded that the utilized model helped enhance students' bilingual sub-competence.

4. Genre-Based Pedagogy

GBP applied the principles of discourse analysis (i.e., Hallidayan grammar) to language instruction (Hatch, 1992). Hence, the analysis is concerned with the textual (e.g., lexical and grammatical units) and the contextual features (e.g., its purpose, social context, potential participants, etc.) of a text (Paltridge, 1994). More importantly, GBP emphasizes the sociocultural dimension of language (Hyon, 1996). As with TBLT, GBP is another model based on Halliday's Systemic Functional Grammar that emphasizes relating form to meaning and social context. Central to GBP advocates is the belief that in teaching the product and the process are equally important (Hyland, 2007). Based on GBP, text typology is mainly determined by genre conventions texts exhibit and their communicative function. According

to Swales (1990), texts of the same function belong to the same genre. A syllabus based on GBP uses genre as the driving force and focuses on formal and functional aspects of language (Macken-Horarik, 2002). Thus, translators should pay attention to the type of text or genre they are dealing with. Such knowledge contributes to the development of the textual competence necessary for translation (Schäffner, 2000).

Speaking of its benefits, GBP is based on students' needs and GBP proponents assume that learners will transfer their knowledge of a certain genre to other relevant texts. In this way, GBP makes learning motivating and relevant (Hyland, 2004). According to Bhatia (1999), genre competence is a transferable skill. However, Cope and Kalantzis (1993) warn against using GBP as a categorization tool. Yet, it should be utilized as an analytical tool for facilitating critical thinking and reflection. In relation to translation, only a few studies explored the effectiveness of GBP in translation instruction. For example, Hewings and Henderson (1987) and Hyon (1996) reported the efficiency of GBP for improving student comprehension of text structure and their translation ability.

In class, to conduct a genre analysis using authentic texts (Bhatia, 1999), Hyland (2007) suggested the Teaching Learning Cycle which is also termed the 'genre cycle' for teaching and learning writing. The first step in the cycle is *constructing the context* (i.e., drawing learners' attention to the purpose and the setting). The second step, however, is *modeling* the text where the teacher highlights textual features of a text. *Collaborative construction* of the text is the third one in which teacher-guided activities are used to emphasize text's features. Nevertheless, in *individual construction* of the text, teachers try to monitor student progress as they attempt to produce the text. The purpose of the fifth step, however, is to link related texts together where the teacher compares between texts of two distinct genres (Hyland, 2007). Similar to the TBLT model, GBP places a lot of importance on scaffolding (i.e., teacher-supported learning) and learner collaboration (Hyland, 2007).

5. TBLT Needs Analysis

As mentioned above, the current proposal is based on Salamah et al.'s (n.d.) needs analysis that aimed at identifying translators' target needs at the English Language Program at the college of Languages and Translation (COLT). The study explored the typical text types that translation graduates have encountered in different work domains. Further, it reported findings on which skills learners need to develop for the job market. Additionally, attention to important evaluation criteria with respect to three frequent fields of translation (i.e., business, law, and medicine) was made. Thus, before proposing an integrated model for teaching medical translation, reference to findings yielded by the needs analysis is essential.

Using two types of questionnaires, unstructured interviews, and document analysis of course descriptions and specifications, the researchers found that the public sector required medical translation more than the private one and that written medical tasks were more frequent than oral ones. Further, translating from Arabic into English and the opposite was more common than translating from one direction. Additionally, COLT graduates ranked forms and email correspondence as the most frequent translation tasks assigned by their employers. Second in rank, respondents reported that the frequency of reports and policies. As for evaluation

criteria, evaluation criteria emphasized by employers in the work place were meaningfulness, appropriate use of vocabulary, grammatical and structural accuracy, and appropriate use of terminology.

However, document analysis of course descriptions and specifications showed the emphasis on chapters from textbooks, passages from web pages, reports, news releases, and awareness pamphlets. For evaluating tasks, accuracy (e.g., in spelling and pronunciation), appropriate use of medical terms, clarity, and choosing the appropriate style were equally important. Skills essential for translating medical tasks were research skills and using technology.

Interviews with instructors indicated that they gave importance to encyclopedic texts, articles, reports, prescriptions, pamphlets, research skills (e.g., to compare source texts with their translations before translating a similar text), and using medical dictionaries. They further added that for translating into English accurate use of structure should be highlighted for students, whereas for translating into Arabic finding the right Arabic medical equivalent is important. One instructor, however, argued that evaluation criteria for each text type should be mainly determined by the communicative function of each text type and its potential readers.

As shown above, there is a discrepancy between what medical instructors emphasize in class (e.g., passages from reliable websites and textbooks, encyclopedic texts, reports, articles, etc.) and what professional medical translators typically do (e.g., forms, emails, policies, terms and conditions, reports, etc.) in the workplace. In addition, the needs analysis indicated the frequency of press releases. Thus, the researchers suggested the inclusion of medical news releases in the syllabus. Other tasks that should receive attention from medical translation instructors are forms which are also reported as significant by Sand et al. (2012). Nonetheless, the criteria used by COLT instructors to evaluate students were similar to those common among translators of medical texts. Interviews with such instructors revealed the importance of raising translators' awareness to text features of different genres. Regarding skills, while course specifications list using technology and having good research skills as essential for translators, survey results revealed that time management was more important for translation tasks.

6. Purpose of the Current Proposal

Based on a needs analysis conducted by Salamah et al. (n.d.), the present paper aims at developing an integrated model of TBLT and GBP to teach medical translation. The model is based mainly on Li's (2013) task cycle and Hyland's (2007) genre cycle. Besides proposing a model to follow in class, the researcher designs a syllabus that gives importance to certain genres, skills, and evaluation criteria.

7. Rationale of the Proposal

As advanced above, the needs analysis by Salamah et al. (n.d.) revealed a number of discrepancies between what professional medical translators typically translate and what instructors emphasize in class. In other words, translation instructors are not aware of the most frequent genres or translation tasks required in the job market. Further, course

specifications and syllabuses of medical translation do not address learners' target needs, and thus another source of discrepancy is detected. Since a needs analysis can immeasurably contribute to assessment and curriculum development (Van Avermaet & Gysen, 2006), the present proposal used the results of the need analysis to develop a model for teaching medical translation in class taking into account the genres, the evaluation criteria, and the skills that should receive more attention. The importance of the proposal stems from the fact that only a few papers discussed how translation can be taught using TBLT or GBP. In addition, no integrated model of the two is suggested for teaching any specialized translation and hence the importance of the proposal.

8. The Proposed Model

As stated above, the proposed model for teaching medical translation for EFL learners is based on Hyland's (2007) genre cycle and Li's (2013) improved framework of TBLT. Both pedagogical approaches are based on Halliday's systemic functional grammar and emphasize that the link between form and meaning should be highlighted for students with reference to a specific social context. Further, integrating the two is well justified since they are both needs-based and encourage critical thinking and the use of authentic materials. While GBP is concerned with analyzing the textual and the contextual features of the text, the TBLT model encourages discussion between students and learner-centeredness. This section elaborates on the characteristics of the syllabus adopted for medical translation (i.e., genres, skills, and evaluation criteria), the role of the learner, the use of authentic materials, and the procedure followed in class.

8.1 Syllabus

The researcher developed a syllabus (see Appendix A) that is based on a prospective decision on what to teach and in what order (Robinson, 2001). It includes a variety of genres such as informed consent forms, medical reports, correspondence between professionals and between professionals and patients, lab test results, leaflets, prescriptions, news releases, policies, and research papers. Based on results reported by Salamah et al. (n.d.) and Sand et al. (2012), more weight is given to informed consent forms (from Arabic into English and the opposite), written correspondence, policies, and reports. Other genres are considered in line with Karwacka's (2015) suggestions such as prescriptions and research papers.

Topics selected for the syllabus are the most frequent in ESP books assigned to medical students (e.g., Tiersky & Tiersky, 1992; Leonard, 2017; Davi-Allen, 2014; Thierer, Nelson, Ward & Young, 2010). Thus, the first few classes focus on human anatomy, and then topics on common ailments and treatments are introduced. Texts about surgical procedures, emergency care, and policies are important to discuss in class as they contribute to medical translators' knowledge (Karwacka, 2015). Topics of other text types are determined by frequency and familiarity. Hence, choosing articles on corona and head transplants are well justified since head transplantation is a controversial issue in the news nowadays. In addition, using paracetamol as a treatment is more common than other types of drugs.

Further, tasks are carefully sequenced where the last task is translating a research paper in

which students are required to translate to a language they are less familiar with. Their translation should be characterized by the use of passive sentences, impersonal tone, nominalized and technical terms, and lexically dense language. Such features are typical of scientific research writing, and students, in general, reported that they are difficult to achieve (Halliday, 1994). Moreover, in translating leaflets, articles in newspapers, Wikipedia articles, consent forms, etc. the reader has no specialized knowledge of medicine as opposed to readers of medical articles published in specialized journals. In the latter, the use of very specialized language is important. Even more, the research paper selected for translation necessitates that translators cooperate and read the translations of previous and subsequent sections to provide a coherent translation. Also, in translating research papers, translators need to take into consideration abstract components and research peculiarities they are less familiar with. Hence, translating research papers is source-depleting in terms of task complexity and requires a high level of language proficiency regarding task difficulty (Robinson, 2011). Sequencing is also emphasized through introducing pair work before group work as this will help timid students gradually establish relations with the rest of the class (Robinson, 2011).

Findings from Salamah et al.'s (n.d.) needs analysis suggested equal attention to translations of both directions (i.e., from English into Arabic and vice versa). Hence, instructors should select informative texts in Arabic and in English. However, for other genres, it is recommended that instructors choose the direction that is more frequent in each genre. Thus, it is more common to translate prescriptions, reports, newspaper articles (i.e., about breakthroughs), and leaflets into Arabic and videos about health care issues in Saudi Arabia into English.

In each class, students are exposed to two different genres. The first one is an informative text taken from an encyclopedia, a textbook, or a reliable website. The sources for such informative texts were suggested by EFL translation instructors interviewed in Salamah et al.'s (n.d.) needs analysis. The second text, on the other hand, is of a different genre and thus of a different function. Using Reiss' (1971) text typology, the first one is informative as it communicates content, and the second is operative because it elicits a specific response from the reader. For each content-communicative text, the researcher ensures that the other text type introduced in the same class addresses the same topic to guarantee smooth transition between different genres. Hence, a newspaper article about head transplantation follows a text on common surgical procedures. By the same token, a text about the human urinary system precedes a translation task of lab test results. After each class, through assignments, students are encouraged to apply the translation techniques peculiar to a specific genre to another text belonging to the same genre.

The syllabus of a medical translation course emphasizes a number of skills such as using dictionaries, having good research skills, using technology, and time management. Interviews with instructors at COLT and document analysis by Salamah et al. (n.d.) showed the importance of such skills in the job market. Hence students are ought to use certain software (e.g., Windows Movie Maker and Publisher) or websites (e.g., Piktochart) to make a video and upload it to Youtube and design leaflets in Arabic. Additionally, a number of

English-English dictionaries and English-Arabic dictionaries are included in the syllabus such as *Oxford Concise Medical Dictionary*, *The Charles Press Handbook of Current Medical Abbreviations*, *Hitti Medical Translation*, etc.

The syllabus also gives value to different research skills. For example, to do assignments, students are required to find texts of the same genre to translate. Further, they have to find a text similar to the one in class with its translation to discuss the translation and the strategies used for such a translation task. Though topics in the syllabus are selected by the teacher, students are required to find texts of such topics in encyclopedias, textbooks, reliable websites, etc. This will raise students' awareness of text features of a certain genre and will encourage autonomous learning. For informative texts, the text chosen for class discussion should be lexically dense, of formal style, and uses specialist language. The length of selected texts should be between 250 and 300 words. The software, Text Analyzer, can give valuable information about text's features. Students' good translations (e.g., in form of leaflets, prescriptions, newspaper articles about health issues) will be published in the College's magazine or used for events (e.g., World Cancer Day, World Asthma Day, World Aids Day, etc.) in the university. Publishing Arabic articles in Wikipedia is also recommended. Within the TBLT model, publishing written documents guarantees publishers' commitment and a good quality of the published work (Willis, 2009). Besides research skills, time management is central to the integrated model, and hence students are required to finish tasks in class within a limited period of time, and the same goes for assignments (Ellis, 2000).

As for evaluation criteria, the syllabus reflects the results of the needs analysis where meaningfulness is given more weight in translations from English into Arabic and vice versa. Additionally, based on findings from interviews with translation instructors, accurate use of structure in translations into English is as important as accurate use of terminology in translations into Arabic. Accurate spelling was emphasized by medical instructors and highlighted by previous research (e.g., Browne, 2016). However, professional translators in the needs analysis did not report its importance for the job market. Hence, the researcher allocates 10% of grades for it. Also, needs analysis results justify the reason behind the inclusion of grammatical accuracy as an evaluation criterion, but it was not emphasized by translation teachers.

8.2 Authenticity

Authentic materials (e.g., lab test results, prescriptions, newspaper articles, etc.) should be adopted for class discussion especially for tasks of operative nature. Hence, students are also prompted to select authentic materials for their assignments. However, only informative texts are taken from textbooks since they include very frequent technical terms peculiar to the topics selected by the instructor. Nonetheless, a few operative texts should be taken from textbooks.

8.3 Procedure

The developed model suggested by the researcher is built on previous frameworks and draws on research in Hallidayan grammar, TBLT, and GBP. First, handling any task of a certain

genre for the first time, the instructor follows the procedure below.

1. Instructors ask students about the topic of the text, its specialized terms, and its context.
2. Then, they prompt students to think of potential recipients and their level of medical knowledge. In interactive tasks such as written correspondence, instructors may ask questions about the level of formality, familiarity, intimacy, or solidarity between receivers and senders. Such information is conveyed through specific structures such as the use of interjections, ellipsis, and contracted forms. Other questions include the social roles of participants and their attitudes towards one another.
3. The third set of questions is about the channel used for communication (e.g., written or spoken) and which expressions used to indicate each channel.
4. After that, instructors have to address the communicative function of the task and its genre conventions.
5. At this stage, instructors can introduce a number of pedagogical tasks (see Appendix C) that focus on language (e.g., matching abbreviations with their full forms, indicating the difference between words of nearly the same spelling through translation, breaking down a word into its components, etc.). Pedagogical tasks are taken from Davi-Allen (2014), Leonard (2017), and Thierer et al. (2010).
6. After the pedagogical stage, the teacher introduces a similar text with its translation for discussion. Expressions used in both texts are highlighted and their translations are emphasized for students. Then, the teacher provides students with the translation of some specialized terms peculiar to the source text.
7. At this stage, the teacher can supply students with translation strategies on how to translate problematic expressions such as binomials, polysemous words, synonymous terms, etc. The teacher should draw students' attention to the fact that the use of such terms is determined by the text's communicative purpose and its potential readers.
8. Then, the instructor works with students to build the target text sentence by sentence. Students are encouraged to contribute their translations, and the teacher comments on the suitability of each translation.

As shown above, the steps listed above are adapted from Hyland's (2007) genre cycle where the teacher in the initial stage focuses on the textual (i.e., words and expressions) and the contextual (i.e., purpose) features of the text. Then, the teacher with students will go through the stage of collaborative construction. However, the phase of individualized construction will be kept for the TBLT model that emphasizes learner autonomy. Hence, for subsequent classes handling similar texts of the same genre, the teacher encourages translators to work in groups (i.e., of five) or pairs. Translators assume full responsibility of their translations. The following outlines the responsibilities of the teacher and the translator. The model below is adopted from Li (2013). Following Li's improved model, the researcher indicates the type of translation sub-competence activated in each step (see Figure 3).

8.4 Tasks

8.4.1 Pre-task

1. Teachers give instructions, explain linguistic features, introduce pedagogical tasks and decide on the amount of time needed to complete each phase.
2. Then, they provide students with resources, tools, or strategies needed for the task. [instrumental and strategic competences]
3. Students are then encouraged to complete the table (see Appendix B) before they translate. The table helps raise students' awareness of text typology. [bilingual competence]

8.4.2 Task

1. The instructor monitors group and pair work. [bilingual, strategic, and psycho-physical competences]
2. Students are reminded to compare the task they do to a similar one that has a translation. [bilingual competence]
3. Group discussion and meaning negotiation are necessary to solve various translation problems (Pym, 2011). [strategic competence]
4. Students complete the assigned translation within pre-decided time constraints (Van den et al., 2009).

8.4.3 Post-task

Reporting

1. The teacher coordinates every reporting session.
2. Each group presents their translation orally or written on the screen. Each group representative justifies their translation, the strategies they use, and the sources they utilize. At this stage, translators report on the translation process as well as the product (Hyland, 2007). [development of translation knowledge competence]
3. At each reporting session, the teacher gives feedback and invites translators to comment on their classmates' translations. [development of translation knowledge competence]

Analysis

1. The teacher comments on common problems, reemphasizes objectives of the course that can be achieved from the task, illustrates objectives and problems using examples from the task, and answers students' questions.
2. Students are expected to ask questions or give illustrative examples. [development of translation knowledge competence]

Revision

1. Instructors assist students with their editing and revision.

2. They evaluate each group's translation taking into consideration that the best translation will be posted as a sample for other students in the course Blackboard.
3. Using instructors' feedback, students revise and edit their translations. [development of translation knowledge competence]
4. After revision, students are asked to deliver their translation.

Reflection

1. Teachers reflect on some problematic linguistic or translation aspects to be discussed in the next pre-task session.
2. Teachers take notes of useful tips that can be used in future sessions.
3. Students reflect on the problems they have encountered, the strategies they have used, and the time allotted for completing each task. [development of translation knowledge competence and strategic competence]

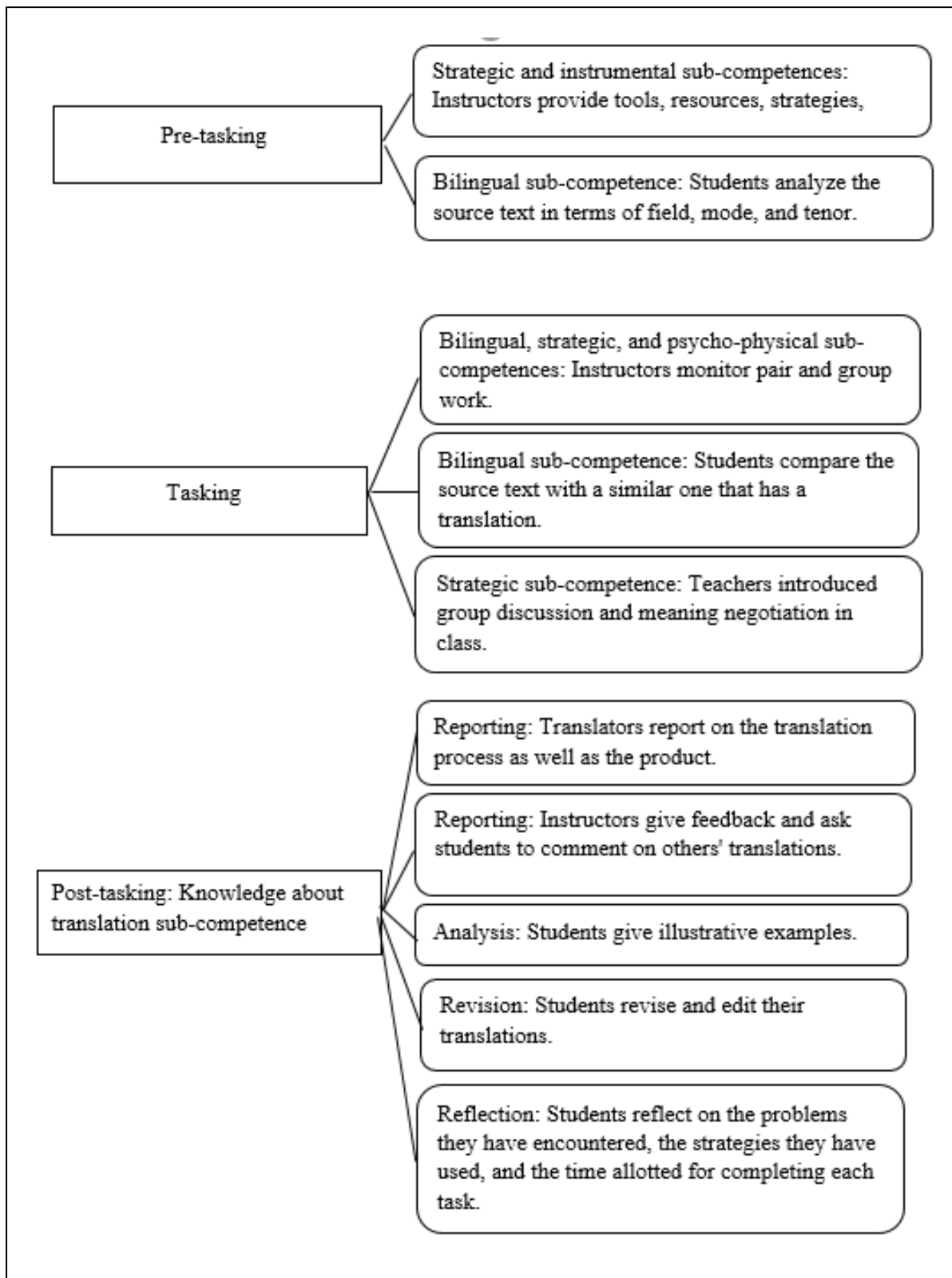


Figure 3. A Suggested Model for Translation Based on Li's (2013) Model

9. Conclusion

As shown above, the TBLT model followed in class promotes learner autonomy and the activation of a number of sub-competences necessary for the completion of the task. It is of three main phases following Li's (2013) suggestions. Using Sch äffner's (2000) classification of competences, using pedagogical tasks activates the *linguistic competence*, whereas analyzing textual and contextual features of the text (i.e., GB discourse analysis) activates the *textual competence*. The use of the *transfer competence* is evident as students transfer their knowledge of genre's conventions to a similar text. The *research competence*, on the other hand, is involved when translators search for a similar text with its translation, use translation strategies or when they look up a word in the dictionary. Searching for the correct translation can be also achieved through using the Web as a corpus tool.

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Appendix A. Medical Translation: A Suggested Syllabus

Course Overview

In this course, students will acquire experience working with a variety of medical documents focusing on different medical topics. The passages chosen to be translated provide a sampling of typical medical material that professional translators are likely to encounter on a regular basis such as consent forms, medical brochures, hospital reports, etc. Additionally, encyclopedic texts used in the course provide translators with important terminology and phraseology that make up the technical knowledge that every medical translator should have.

Course Objectives

By the end of the course, students will be able to

- *distinguish* between different types of texts;
- *breakdown* medical words into their components: roots, prefixes and suffixes;
- *tell* the meaning of medical terms by giving the accurate translation;
- *use* grammatical structures and terminology appropriately;

- *avoid* spelling mistakes;
- *recognize* common medical translation problems (translating homonymous, polysemous and eponymous words and clippings, acronyms, abbreviations, compounds); and
- *reproduce* the source text in the target language.

Class Schedule

Week	Topic	Assignments
Week 1	Human Anatomy: Skeletal System Human Anatomy: Integumentary System Human Anatomy: Muscular System <i>Informed Consent Form</i>	- <i>Pair work</i> - translate a consent form of your choice. (5%)
Week 2	الجهاز الدوري الجهاز التنفسي <i>History and Physical: Consultation</i>	
Week 3	الجهاز الهضمي الجهاز العصبي Human Anatomy: Urinary System <i>Lab Test Results</i>	
Week 4	الجهاز التناسلي جهاز الغدد الصماء نموذج الموافقة المستنيرة	
Week 5	Human Anatomy: Immune System <i>Correspondence Letter</i> <i>Discharge Letter</i>	
Week 6	Non-infectious Diseases <i>Leaflet: Blood Pressure</i>	- <i>Pair work</i> - design an Arabic leaflet using an English website. (5%)
Week 7	الأمراض المعدية <i>Wikipedia: Coronavirus</i>	- <i>Group work</i> - translate a short Wikipedia article from English into Arabic. (5%)
Week 8	Medical Treatments <i>Prescription: Panadol Extra Strength Tablet</i>	- <i>Group work</i> - translate a prescription of a common drug into Arabic. (5%)
Week 9	العمليات الجراحية <i>Newspaper Article: Head Transplant</i>	- <i>Pair work</i> - translate an English article on healthy diet and life style. (5%)
Week 10	Medical Equipment and Tools <i>X-Ray Report</i>	- <i>Group work</i> - design an English video (2 mins.) about health care in KSA and upload it to Youtube. (5%)
Week 11	Specialties and Sub-specialties حقوق المريض والموافقة المستنيرة	

Week 12

الطوارئ

إذن المريض والحالات الحرجة

Week 13

ورقة علمية في الطب باللغة العربية

- *Group work* - translate the rest of the article into English. (5%)

Evaluation Grid

From English into Arabic (Weight %)	From Arabic into English (Weight %)
Meaningfulness 30	Meaningfulness 30
Accurate use of terminology 30	Structural accuracy 25
Structural accuracy 20	Accurate use of terminology 25
Grammatical accuracy 10	Grammatical accuracy 10
Spelling 10	Spelling 10

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Publisher for leaflets (<https://products.office.com/ar/publisher>)

Text Analyzer (<https://www.online-utility.org/text/analyzer.jsp>)

Appendix B. Text Analysis Based on GBP

<i>Field</i>	<i>Tenor</i>	<i>Mode</i>
What is the text about? What is the level of specialization? (specialized language, less specialized language, common language)	Who is involved? Who is the addressee? Who is the writer? What is their relationship (formal or informal)? What is their attitude towards one another? Who is more powerful? What is their social status?	Is it written or spoken? Does the writer expect any response from the reader?
Words, expressions and structures related to the topic	Words, expressions and structures related to the tenor	Words, expressions and structures related to the mode
Translation	Translation	Translation
What is the genre of the text? What is its communicative function?		

Appendix C. Pedagogical Tasks**I. Break apart the following words and define each part in the space allowed.**

1. somatotropic_____
2. pseudesthesia_____
3. dextrotropic_____
4. algesic_____
5. xiphoid_____
6. litholysis_____
7. cryolysis_____
8. pericardiorrhaphy_____
9. multigravida_____
10. pancytopenia_____
11. salpingitis_____
12. megalomania_____
13. lithiasis_____
14. chromatopsia_____
15. hemiparesis_____

(Thierer et al., 2010)

II. Differentiate between members in each pair below by giving the correct translation.

1. palatal, palatial_____
2. paleodontology, paleontology_____
3. palette, palate_____
4. palpation, palpitation_____
5. panacea, placebo_____
6. parasite, pericyte_____
7. parental, parenteral_____
8. pathogen, parthenogen_____
9. pathogenesis, parthenogenesis_____
10. prostrate, prostate_____

(Al-Otaibi, 2022)

III. Match the following abbreviations with their correct meaning.

1. ___ACTH a. somatotrophic hormone
2. ___HCG b. glucose tolerance test
3. ___DM c. potassium
4. ___GH d. hormone Replacement Therapy
5. ___ADH e. human chorionic gonadotropin
6. ___GTT f. fasting blood sugar
7. ___CRH g. insulin-dependent diabetes mellitus
8. ___FSH h. thyroxine
9. ___T3 i. triiodothyronine
10. ___IDDM j. rheumatoid arthritis
11. ___HRT k. parathyroid hormone, parathormone
12. ___AODM l. melanocyte-stimulating hormone
13. ___T4 m. radioactive iodine uptake
14. ___NIDDM n. growth hormone
15. ___PTH o. corticotropin-releasing hormone
16. ___STH p. luteinizing hormone
17. ___DI q. antidiuretic hormone
18. ___ERT r. diabetes insipidus
19. ___FBS s. adult-onset diabetes mellitus
20. ___K t. adrenocorticotrophic hormone
21. ___RA u. diabetes mellitus

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22. ___RAIU v. non–insulin-dependent diabetes mellitus
23. ___MSH w. follicle-stimulating hormone
24. ___LH x. estrogen replacement therapy

(Thierer et al., 2010)

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