Empowering Translators through Entrepreneurship in Simulated Translation Bureaus

Abstract
This paper reviews entrepreneurial activities that take place within the simulated translation bureaus of member institutions of the INSTB network and establishes a link between entrepreneurism, self-efficacy and perceived competence. Reusing pre-test and post-test data of a student survey, a first attempt is made to design and test a survey instrument for gauging the impact of a simulated translation bureau on perceived entrepreneurial competence and self-efficacy for planning, setting up, and managing a translating organisation in pedagogical translation company simulations. Tentative results suggest a positive effect of participation in translation company simulation modules on students’ entrepreneurial self-efficacy and perceived competence. Because of the anonymity of the data, pre-test and post-test responses could not be paired. As a consequence, the statistical significance of the results could not be confirmed.

Keywords
entrepreneurship; authentic experiential learning; simulated translation bureau; best practices; translator education; self-efficacy; perceived competence

1. Introduction
In recent decades, a good many authors have argued that a narrow, textual focus on translation tasks does not sufficiently prepare translation students for the job market as it may allow trainees to harbour the illusion that professional translation involves little more than textual conversion. While translation competence forms the core of translator education, students should also learn about translation as a business and perform a broad range of tasks in the domain of translation service provision, as laid out, for example, in the European Master’s in Translation Competence Framework (EMT Board 2017).

The EMT Competence Framework lists several business-related tasks in the categories of Personal and Interpersonal competence and Service Provision competence. However, it will enhance the graduates’ prospects even further if translation pedagogy looks at the translator’s skill set from the point of view of entrepreneurism, supplementing the translation-related competences with some skills required for setting up, running, and developing a translating organisation. In the context of entrepreneurism, it may also prove to be useful to conceptualize translation students’ awareness of their abilities as self-efficacy, sometimes characterized as a “can-do attitude” (De Noble et al. 1999), a concept that brings together aspects of competence and self-confidence (see, for example, Bolaños-Medina/Núñez 2018).

To develop a broad set of translation-related competences, various didactic concepts have been proposed to mirror the diversity of professional practices more accurately than traditional prac-
tice-oriented training methods, for example, under the headings of authentic experiential learning (Kiraly 2016), situated learning (see, for example, Calvo 2015; Risku 2016), and project-based learning (see, for example, Mitchell-Schuitevoerder 2013). The object of our discussion is the development of entrepreneurial competences and self-efficacy in translation company simulations, or simulated translation bureaus (STBs). Several translator education institutions throughout Europe offer this type of pedagogy (see, for example, Gouadec 2005; Olvera Lobo et al. 2007; Kiraly/Massey/Hofmann 2018). Our focus lies on translation company simulation pedagogy in INSTB member institutions. INSTB, the International Network of Simulated Translation Bureaus, launched in 2015, is a strategic partnership with seventeen full-member institutions and one candidate member, which, among other objectives, aims to “increase graduate employability by offering students practical, market-oriented experience during their studies” (www.instb.eu).1

1.1. Simulated Translation Bureaus and competences
In an STB, often going under the name of ‘skills lab’, ‘virtual translation agency’, ‘student translation company’ or ‘translation workshop’, students work together as a team, sourcing and undertaking translation projects that simulate activities in the translation market as closely as possible (Thelen 2006; Konttinen et al. 2017; Kerremans/van Egdom 2018; Buysschaert et al. 2018). The main advantage of this didactic concept is that it allows “students to build on and bring together [a range of] competences that have been cultivated [separately] throughout the translation curriculum” (Buysschaert et al. 2018: 131).

The holistic didactic concept of STB also encourages students to develop their generic competences (for an overview of generic competences and their overlap with specific translation-related competences, see Kelly 2007), which still “tend to play a less prominent part in [translator training]” (Buysschaert et al. 2018: 131), even as they have started to appear in translation competence frameworks, for example, in the categories Personal and Interpersonal skills and Service Provision competences of the EMT Competence Framework (EMT Board 2017).

In many publications on so-called holistic approaches to translator education, there is an underlying assumption that these approaches enhance translation graduates’ employability (see, for example, Kiraly 2016). This study follows the Bologna Follow-up Group of the European Higher Education Area’s definition of employability as “the ability to gain initial employment, to maintain employment, and to be able to move around within the labour market” (EHEA 2009: 1). Importantly, this definition points to the fact that besides gaining employment and maintaining it, graduates should also be able to move around and respond adequately to changes in the labour market. What is easily overlooked, however, is that graduates should also be able to create new jobs and spot and seize business opportunities. Relatively little attention has been paid to guiding entrepreneurs for the life after they have set up their business (Gieure/Bergegal-Mirabent 2016: 129). This paper aims to contribute to filling this gap by presenting a didactic framework and reporting on a study that links entrepreneurship, self-efficacy and perceived competence.

1.2. Entrepreneurship and self-efficacy in translation studies, and beyond
While translation studies has paid little attention to entrepreneurship, a few studies have touched upon the topic. Building on the concept of risk, Pym (2004), for instance, offers risk analysis at the textual level as one of the translator’s activities, an idea later developed in Pym (2015) and Pym/Matsushita (2018). Hui (2012) analyses trainee translators’ risk management in a simu-

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1 The INSTB network is currently composed of the following full-members: Dublin City University [IE], Ghent University [BE], KU Leuven [BE], Naples Eastern University [IT], Paris Diderot University [FR], Swansea University [UK], Technical University of Cologne [DE], UAB Barcelona [ES], University College Leuven-Limburg [BE], University of Antwerp [BE], University of Lille [FR], University of Mons [BE], University of Salento [IT], University of Turku [FI], Utrecht University [NL], Vrije Universiteit Brussel [BE], Zuyd University of Applied Sciences [NL]. University of Exeter [UK] has been a candidate member since 2015.
lated setting that involves translator-client relations. Canfora/Ottmann (2015) develop a model for risk management for translations based on the ISO 31000 standard on risk management. Vandeputte (2009) moves even closer to the domain of entrepreneurship and includes risk-taking within the set of general entrepreneurial values and entrepreneurial competences as identified at the then Ghent University and University College Ghent Centre for Enterprise. She suggests that, from the perspective of these values and competences, entrepreneurs are typically not afraid of risk-taking and feel sure of their abilities and worth: they display self-confidence, independence, creativity, initiative, proactivity, perseverance, and responsibility. To reach that state, knowledge of four domains is required (sector, service, regulations, and economy), as well as communication competences, analytical competences, learning potential, and management competences.

In a replica-study of surveys carried out among Polish students, Klimkowska (2014: 21) inquires into the following characteristics considered typical of an entrepreneurial person: creativity, stamina, proactivity (pre-emptive thinking and acting); industriousness; willingness to search for new solutions; communication; ability to predict, assess and cope with risk; diligence and meticulousness; readiness to be accountable for one’s actions; ability to adapt to changing conditions; practical education; and ability to act intuitively. Referring to Klimkowska (2014), Klimkowski (2015: 81) pleads for “an educational approach to entrepreneurship that adopts a perspective where entrepreneurship means more than the financial aspects of service provision, employability ([defined as:] ability to find a job), or compliance to the ‘demands of the market’”. Positing that successful functioning relies on values, whether ethical or aesthetic, he recommends a holistic approach for entrepreneurial training. In another article, he also stresses that in order for students to become self-directed in life choices, an entrepreneurial approach should permeate both formal and non-formal (training) activities (Klimkowski 2016).

All these authors writing about entrepreneurship in translator education seem to embrace both the importance of a ‘can-do attitude’ and, although none of these authors is explicit about it, the related notion of self-efficacy. The latter has been defined by Bandura (1986: 391) as “people’s judgments of their capabilities to organise and execute courses of action required to attain designated types of performances”, or, more informally, by Mager (1992: 32) as “the belief that [students’] skills will enable them to tackle the tasks in question”, adding that for success, “skill alone is not enough”.

The concept of self-efficacy has most recently been taken up in translation studies by Haro-Soler/Kiraly (2019: 261; for detailed discussions of the self-efficacy concept in translation studies, see, for example, Bolaños-Medina 2014; Haro-Soler 2017), who suggest that a distinction can be drawn between ‘self-efficacy belief’ and ‘self-efficacy’, proposing that the term ‘self-efficacy belief’ refers to “the individual’s perception of [his or her] abilities”, while “the abilities that a person actually possesses to perform a specific task will be referred to […] as self-efficacy”. We agree with the need to distinguish between a self-efficacy belief and the object of that belief, the actual capability, ability, skill, or competence that the belief refers to. However, we prefer to stay with the terminology of Bandura’s Social Cognitive theory (Bandura 1986), where the terms ‘self-efficacy belief’ and ‘self-efficacy’ are synonymous. Instead, we refer to the object of a self-efficacy belief as a skill or competence. Thus, we understand a self-efficacy belief, or self-efficacy, to be a person’s subjective context-specific assessment of their competence for a specific task. Two neighbouring concepts that potentially overlap with self-efficacy are the construct of self-concept (see, for example, Bong/Skaalvik 2003) and one of its components, ‘perceived competence’. According to Hughes/Galbraith/White (2011: 278), self-efficacy beliefs can be elicited using ‘can’ questions (for example, ‘Can I do mathematics?’), while self-concept competency perceptions respond to “being” questions (for example, ‘Am I good at mathematics?’).

The sources of self-efficacy include enactive mastery experiences, vicarious experiences provided by social models, verbal persuasions and allied types of social influences, as well as physiological and affective states (Bandura 1997: 80–115). According to Mager (1992: 32), the four conditions which students need to be successful professionals are well-developed skills, self-effi-
cacy, opportunities to perform, and a supportive environment. A translator education programme provides many opportunities for learning the skills, as well as temporary supportive surroundings, but it is not as clear how the other conditions for success can be optimally met in traditional lectures and classroom activities.

Nevertheless, Haro-Soler (2018) identifies pedagogical approaches, teaching practices, and resources that can positively influence translation students’ self-efficacy. Such approaches include situated learning, that is, direct experience in situations that simulate professional practice; student-centred learning; collaborative learning; a collegial relationship between teachers and students; regular, constructive and well-structured personal feedback; opportunities to learn from peers, as well as from alumni who already work as translation professionals (Haro-Soler 2018: 384–388).

It is many of these recommended approaches, practices, and resources that STBs employ to provide the students with opportunities to be professional translators in a supportive environment, with the aim of boosting their self-efficacy while practising their translation skills. In an STB, students set up and run their own (real or simulated) business. Importantly, in this safe environment, they are also allowed to fail, while in real life, failure might end up being synonymous with financial ruin. The safety and support of the learning environment is likely to be conducive to the incremental development of the students’ confidence in their abilities and give them the impetus to seize business opportunities and accept some risk.

Self-efficacy has been found to govern one’s ambitions, behaviour and effort aspirations (Phan 2010: 298), in general, and in language learning, in particular (Rosselle 2010). In the literature on entrepreneurship outside translation studies, Piperopoulos/Dimov (2015) investigated the link between perceived self-efficacy and entrepreneurship. They found that the self-efficacy of students enrolled in different entrepreneurial courses at the same British university was influenced by the “context and pedagogical focus” of the entrepreneurship course, which explained the “lack of consensus regarding the impact of entrepreneurship education on students’ entrepreneurial intentions in earlier research”. In particular, Piperopoulos/Dimov’s findings indicate that a higher degree of self-efficacy can be related to lower entrepreneurial intentions in theoretically oriented courses, while higher entrepreneurial intentions were discovered in practically oriented courses. They claim that even though “self-efficacy beliefs suggest that students perceive themselves as well equipped to enact their entrepreneurial aspirations, framing entrepreneurial behavior in terms of what can be done versus what ought to be done affects the degree to which self-efficacy beliefs can result in entrepreneurial intention” (2015: 981).

Summarising, the overarching aim for translator trainers is to have students engage in a virtuous circle facilitated by their self-efficacy, which has the following five positive effects on students’ behaviour, based on Mager’s discussion (1992: 32) of the dynamics suggested by Bandura (1988: 280), and illustrated in Figure 1.
Starting with choice behaviour, students who have high self-efficacy are more likely to consider themselves able to carry out the task at hand, compared to those with low self-efficacy (see Bandura 1988: 280). Low self-efficacy can thus prevent students from entering fields in which they might excel (Mager 1992: 32). Once they have committed themselves to a task, students with high self-efficacy are also more likely to be more motivated and put more effort into bringing the task to successful completion than students with low self-efficacy. Similarly, students with high self-efficacy are more likely to persevere and “perceive failure as only a temporary setback” (Mager 1992: 32), compared to students with low self-efficacy. A high level of motivation and perseverance is accompanied by facilitative thought patterns as students with high self-efficacy are more likely to view difficult tasks with a positive outlook and find solutions for them than students with low self-efficacy. Finally, students with low self-efficacy will be more prone to experience stress and depression because they “expect their future performance will lead to failure” (Mager 1992: 32). Thus, students with higher self-efficacy are likely to be less vulnerable to stress and more empowered to make appropriate professional choices.

1.3. The relevance of entrepreneurship in the translation industry and translator education

From the above, it seems clear that entrepreneurship and self-efficacy merit academic attention. Also, there is a good reason these issues have met with considerable interest in translator training in recent years. In *How to Succeed as a Freelance Translator*, McKay (2015) notes striking differences between the translation profession and many other professions. Whereas working as a freelancer is typically considered a means to reap the rewards of years of hard work as an in-house employee, most translators start as freelancers. In fact, “many even remain self-employed for their whole careers” (McKay 2015: 22). In-house translators are usually people who have al-
ready earned their spurs, with years or even decades of experience. This remarkable circumstance calls for a business-oriented approach to translator training.

What makes the development of didactic processes to foster entrepreneurship in translator education a matter of pressing urgency are recent reports showing that – despite sustained growth in the translation industry – in-house translators are becoming an endangered species: for example, there is “a discernible upward trend [of outsourcing practices] within the EU [institutions] combined with in-house staff reductions” (Biel 2017) and less than 20% of the respondents to a UK survey were employed as in-house translators, whether at a governmental organisation or at a translation or other company (European Commission et al. 2016/17). The language industry is trending more and more toward freelancing. Medium-sized enterprises are gradually disappearing from the scene; they are taken over by large translation companies run by project managers, who, for lack of in-house translators, outsource the bulk of the translation projects to a pool of translators who work on a freelance basis. Another group of translators is, however, trying to do away with the wholesale concept by actively sourcing direct customers (ELIA et al. 2019), decidedly a task where entrepreneurial skills are vital.

With growing numbers of independent translators and an increasingly competitive global marketplace, the need for entrepreneurship skills and, consequently, for inquiries into the effectiveness of entrepreneurship training in translator education is more compelling than ever. If graduates are to stand a chance as language professionals, not only is it paramount that they are taught the tricks of the translation trade, they also need to feel empowered to work those tricks.

2. Entrepreneurial activities in STBs
This section reviews three categories of entrepreneurial activities that students enrolled in an STB course of an INSTB member institution engage in. First, we present descriptions of tasks that fall under the heading of a given activity category. Next, the descriptions are illustrated by examples of tasks carried out at one or more INSTB skills lab(s).

2.1. Planning and setting up a business
Before embarking upon a business enterprise, the students draw up a business plan that sheds light on the aims, requirements and feasibility of their undertaking. The business plan is the result of a market assessment and an analysis of competitors’ business models. It presents a profile of the business, including students’ task roles in the organisation and the intended customer base. It also identifies customer needs and explains how the business will meet them, details the services and products on offer, and provides insight into business finances (required start-up capital, expenses, and expected revenue).

Students are required to think about their position in the market. They also create a price list for their translation(-related) services. To be able to price their services profitably but competitively, they need to find out what other translation agencies charge for their services. Students also learn that going low on price does not necessarily make a company successful as they realise that salaries and other costs need to be covered and that a sizeable share of the revenue goes to taxes. This way, they learn to understand the risks that undercutting prices may entail for their profitability and the sustainability of the whole translation services sector.

Students are also encouraged to stake out their position on the market. At the Vrije Universiteit Brussels, students enrolled in the STB module enter a competition with fellow-students and think of ways to outsmart other STBs. At Utrecht University, the students are asked to select areas of

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2 This is all the more true with a global pandemic adversely affecting the business activities of independent professionals (before and after Covid-19, 58.1% of freelancers have seen their business "fall off a cliff", and 38.7% report that it has slowed down) (EUATC 2020: 84)”. https://euatc.org/industry-surveys/2020-european-language-industry-survey-full-slide-set/.
expertise and find ways to match their expertise with existing vertical markets. In 2018-2019, students of the University of Lille charted the demand for specific areas of expertise.

On the first days of the STB course, students of Utrecht and the University of Turku present their STBs to their fellow students. Decisions are made on a name, business slogan, and promotional strategies. In many cases, the companies put up a (mock) website with information about the agency, the services they offer, the task roles of the employees, and their respective fields of specialisation.

In the next phase, the plans are put into practice. The efficiency and the synergies of operation in a translation company depend highly on its organisational structure. Managerial action is needed to optimize workflows and specify the roles and responsibilities of the employees, matching available human resources to identified task profiles.

Role division is critical in all INSTB skills labs. For the sake of brevity, we list only the most common roles in the STBs: translator, project manager, terminologist, QA manager, reviser, and proof-reader/reviewer. Sometimes, an STB team member assumes not one but two roles in the course of an STB project.

We should point out that there are differences between the STBs in how they are managed and how students are assigned to specific roles. At Zuyd University of Applied Sciences, for instance, the course coordinator conducts a series of job interviews and casts the applicants to their roles. At the University of Lille, the application procedure is somewhat similar: an academic selection committee reads the CVs and conducts a series of interviews before allocating the candidates to their roles. Students of KU Leuven apply by sending in a CV, but candidates are chosen by fellow-students. At Utrecht University and the University of Turku, there is no application procedure: the students divide the roles among themselves, and in some cases, they may also rotate roles during the STB.

2.2. Sourcing and retaining clients

Once the student company is operational, it starts to interact with potential buyers (and, in some cases, providers of services). For this, it needs strategies for sourcing clients and liaising with them in the subsequent phases of service provision: the pre-processing phase, the production phase, and the post-production phase. As defined in the ISO 17100 standard Translation Services – Requirements for translation services (ISO 17100 2015), the activities pertaining to the pre-processing phase include enquiry, quotation, negotiation, agreement, and project preparation. An activity that belongs to the production phase is project specification, and the post-production activities comprise product delivery, billing, service feedback, and closing administration.

To attract clients, a company has to be visible, and time and money need to be invested in “branding”, for example, through website creation, outreach emails, social media marketing, and virtual and non-virtual networking (see EMT Board 2017: 10-11). What merits special attention here, is so-called storytelling: a good many entrepreneurs believe that corporate stories allow companies to underline their uniqueness, to share corporate values and make them approachable.

Students of Zuyd design a real website. Via personal networks and the network of their professional coach, they start prospecting clients. They also build up their reputation at fairs and conferences (for example, Tolk-en vertaalcongres), where they meet up with potential buyers. At the University of Lille, one student is tasked with posting web content on the TSM course website, Facebook, Twitter and LinkedIn. The job of this communication officer is to put offered theory on “e-reputation” into practice by sharing the team’s enthusiasm and expertise with the world.

Communication is vital in many of these activities: time and again, a company is required to adapt to unique communication situations where the client’s wants and needs are central. Tapping into those wants and needs is paramount, not only when sourcing clients but throughout the translation process, as translation service provision is a co-creative process. When successful, a co-
creative process with a client goes a long way to ensure customer delight (Kerremans/van Egdom 2018: 239), providing a first push towards customer retention.

The STBs involved in this study exercise caution to ensure that the students do not undercut the services of actual practising professional translators by providing free translation work for assignments that would otherwise be carried out at market rates. It is crucial that the students are discerning enough and only accept non-commercial projects. Such examples include translations of research material for MA or PhD students, work for non-profit organisations, or even translating a diary by a German grandmother for a non-German speaking parent of a student.

Within fictitious client scenarios, the STBs have encountered at least two subtypes of client. On the one hand, there are clients who have a genuine use for the translation but who do not pay for the work. On the other hand, some STBs also have clients who commission work that they do not actually need and do not pay for. Such clients include real translation companies with links to the INSTB institutions who have agreed to act as fictitious clients. This allows the students to practise another aspect of their entrepreneurship skills in prospecting clients, that is, convincing an already known client that their STB can provide the best service, especially if competing with other STBs for the same client. A valuable aspect of this scenario is the feedback that the client companies can provide to the students.

Even within a fictitious scenario, students can develop their client relations skills. At Utrecht University, for example, they are encouraged to request additional information from the customer (for example, technical information, documentation) in the course of a project and, in case of deficient source material, to provide language consultancy. This also helps customers understand that every text requires a unique communicative approach.

At Zuyd University of Applied Sciences, the processes of product delivery and post-production communication are standardised: each delivery comes with an invoice and terms of payment. Additionally, a standard feedback form is used, allowing the management team and the teacher coordinator to monitor the level of customer satisfaction. To improve client retention, online and offline PR initiatives are rolled out, the highlight being an on-campus get-together with the clients.

One of the benefits of the fictitious scenario is that it makes it possible to create a low-risk work environment that simulates many of the challenges in the life of a translation professional. In Lille and Utrecht, for example, some disruptive elements in the form of intentional miscalculations in the number of words for a project, a late request for including specific terminology, a request for an earlier delivery date or additional translation work may be introduced by the trainers. In such situations, students need to come up with solutions that keep the customer satisfied while still keeping an eye on the interests of the company.

### 2.3. Managing internal processes: internal communication and workflow management

A well-thought-out business plan does not guarantee a smooth running of affairs, let alone continuous success. In an era of business agility, a business owner has to be on top of things and find out what works in a specific context. Entrepreneurism requires constant tweaking of workflows in a climate of agreeable, seamless and efficient communication among employees. Members of a team should respect each other’s personality, feel appreciated, and the whole team should be able to share a sense of ownership (Kerremans/van Egdom 2018: 301).

The importance of internal communication in translation projects cannot be overstated, and aspects of internal communication are subject to self-assessment or even evaluation in many STB courses. In some cases, internal communication is – with the consent of the students – even recorded: at the University of Lille, communication does not take place via email but in the online collaboration environment Slack (www.slack.com). This way, the course coordinators can keep tabs on the processes.
Internal communication processes can be an integral part of reports, management reviews and other forms of formal feedback that are produced in the course of an STB module. At Zuyd University of Applied Sciences, for example, students discuss internal processes every other week. Pressing matters are dealt with by the management team. When a problem is too challenging to tackle, the management team discusses the matter at hand with the CEO (the skills lab coordinator).

At Ghent University, the members of each student company carry out self-assessments and peer-assessments on both professional and soft skills in the middle of the academic year. As a group, they decide on improvements, and as individuals, they identify one or two skills they would like to improve by the end of the year.

At the end of each week, the Lille STB management organises a post-mortem meeting. The STB team processes so-called task-diagnostic feedback, analysing what went well and what should be improved. Keeping a tight rein on professional processes, the management looks for ways to reinforce structures that prove to be efficient and to improve services, for instance, by tweaking workflows, discarding services or introducing new ones.

Less formal, but no less important, are team-building activities. For example, to boost motivation, the Zuyd STB teams can spend the money they have made with real assignments on activities of their choice and even team outings.

3. Method
To gauge the effect of entrepreneurial STB activities, we designed and tested a survey instrument for perceived entrepreneurial competence and self-efficacy for planning, setting up and managing a translating organisation. We made use of part of a 100-item survey data set collected for assessing the acquisition of soft skills and translation-specific professional skills in the STB setting in the academic years 2017-2018 and 2018-2019 (Kerremans et al. 2018). To select adequate questionnaire items on self-efficacy and perceived competence among the 100 questions on translation-related and generic competences, we conducted an exploratory factor analysis (EFA) on the data, which is a method for explaining the correlations among variables in terms of more fundamental entities called factors or dimensions (see, for example, Cudeck 2000: 265).

3.1. Data collection
Upon enrolment in the STB courses, students of 8 different INSTB institutions (KU Leuven [BE], Ghent University [BE], Swansea University [UK], University of Exeter [UK], University of Lille [FR], University of Turku [FI], Vrije Universiteit Brussel [BE], and Zuyd University of Applied Sciences [NL]) were asked to fill out a questionnaire in the online survey tool Webropol. Besides 15 questions on personal, educational, and professional background, they filled out a 100-item questionnaire on time management skills, teamwork skills, interpersonal skills, creativity skills, and professional skills (related to management, service provision, production, support, and technology). They were asked to do so prior to or in the first week of the simulation course and in the final week of the course. Since filling out the questionnaire took more than half an hour, some students only provided pre-test data. In some cases, a student who did not respond to the pre-test questionnaire took part in the post-test survey. The data were collected anonymously and with the consent of the participants; they were not used for course assessment. Because of the anonymity of the data, the pre-test and post-test responses cannot be paired, which limits the possibilities for testing the significance of the results.

We received 416 responses in total. After cleaning the data for multivariate non-normality, a subset of 335 responses was used for the EFA to identify factors in the data and to select a set of suitable questionnaire items that show high loadings on the factors. The resulting scale (see Table 2) was then used for a comparison of pre-test and post-test means in a final set of 231 responses from 5 INSTB universities where the pre-test and post-test responses come from the same respon-
dents, even if the responses cannot be paired (Table 1). With KU Leuven and the University of Lille, however, there are some minor differences in the number of pre-test and post-test responses.

<table>
<thead>
<tr>
<th>University</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Total</th>
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</tr>
<tr>
<td>Total</td>
<td>116</td>
<td>115</td>
<td>231</td>
</tr>
</tbody>
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Table 1. Institution-specific and phase-specific distribution of analysis data

### 3.2. Instrumentation

The survey background items were measured at a nominal level, and the skills items were measured at an ordinal level using a 5-point Likert-type scale, with an “I don’t know” option placed as the lowest category. The response scale was presented in the following form, from left to right: I don’t know (0); I strongly disagree (1); I disagree (2); I agree (3); I strongly agree (4). The response ‘I don’t know’ was given the lowest score, as an ‘I don’t know’ answer was considered to reflect either a lack of self-confidence or a lack of familiarity with the domain. As the ‘I don’t know’ response was given a score of zero, the response scale is skewed towards negative assessments of self-efficacy or perceived competence. However, as we are interested in the pre-test-post-test difference, the absolute levels of self-efficacy or perceived competence are not relevant to the study. We report the results of the pre-test-post-test comparison both as standardised means and as means of the absolute values of the items on each factor.

### 3.3. Exploratory factor analysis

In order to create a sample that reflects both beginners’ self-efficacy and advanced students’ self-efficacy, the exploratory factor analysis was conducted on 335 responses from both the pre-test and the post-test data, using primarily the software FACTOR (see, for example, Baglin 2014) but carrying out some of the preliminary work in the Statistical Package for the Social Sciences SPSS 25.

The univariate skewness and kurtosis for all items remained below the threshold values (skewness < 2; kurtosis < 7) that would indicate substantial univariate non-normality in a large sample (West/Finch/Curran 1995). This acceptable degree of univariate normality was not matched with enough multivariate normality, however: Mardia’s kurtosis multivariate coefficient (32.622; \( p < 0.001 \)) indicated the absence of multivariate normality and thus supported the use of polychoric correlations and Robust Diagonally Weighted Least Squares in the EFA (see, for example, Yang-Wallentin/Jöreskog/Luo 2010). The KMO measure of sampling adequacy was good, 0.875, and also Bartlett’s test of sphericity was significant, indicating inter-correlation of the items and thus supporting the factorability of the data.

Starting with 35 items selected from the original 100-item scale based on their face validity as indicators of self-efficacy for planning, setting up, and running a translating organisation or as indicators of perceived entrepreneurial competence, poorly performing items were iteratively removed from the scale, leaving 20 items as strong candidates. For this preliminary scale, the eigenvalue < 1 criterion in FACTOR – as well as the scree plot inspected in SPSS 25 – pointed to a two-factor solution. Using the oblique Promax rotation that allows the factors to correlate, a simple
solution in the pattern matrix could be found. The cumulative proportion of variance for the two factors was 0.491. All items showed high loadings, ranging from 0.472 to 0.970 on either of the factors (Table 3). The inter-factor correlation between the factors that were named as Perceived entrepreneurial competence and Self-efficacy for planning, setup and management was 0.470.

<table>
<thead>
<tr>
<th>Item wording</th>
<th>Perceived entrepreneurial competence</th>
<th>Self-efficacy for planning, setup and management</th>
</tr>
</thead>
<tbody>
<tr>
<td>When solving a problem, I try to rethink my current understanding of an issue.</td>
<td>0.712</td>
<td></td>
</tr>
<tr>
<td>I persevere when things are not working out.</td>
<td>0.695</td>
<td></td>
</tr>
<tr>
<td>I take time to investigate how things are working, even when there are no current problems.</td>
<td>0.661</td>
<td></td>
</tr>
<tr>
<td>I always look for the causes of problems so that I can understand what’s really going on.</td>
<td>0.658</td>
<td></td>
</tr>
<tr>
<td>When gathering information about an issue, I explore solutions that have worked elsewhere in the past.</td>
<td>0.645</td>
<td></td>
</tr>
<tr>
<td>I study my audiences’ needs, decide what I want to say and then figure out the best way to say it.</td>
<td>0.618</td>
<td></td>
</tr>
<tr>
<td>I make sure all possibilities are explored.</td>
<td>0.619</td>
<td></td>
</tr>
<tr>
<td>I collaborate with others to solve problems using a variety of problem-solving tools and techniques.</td>
<td>0.529</td>
<td></td>
</tr>
<tr>
<td>I set myself specific and clearly defined goals.</td>
<td>0.516</td>
<td></td>
</tr>
<tr>
<td>I see problems, complaints and bottlenecks as opportunities rather than as issues.</td>
<td>0.458</td>
<td></td>
</tr>
<tr>
<td>I am able to take care of the billing of a translation project.</td>
<td>0.970</td>
<td></td>
</tr>
<tr>
<td>I am able to keep account of the receivables and payables of a translation company.</td>
<td>0.893</td>
<td></td>
</tr>
<tr>
<td>I am able to set the price for a translation project.</td>
<td>0.778</td>
<td></td>
</tr>
<tr>
<td>I am able to monitor a project and track its evolution.</td>
<td>0.710</td>
<td></td>
</tr>
<tr>
<td>I know how to calculate the gross margin of a project.</td>
<td>0.681</td>
<td></td>
</tr>
<tr>
<td>I would be able to set up a translation organisation (e.g., a translation company/department).</td>
<td>0.658</td>
<td></td>
</tr>
<tr>
<td>I am able to assess the workload of a translation project and to schedule the project.</td>
<td>0.604</td>
<td></td>
</tr>
<tr>
<td>I can analyse any type of (translation-related) project.</td>
<td>0.547</td>
<td></td>
</tr>
<tr>
<td>I am able to manage a translation project so that it will be finished on time.</td>
<td>0.510</td>
<td></td>
</tr>
<tr>
<td>I can assess the risks of a translation project.</td>
<td>0.472</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Pattern matrix from the exploratory factor analysis of survey items on Perceived entrepreneurial competence and Self-efficacy for planning, setup and management (coefficients below 0.3 omitted)

The items that loaded on the factor Perceived Entrepreneurial competence are statements of personal tendency or attitude. The items that loaded on the factor Self-efficacy for planning, setup and management are “can do” statements of capability. The topics of the items that group under the factor Perceived Entrepreneurial competence include problem solving, innovativeness, perse-
verance, communication strategy, goal-orientation, and a solution-oriented approach. The topics of the items grouping under the factor Self-efficacy for planning, setup and management include financial activities, project management, setting up a translating organisation, assessing project workload and planning schedules, and assessing risks.

We calculated the internal consistency of the item sets associated with the factors. An analysis in SPSS 25 showed the following Cronbach’s alpha coefficients: Perceived entrepreneurial competence: pre-test data: $\alpha = 0.82$; post-test data: $\alpha = 0.81$. Entrepreneurial self-efficacy in planning, setting up, and running a translation organisation: pre-test data: $\alpha = 0.85$; post-test data: $\alpha = 0.85$.

4. **Entrepreneurial self-efficacy and perceived entrepreneurial competence in STBs: first results**

To test the hypothesis that STBs have a positive effect on Perceived entrepreneurial competence and Self-efficacy for planning, setup and management, we calculated the aggregated means of the items that loaded on each factor (Table 3), using the data that included the same respondents in the pre-test and post-test group (Table 1). A comparison of the means in the pre-test and post-test data shows improvement both in the self-efficacy for planning, setting up, and managing a translating organisation and in perceived entrepreneurial competence.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test mean</th>
<th>Post-test mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived entrepreneurial competence</td>
<td>2.73 (-0.21)</td>
<td>2.97 (0.21)</td>
</tr>
<tr>
<td>Self-efficacy for planning, setup and management</td>
<td>1.95 (-0.27)</td>
<td>2.40 (0.27)</td>
</tr>
</tbody>
</table>

Table 3. Aggregated means of the factor items in the pre-test and post-test data (standardised scores in parentheses)

Due to the anonymity of the data, the pre-test and post-test responses could not be paired, and the significance of the differences could not be reliably determined. Thus, the results are to be treated only as a tentative indication of potential positive effects of pedagogical translation company simulations on self-efficacy for planning, setting up, and managing a translating organisation and on perceived entrepreneurial competence.

5. **Conclusions and limitations of the study**

This paper reviewed entrepreneurial competences for their relevance to translation students and described a set of pedagogical practices designed to develop them in translation company simulations. As the business aspects of translation are coming to the fore in translator training, translation students will benefit if translator education curricula are expanded to include the development of entrepreneurial competence and self-efficacy.

To measure student progress in translation company simulations, a survey instrument was developed to gauge the factors of Perceived entrepreneurial competence and Self-efficacy for planning, setting up, and managing a translating organisation. The scale items in the dimension of Perceived entrepreneurial competence turn out to coincide with the entrepreneurial values as discussed by Vandepitte (2009), whereas the scale items in the dimension Self-efficacy for planning, setting up, and managing a translating organisation mirror many of the activities discussed in the description of the didactic STB method.

The instrument was tested on survey data submitted by translation students before and after taking part in a translation company simulation. The results showed a positive effect of the simulation course on both factors, but the statistical significance of the result could not be reliably assessed due to the anonymity of the response data. The results can be treated as a tentative indica-
tion of the positive pedagogical impact of the translation company simulation method. However, further studies with more robust research designs are needed to support the results.

Research into the effectiveness of translation company simulations in translator training is still ongoing. For quantitative studies on the learning effects of simulation methods, international surveys carried out as a cooperation of several translator education programmes provide many advantages, for example, large sample sizes and the possibility of making comparisons across different teaching settings.

Some future challenges for research include comparing the pedagogical effects of translation company simulations to the effects of internships as well as the identification of effective pedagogical practices by comparing activities and results in different translator education programmes. For such comparisons, instruments like the survey scale designed in the present study are a necessary tool.

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