**Studia Linguistica Universitatis Iagellonicae Cracoviensis 142 (2025): 227–245**
https://doi.org/10.4467/20834624SL.25.014.22380
https://ejournals.eu/czasopismo/studia-linguistica-uic

MARIUSZ MARCZAK
Jagiellonian University in Kraków
mariusz.marczak@uj.edu.pl
ORCID: 0000-0002-0148-2385

JOANNA ZIOBRO
State University of Applied Sciences in Krosno
joanna.ziobro@pans.krosno.pl
ORCID: 0000-0002-7993-6105

SACHIYO SHEARMAN
East Carolina University
shearmans@ecu.edu
ORCID: 0000-0002-0506-9942

# A TALE OF TWO TRUTHS: ON THE DEGREE OF COLLABORATIVE ACTIONS IN STUDENT-STUDENT COMMUNICATION IMPLEMENTED IN ONLINE INTERCULTURAL EXCHANGES

**Keywords:** intercultural communication, interactive actions, online intercultural exchanges, telecollaboration, collaborative learning

## Abstract

21st-century translator education aims to prepare futureproof professionals who will actively respond to the volatility (Rodríguez de Céspedes 2019; Marczak 2024) and increasing diversification (Ehrensberger-Dow and Massey 2022) of the LSP industry. Amid calls for situated (Risku 2018), experiential (Pietrzak and Kornacki 2021) and collaborative (Kiraly 2016) learning, (tele)collaboration projects have been used to develop desired competences (Mastela 2022). The challenge lies in scarcity of data on the communication practices in which project participants engage. This paper reports on a study exploring students' individual actions for social interaction (cf. Chiu 2000) in an Online Intercultural Exchange (OIE) to seek evidence of genuine collaboration and to consider the didactic implications of the findings for T&I instructors.

## 1. Telecollaborative projects at academic level

The implementation of telecollaboration in various educational context spans well over 20 years, within which its status has substantially grown from that of an optional teaching and learning mode in foreign language education to what could now be called the mainstream (Lewis and O'Dowd 2016). Moreover, it has by far transcended the boundaries of foreign language education, where it largely initiated, as it is now being used extensively in tertiary (academic) level, to internationalize both the curriculum and students' learning experience (Jager et al. 2019). As a result, telecollaboration has notably increased its thematic scope to cover intercultural learning (O'Dowd and Dooly 2020), translation (Krajka and Marczak 2017; Marczak 2024), the development of students' socio-political perspectives (Soliya (n.d.); Helm 2016) and a range of professional competences relating to the business, education, environment and health (Guidry et al. 2020), as well as science, technology, engineering and mathematics (cf. Smyrnova-Trybulska 2019).

### 1.1 Telecollaboration formats in academic programmes

Over the years, telecollaboration has been implemented in various formats, of which three seem to be emblematic of the change that the teaching and learning mode has undergone: e-tandems (Jager et al. 2016), blended learning (Jager et al. 2019) and virtual/online exchanges (Jager et al. 2019; Marczak 2024). E-tandems tend to be stand-alone tasks which focus mostly on student-student (a)synchronous interaction aimed to facilitate peer-to-peer (foreign language) learning, or – in its updated form – product-oriented collaborative learning activities (Marczak 2019). It is largely student-controlled, albeit it is usually the teacher who sets its framework. Although communication in e-tandems was originally mediated by email, it has now advanced towards more elaborate tools, including videoconferencing (Dooly 2008), text messaging, 3D virtual worlds and webcam imagery (Guth and Helm 2010).

Unlike e-tandems, blended learning tends to involve telecollaboration performed by student teams, and it is normally a constituent of a learning programme with varying degrees of both on-site and online student interaction. Conventionally, the online component involves class-to-class interaction, while on-site work focuses on preparatory and follow-up work, with the latter aimed to stimulate students' reflection on experience. Blended learning may, or may not, result in the creation of a joint product, but it is usually supposed to foster intercultural (language) learning (Sharma 2017).

Last but not least, telecollaborative exchanges, often known as Virtual Exchanges (VEs) or Online Intercultural Exchanges (OIEs), involve longer-term projects, more elaborate in form, where international, or transnational (cf. O'Dowd 2020), student groups from physically distant locations collaborate towards a joint product. During the process they are expected to develop language, intercultural, communicative and digital competences, as well as global citizenship (O'Dowd 2020; Turula 2024), which are likely to facilitate their future professional careers (Nissen 2016; O'Dowd et al. 2020).

As telecollaborative exchanges are amenable to modification in design and purpose, they are likely to be utilized in various educational contexts, but they are essentially expected to involve sustained interaction and intensive collaboration which promotes learning (O'Dowd and Dooly 2020).

The now-well-established position of VEs in academic education is evidenced by numerous examples of such projects, which have been reported to date, including numerous iterations of the Global Understanding (GU) project, coordinated by the Global Partners in Education (GPE) consortium headquartered at East Carolina University in Greenville, NC, USA (GPE 2022a), the European Union's Erasmus+ Virtual Exchange scheme (Helm and van der Velden 2020); the EVOLVE project (EVOLVE Project Team 2020); the virtual exchange projects funded by the Stevens Initiative (2020), or the VE projects involving students from 34 teacher training institutions, which have been reported on by the EVALUATE Group (2019). However, what remains a challenge is evidencing the learning outcomes which VEs are credited with.

### 1.2 Vicarious confirmation of efficacy and the need for solid evidence

The problem with establishing the actual efficacy of VEs in generating the learning outcomes which are attributed to it is two-fold. On the one hand, there is the fallacy of the belief that "students will somehow automatically develop their intercultural and digital competences merely by being engaged in online inter-actions with members of other cultures" (O'Dowd et al. 2020: 147). On the other hand, it is the scope and methodology of research into learning gains which VEs are likely to promote. The notion that VEs set the path for a self-perpetuating learning process has been sufficiently questioned, e.g. by Kramsch (2014), who reported not only varying degrees of student involvement in VEs, but also the artificiality of communicative interactions. At the same time, multiple other studies have reportedly evidenced the power of VEs – as administered in various educational settings – to foster the development of various outcomes. The learning gains reported comprise increases in students' intercultural (communication) competence, readiness to embark on physical mobility and course satisfaction (GPE 2022b; 2023; 2024), critical thinking, media literacy, online and social media skills, mediation skills and conflict resolution skills (Helm and van der Velden 2020), digital-pedagogical and linguistic competences (EVALUATE Group 2019), team skills (Guth and Helm 2017), the ability to curate and create online resources (EVOLVE Project Team 2020), as well as lower interactional anxiety (GPE 2022b; 2023; 2024).

Optimistic as the above-cited results may be, they must be approached with caution due to the research methodology which they involved. They were all retrospective in nature and largely relied on students' or course instructors' accounts of VE practices and reflections on experience. Thus, while the results need not be discredited, they are indicative of a more general tendency to explore VE learning gains through anecdotal evidence (cf. Kiraly 2000; van Egdom et al. 2020; Mastela 2022), with little research into the nature of concrete practices in which VE participants engage.

It is precisely with that in mind that O'Dowd, Sauro, and Spector-Cohen (2020) propose implementing forms of pedagogical mentoring in order to support students' learning in OIEs. They distinguish between three major types of mentoring: (i) introducing students to examples of online interaction strategies prior to the exchange, (ii) leading students' online interactions by instructors who function as facilitators, and (iii) integrating students' own online interactions into class work.

In Type 1 mentoring, students are presented samples of online interactions to stimulate discussion about the factors which affect the quality of communicative exchanges, including interactional norms and strategies and the choice of language forms or discussion topics (cf. Müller-Hartmann, O'Dowd 2017). Type 2 mentoring involves instructors directly in student-student interactions with a view to mediating communication by teachers opening and leading online discussions, as well as by setting telecollaborative activities (cf. Sharing Perspectives Foundation 2018). Finally, Type 3 mentoring consists in instructors collecting examples of students' own performance in online interactions and making students reflect on the interactions observed and explore possible outcomes of particular interactional choices. This kind of approach has been implemented and reported on by Cunnigham and Vyatkina (2012) and Cunnigham (2016), with the latter proposing that self-reflection is instrumental in teaching telecollaboration to students.

Below is a discussion of Chiu's (2000) dimensions of individual actions in online interactions which can be used to facilitate students' reflection on their own telecollaborative performance, followed by research into the actual implementation of individual interactive actions an OIE as a means of facilitating genuine telecollaboration.

## 2. Dimensions of individual interactive actions in collaborative work

Understanding the intricacies of individual actions involved in group work can provide insight into the nature of interaction and dynamics of group problem-solving. A closer analysis of the actions and sequences of interactions undertaken by group members can help to identify conditions that foster or hinder successful collaboration. To that end, a taxonomy such as that proposed by Chiu (2000) can be used to explore student-student communication in an intercultural virtual exchange, to seek evidence of genuine collaboration.

Chiu (2000) posits that individual interactive actions have three critical dimensions: Evaluation of Previous Action (EPA), Knowledge Content (KC) and Invitational Form (IF). The first dimension (EPA) refers to how the speaker responds to the previous action performed by another person. This response can be supportive (+), critical (–), or unresponsive (0).

The Knowledge Content (KC) dimension relates to the problem knowledge provided during interaction and comprises three possible forms: contributions, repetitions, and null content. Contributions (C) entail new problem-solving ideas introduced into the interaction. They include, but are not limited to, new goals,

proposals, consequences, justifications, critiques or alternatives. Contributions can provide a map of the group's problem-solving. Repetitions (R) restate the knowledge content of the previous actions (not necessarily the most recent ones); thus they can indicate the level of understanding and degree of agreement, whereas Null Actions (N) do not carry any problem-related content. They usually occur as a form of acknowledgement, general question, or simple evaluation. As these actions are often brief, they provide feedback in an unintrusive manner, without interrupting the speaker (Chiu 2000).

As Chiu (2000) observes, each of the above-cited individual actions can be attributed several interactive properties. Participants of an interaction can support the previous action using supportive actions (+), which are words that reinforce the previous idea, indicate agreement, foster positive social relationships, while maintaining the current problem-solving direction. Supportive actions may include contributions, repetitions and null actions.

Supportive Contributions (+C) constitute a justification of previous actions, underline beneficial consequences, or continue with an appropriate action. Supportive contributions can be additions, which indicate understanding or acceptance of previous action (e.g. *That is how we normally do it*), proposals, which suggest less certainty and test the speaker's ideas or others' understanding (e.g. *That will give you a better idea of what she means*), and commands, which require others to perform consequent actions (e.g. *So, let's do it like this*).

Supportive Repetitions (+R) indicate understanding, and they can be confirmations of understanding, through which speaker is trying to make sense of something (e.g. *You enter through the right door*), verifications, which check other people's understanding (e.g. *See how I/we/he, etc. can do it?*), and repeat commands, which are used to relay instruction (e.g. *Just check this information on the Internet*).

Supportive Null Actions (+N) are neither contributions nor repetitions, and they can be divided into: Acknowledgements (e.g. *Yeah, yeah, uh-huh*, [nods]); Supportive requests (e.g. *What's next?*); Tag questions seeking confirmation (e.g. *Right?*); Commands which affirm previous proposals (e.g. *Do it!*).

Another type of actions are Critical actions (–), which are words of critique that identify errors in thinking, suggest alternatives/alterations or challenge the previous proposal, thus potentially altering the problem-solving direction. They indicate rejection of at least part of the preceding conversational action of another person. Critical actions can also take the form of contributions, critical repetitions, and null actions.

Critical Contributions (–C) critique previous actions, introduce new ideas which reject at least part of the previous action, introduce alternatives or show flaws in the reasoning or negative consequences. They can be further divided into: Critiques (e.g. *They do it BEFORE, not on this day*); Counter-proposals, which soften critical suggestions by inviting others to evaluate the criticism (e.g. *Wouldn't it be better to do it this way?*); Counter-orders, which criticize the previous action and call the group to act on a new order (e.g. *Multiply* $12 \times 2$, *not* $12 \times 5$).

Critical Repetitions (–R) indicate critique or reject previous actions, and they fall into: Repetitions of critique, which involves repeating an earlier action (e.g. *You enter*

*through the RIGHT door*) or indicating violation of an earlier action (e.g. *You said very few people do it like this*), Repetitions of exact challenge (e.g. *Didn't you say that we need to do it this way?*); and Repetitions of counter-orders (e.g. *Do it like I told you*).

Critical null actions (–N) constitute neither contributions nor repetitions, and they can be: Denials, which provide negative covert feedback (e.g. *No, no, no*); General challenges, which, unlike exact challenges, do not specify the area of concern (e.g. *Why?*); and Halts, which prevent someone from performing an action (e.g. *Stop!*).

Therefore, interaction participants can criticize the previous action by contributing new ideas (critiques, counterproposals, and counter-orders), repeating past actions (repeat critiques, exact challenges, and repeat counter-orders), and performing null actions (denials, general challenges, and halts).

The third type of actions are Unresponsive actions (0), which are words that ignore (do not relate to) the preceding conversational action of another person. They do not evaluate the proposal and may introduce new topics, divert the conversation from the current problem-solving approach, possibly undermining the social cohesion of the communicative endeavours. Unresponsive actions can fall into the following categories: unresponsive contributions, unresponsive repetitions, and unresponsive null actions.

Unresponsive Contributions (0C) ignore previous actions and contribute new ideas. They could be: Announcements, which initiate a new topic of discussion or are part of brainstorming (e.g. *We have to do it like this.* / *We could try and ask someone online*); Proposals, which initiate a new topic of discussion, or elicit evaluations or information from the other participants (e.g. *Are we doing it right?*); and Sudden orders, which demand implementation without requesting any input (e.g. *Open the website*).

Unresponsive Repetitions (0R) do not refer to previous actions, and they can be: Nostalgic actions, which constitute an attempt aimed at building new understanding of an old idea (e.g. *This is not a religious holiday!*); Nostalgic requests, which engage others to consider an old idea (e.g. *You fold the paper in four or in two?*); and Nostalgic orders, which demand others to act on a past idea (e.g. *Do it like I told you again*).

Unresponsive Null Actions (0N) ignore previous actions but do not set a new direction for the conversation. They can comprise: External actions, which indicate interest in something unrelated to the discussion and reveal that the speaker is attending to something other than the problem-solving activity, such as looking out the window (e.g. *What nice weather*); General requests, which invite others to participate in new actions or are used to summarize what has been done so far (e.g. *So, what now?* / *Where are we?*); and Starters, which initiate activities without specific instructions (e.g. *Get to it!*).

To reiterate, interaction participants can ignore the previous action by contributing new ideas (announcements, proposals, and sudden orders), repeating past actions (nostalgic actions, nostalgic requests, and nostalgic orders), and performing null actions (external actions, general requests, and starters).

The invitational form (IF) dimension encourages participation from the audience to different degrees, and it comprises statements, questions, and commands. Statements (__.) declare information without seeking input explicitly, without requiring participation from others. They may vary in the level of interactivity, including definitive statements, which assert facts, discourage further discussion (e.g. *Two times six is twelve*), uncertain statements, which invite input on the validity of a statement (e.g. *Two times six seems like twelve*), summary statements, which summarize ideas already accepted by the group (e.g. *So we got twelve miles by multiplying two hours and six miles per hour*) and goal statements, which set a particular target for the group (e.g. *We need to do it this way*).

Questions (?) invite participation in an intrusive manner by highlighting information gaps to be filled by the interaction participants. Depending on their intrusiveness, questions can be rhetorical, which do not require any response (e.g. *Can't you do anything right?*), tag questions, which call for simple acknowledgment (e.g. *Two times six is twelve, right?*), choice questions, which offer multiple possibilities (e.g. *Should we add or multiply?*), open questions, which invite a variety of responses (e.g. *What should we do next?*), and directive questions, which require the implementation of a proposal (e.g. *Could you please calculate it?*).

Commands (!) demand participation with a varying degree of specificity, and they may classify as: open commands, which request general input (e.g. *Give me your opinion on that*), closed commands, which specify a particular action (e.g. *Now measure the length*) and halt commands, which demand inaction, thus discouraging participation (e.g. *Wait!*).

Chiu (2000) states that all individual actions have the three dimensions discussed above, i.e. evaluation, knowledge content invitational form, and analyzing them will be useful in exploring the nuanced nature and quality of collaboration. Halliday and Hasan (1993) seem to share that viewpoint proposing that contributions reveal problem-solving paths, while repetitions demarcate areas of shared understanding. Chiu (2000) adds that evaluations, which relate to previous actions, imply coherence in a conversation, whereas multiple supportive or critical evaluations indicate increased mutual responsiveness of the collaborators in question.

In line with the above, Chiu (2000) considers the following actions to be particularly indicative of active collaboration, which he views as the joint construction of knowledge: Supportive and Critical Contributions (+C_. +C? –C_. –C?), Supportive statements (+R_. +N.), and Questions (?).

## 3. Action research on student interactions in the GPE XVI virtual exchange

### 3.1 Research context

The research was administered during the 16th iteration of the Global Understanding (GU) project, involving a series of intercultural virtual exchanges which were held under the supervision of the Global Partners in Education (GPE). The major goal of the US-based international consortium of nearly 50 academic institutions

from 31 countries, which is headquartered at East Carolina University (ECU) in Greenville, NC, is to prepare university-level students to negotiate interculturally diverse environments by honing their intercultural communication and collaboration skills via programmed virtual exchanges involving (a)synchronous in- and out-of-class student interaction and mediated by videoconferencing tools, largely Zoom (zoom.com).

An overview of the project, including the student experience, project themes and outcomes, is available on the GPE website (GPE 2022a), thus what follows is a description of the details necessary to characterize the context of the action research in question. The research was conducted during four IVEs between students from the Carpathian State College (CSC), which has now been renamed as State University of Applied Sciences in Krosno, Poland, Fatih Sultan Mehmet Vakif University in Istanbul, Turkey (FSM) and East Carolina University in Greenville, NC, USA (ECU), as well as the Jagiellonian University in Kraków (UJ), Poland, Université de Tours in France (UT) and Modern University of Business and Science in Beirut, Lebanon (MUBS), who were partnered up as follows: CSC-FSM, CSC-ECU, UJ-UT and UJ-MUBS. The IVEs involved a total of 97 students, including 10 UJ students, 18 UT students, 27 MUBS students, 11 CSC students, 12 FSM students and 19 ECU students, from whom members of the research sample were recruited.

Each of the aforementioned IVEs involved between five and six online link days on which students from the paired institutions discussed topics such as Personal Introductions, College Life and Education, Family Life, Work and Careers, Stereotypes and Prejudices, Religion and the Meaning of Life, Religion, Food and Beverages, Tourism and the Arts. At each institution, the first link day featured a whole-class videoconference dedicated to personal introductions, while the final day's videoconference consisted in students sharing their post-experience reflections. On the remaining link days the students worked in two groups (A and B), alternating between Zoom videoconferences and breakout room meetings in smaller teams (pods), and discussed the set topics.

Simultaneously, the IVE participants worked out of class in asynchronous mode, using an online forum on the dedicated GPE Connect platform, with their pod partners to complete the Collaborative Project (CP) where they were tasked with creating negotiated products, e.g. websites, multimedia presentations, online quizzes, infographics, flyers, brochures or animations related to selected goals from the United Nations' 2030 Agenda for Sustainable Development (United Nations 2015). It is a record of students' text-based conversations within the CP that provided a corpus of data which was examined for student interaction.

### 3.2 Research objectives

The research was administered between November 2022 and January 2023 with a view to investigating the nature of student-student communication in an intercultural virtual exchange, seeking linguistic evidence of genuine collaboration, or lack of thereof and considering the didactic implications of the findings for the planning

and design of improved future exchanges. The research was driven by two major research questions:

1. To what extent do students genuinely collaborate in the CP without prior instruction on collaborative interaction?
2. Does explicit instruction on collaborative interaction increase student-student collaboration?

It must be explained at this point that the CP participants' textual communicative exchanges were analyzed for signs of genuine collaboration with regard to the dimensions of individual interactive actions, as they have been proposed by Chiu (2000).

### 3.3 *Sampling method and research corpus*

The research participants were recruited from a total of 16 Collaborative Projects which were completed as part of the aforementioned four IVEs involving the following institutional partners: CSC-FSM, CSC-ECU, UJ-UT and UJ-MUBS. The non-random, purposive sampling method was used to select for analysis the communication data of those students who involved in the most elaborate communicative exchanges with their CP partners. Due to difficulty in obtaining permission to analyze data from students representing other countries, it was decided that only Polish (CSC and UJ) students' communicative turns would be scrutinized. Consequently, the purposive sample comprised a total of nine students (N = 9) in their mid-twenties, including five undergraduate students ($N_{CSC} = 5$) on a translation programme at CSC, all females, and four graduate students ($N_{UJ} = 4$) on a European Master's in Translation (EMT) programme at UJ, one male and three females, who participated in the GPE GU XVI project.

The students' written posts on the GPE Connect purpose-created forum were copied and saved in.DOCX files (MS Word). To anonymize the data, student names were replaced with codes, which only indicated which academic institution they were from, e.g. CSCS1 (Student 1 from CSC), or UJS2 (Student 2 from UJ). The files were named to reflect the exchanges that they documented, e.g. CSCS1_FSMS1, which indicated that the file in question was a record of a written conversation between Student from CSC and Student 1 from FSM. Subsequently, all the files for exchanges within specific CP teams (pods) were merged, with the beginning and end of each forum discussion session clearly indicated for clarity. Ultimately, a total of 16.DOCX files constituted the research corpus, which was subjected to analysis, as described below.

### 3.4 Research method and procedure

The research in question fulfils Cohen, Manion, and Morrison's (2017) definition of *action research* with a quasi-experimental design, complete with a pre- and post-test, which was conducted by two researchers, one from CSC and the other from UJ, to examine the impact of guidance on individual actions in an IVE on

the nature of students' communicative interactions within the product-oriented Collaborative Project.

The research had two major phases: Phase I, which was concluded with a pre-test aimed at exploring the nature of students' communication in the CP with regard to collaboration and Phase II, which ended with a post-test aiming at measuring the impact of treatment on the student's performance.

In Phase I, when the research questions were formulated, a corpus of students' communicative exchanges in the CP was created and fed into the software for qualitative data analysis QDA Miner, where all the communicative turns of CSC and UJ students were coded for types of individual interactive actions which they involved, as categorized by Chiu (2000). To facilitate the process, the researchers jointly created a coder's manual and pilot-coded samples of students' interactions to evaluate the tool in action. The coding was performed independently by each researcher and the resulting code sets were compared for alignment. Subsequently, QDA Miner was used to compute inter-coder agreement, which turned out to be high, as indicated by the values of two indices Krippendorff's alpha ($\alpha > 0.800$) and Scott's Pi ($\pi > 0.800$) for both the presence of specific codes in particular cases and the overlap of specific codes in particular segments of text (see Krippendorff 2004). Afterwards, the QDA Miner data quantification tools were used to produce code and word frequencies in order to establish the frequency of occurrence for particular individual interactive actions and words used by the students in their project exchanges with colleagues from the first partner institutions (CSC-ECU and UJ-UT). The former was indicative of the predominant nature of student-student written interactions, while the latter was helpful in establishing the themes which prevailed in the aforementioned exchanges.

Phase I was followed by a session of remedial treatment which was held at each of the Polish institutions to draw the students' attention to the nature of their CP communicative interactions with regard to collaboration. The session aimed at awareness raising and involved the explicit introduction of the students to Chiu's (2000) typology of individual interactive actions leading to productive (collaborative) or unproductive (collaboration-limiting) social interactions, as illustrated by samples of their own project interactions, with particular attention to the former. What followed were coding activities in which the students coded excerpts of their own text-based communicative exchanges from Phase I for types of individual actions which they were supposed to identify to ensure retainment and test recall.

Phase II of the research mirrored the qualitative (coding) and quantitative (computation of code and word frequencies) analysis of records of the students' communicative exchanges with colleagues from the second partner institutions (CSC-FSM and UJ-MUBS). What followed was a comparative analysis of the data obtained in Phase I and Phase II which aimed to examine the effect of the aforementioned treatment on the nature of students' collaboration with CP partners.

### 3.5 Results and discussion

The results obtained from the Krosno student cohort revealed that in Phase I, i.e. the pre-treatment Collaborative Project completed by Polish and American student

partners, students' interaction was dominated by three types of interactive actions: supportive contributions (+C), which constituted 34% of all the interactive actions, and unresponsive contributions, which were realized through questions (0C?) (25%) and statements (0C_.) (16). Actions with a considerably lower frequency of occurrence were supportive null statements (+N) (7%), supportive contribution commands (+C!) (6%), unresponsive null statements (0N_.) (4%), unresponsive null questions (0N?) (2%) and critical contribution statements (–C_.) (2%). The remainder of individual actions, with the frequency of occurrence equal to or below 1%, fell into the following categories: supportive repetition questions (+R?) (1%), supportive repetition statements (+R_.) (1%), supportive null questions (+N?) (1%), unresponsive null commands (0N!) (1%), critical contribution questions (–C?) (0.5%) and supportive contribution questions (+C?) (0.5%).

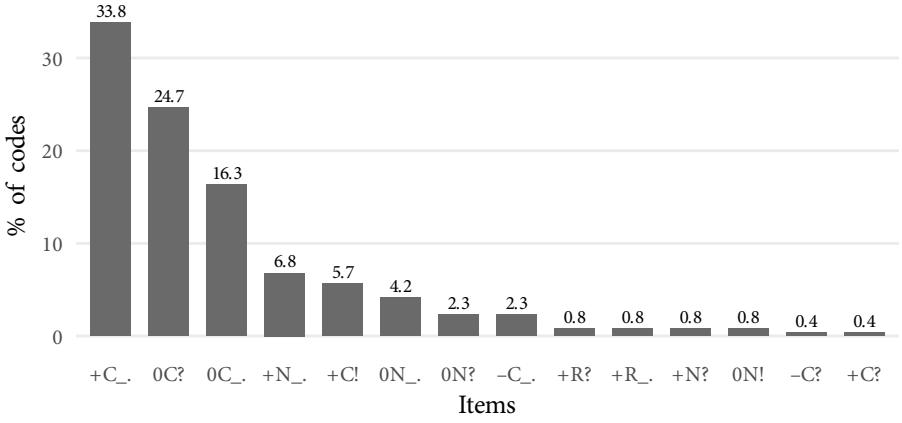


Figure 1. Krosno cohort: distribution of codes for individual actions in Phase I

The data indicate that although the students apparently aimed to contribute to the project discussion, they did so predominantly by taking communicative turns which did not respond to their colleagues' preceding individual actions (41% of the actions taken). Only a third of the actions were responsive in nature (34%), which means that the project participants primarily ignored their colleagues' actions and offered theirs, as if ignoring the propositions made by their co-communicators. While contributions to the discussion were being made, they each constituted new ideas, unrelated to the ideas of others, which reveals little collaboration and inclination towards individual work, while supportive and critical contributions were in a clear minority.

In Phase II, which consisted in Polish and Turkish students completing the post-treatment Collaborative Project, the students' interaction was also dominated by contributions. The majority was constituted by supportive contribution statements (+C_.) (39%). Nearly 50% of actions less were classified as unresponsive contribution questions (0C?) (21%), while 16% of the actions were supportive null statements (+N_.) (16%), and unresponsive contribution statements (0C_.) (11%). The other individual interactive actions which the students took were in a definitive minority, with the

following frequency of occurrence: critical contribution statements (–C_.) (3%), supportive contribution commands (+C!) (3%), supportive repetition statements (+R_.) (1%), unresponsive null questions (0N?) (1%), unresponsive null statements (0N_.) (1%), supportive null questions (+N?) (1%), supportive contribution questions (+C?) (1%) supportive repetition questions (+R?) (0.4%), critical contribution questions (–C?) (0.4%), critical repetition statements (–R_.) (0.4%) and critical null commands (–N!) (0.4%).

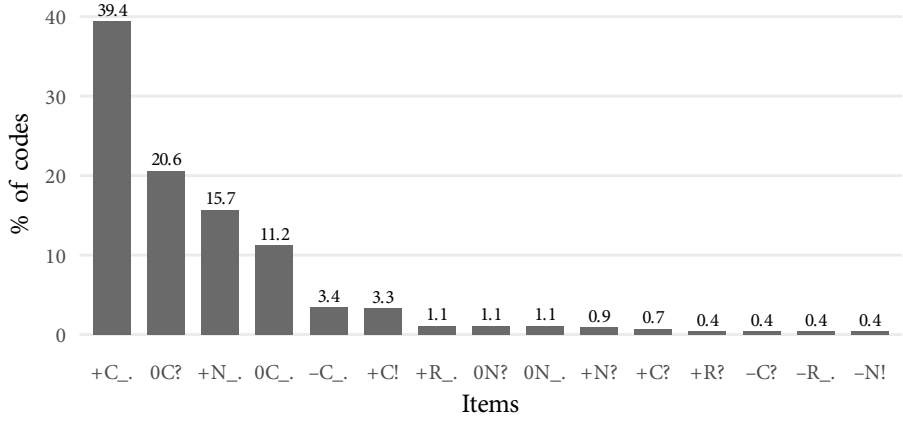


Figure 2. Krosno cohort: distribution of codes for interactive actions in Phase II

The data seem to evidence a change in students' performance. In contrast to Phase I, a majority of the students' individual actions in Phase II were supportive in nature (55%), 39% of which were supportive contribution statements (+C_.) and 16% were supportive null statements (+N_.). At the same time, a decrease in the use of unresponsive actions was observed, as the latter amounted to 32% of all actions, with 21% of unresponsive contribution questions (0C?) and 11% of unresponsive contribution statements (0C_.). The frequency with which the students used the remaining actions was significantly lower, although what merits notice is that among those collaboration-oriented actions prevailed, with critical contribution statements (–C_.) and supportive contribution commands (+C!) used at the frequency of 3% each.

The results collected from the Kraków student cohort revealed that in the pretreatment Collaborative Project, which was completed by Polish and French students, interaction was dominated by four individual actions: supportive contribution statements (+C_.) (46%), supportive null statements (+N_.) (17%), unresponsive contribution questions (0C?) (12%) and unresponsive contribution statements (0C_.) (9%). A clear majority (70%) of individual actions in the communication performed by these students in Phase I were supportive, while only a fifth (20%) were unresponsive actions.

The other individual actions were performed with significantly lower frequencies, accounted for only 10% of the communication and comprised: supportive contribution questions (+C?) (2%), critical contribution statements (–C_.) (2%), supportive repetition questions (+R?) (1%), unresponsive null statements (0N_.) (1%), critical null statements (–N_.) (1%), unresponsive null questions (0N?) (1%), supportive

contribution commands (0.6%), supportive repetition statements (+R_.) (0.6%), critical contribution questions (–C?) (0.3%) and supportive null statements (+N!) (0.3%).

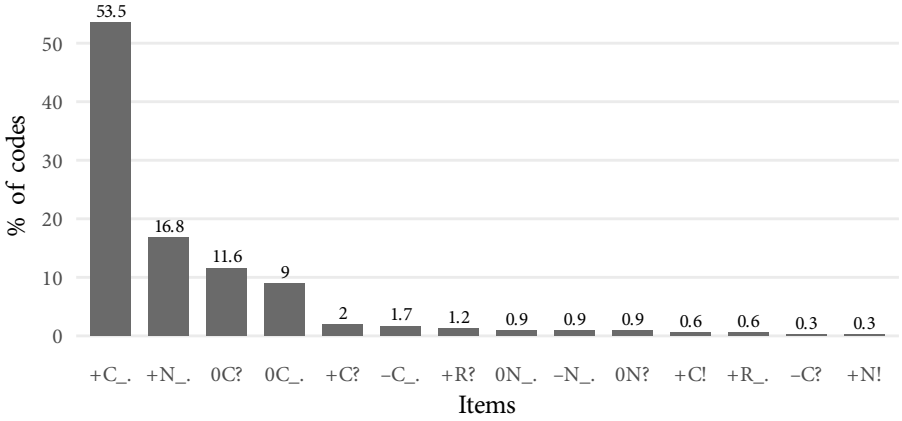


Figure 3. Kraków cohort: distribution of codes for individual actions in Phase I

In Phase II, in the performance of the Kraków cohort, which involved communication with Lebanese partners, supportive contribution statements (+C_.) (46%) prevailed, followed by unresponsive contribution statements (0C_.) (17%), unresponsive contribution questions (0C?) (12%) and supportive null statements (+N_.) (10%).

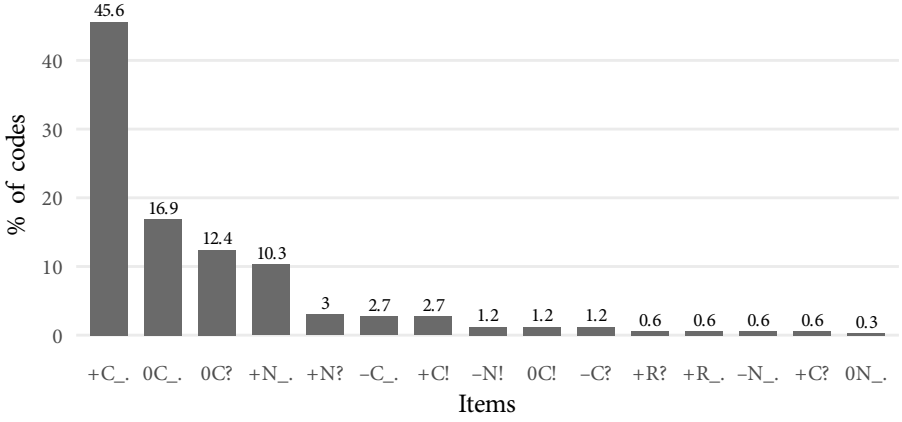


Figure 4. Kraków cohort: distribution of codes for individual actions in Phase II

What it reveals is that 56% of the individual actions picked up on what the preceding communication moves of the project partners, while less than a third (29%) were unrelated and thus, did not imply collaboration. The data indicate that in the Kraków cohort the frequency of collaboration-enhancing, supportive actions was higher than that of unresponsive, collaboration-impeding actions in both Phase I; however, the proportions of the former did not increase in relation to the latter from Phase I (70% to 20%) to Phase II (56% to 29%). In Phase I, unresponsive actions constituted less than a third of supportive actions, while in Phase II, they amounted to slightly a half.

The remaining actions used in Phase I (15% in total) included supportive null questions (+N?) (3%), critical contribution statements (3%), supportive contribution commands (+C!) (3%), critical null statements (–N_.) (1%), critical null statements (–N_.) (1%), unresponsive contribution commands (0C!) (1%), critical contribution questions (–C?) (1%), supportive repetition statements (+R_.) (0.6%), critical null statements (–N_.) (0.6%), supportive contribution questions (+C?) (0.6%), and unresponsive null statements (0N_.) (0.3%).

Overall, in the Krosno cohort the students took 51 individual actions indicative of collaboration were identified in the students' communication in Phase I, which amounted to 51% of all individual actions taken. In Phase II, the number of such actions totalled 64 and constituted 62% of all individual actions, which reveals an overall increase of 11%. In the Kraków cohort, the project participants used 74 individual actions which implied collaboration in Phase I, which amounted to 74% of all individual actions taken, while in Phase II, the number of such actions equalled 69, which was 68% of all individual actions taken. Thus, a 5% decrease was observable.

As the word frequencies – which were computed by means of the QDA Miner and categorized by content areas – reveal, the discussions in the Krosno cohort were dominated by themes such as project work (71 instances of occurrence in Phase I / 65 instances in Phase II), need to establish rapport with project partners (61/10), final product (54/35), actions to be taken (51/21), resources to be used (38/9), choice of topic (30/43) and tools to be utilized (17/9), although it is noticeable that the frequencies diminished in Phase II.

Interestingly, two themes (partner country and the need to consult the course instructor) were discussed quite intensely in Phase I (46 and 8 instances, respectively), but they were absent from discussions in Phase II. Last but not least, the collaborative nature of the project work was absent from discussions in Phase I, but it surfaced in discussions held in Phase II (18 instances).

In the Kraków cohort the prevalent themes in online discussions were project work (62/90), topic choice (26/104) and actions to be taken (14/43), which visibly increased in the frequency of occurrence in Phase II, as well as the need for rapport (36/33) and product choice (34/29), which occurred with only slightly lower frequency in both phases.

In parallel to the observations made within the Krosno cohort, the need to consult the course instructor (8/0) was discussed by the Kraków students only in Phase I, so was the need to complete the project work via collaboration (8/0).

It also turned out that in Phase II students from both cohorts seemed to display a strong preference for selecting the least labour-intensive project solutions, as a result of which they tended to work on the same topic and generate the same product as before, i.e. in Phase I; hence, the lower frequencies in Phase II for themes such as the choice of tools and final products, as well as the need to consult the course instructor.

In conclusion, it may be posited that the students did not deviate from discussing the subject matter, i.e. the collaborative project at hand. However, they seem to have approached the task differently with time. While rapport-building seemed

important in Phase I, its significance decreased in successive projects (Phase II) at both institutions, which might be ascribed to a possible wear-off effect. Interestingly, the course instructor appeared most instrumental in Phase I, when the students were new to the experience, while the need for his/her advice seemed to disappear in Phase II, when the students had already learnt how to proceed with the project work. The decrease in explicit mentions of the need for collaboration might be considered a parallel case. However, in the Kraków cohort it turned out to reflect students' disillusionment with a low level of responsiveness on the part of their foreign partners and the resulting discouragement, which was reported in personal communication with the instructor.

### 3.6 Conclusions and implications for IVE design

As the research results reveal, on a positive note it may be stated that in both cohorts the students' online, text-based discussions involved mostly supportive contributions, where the students elaborated on the preceding communication moves made by their partners through additions, their own proposals, or implementation commands. In contrast, unresponsive null actions and unresponsive repetitions, which are rather counter-collaborative in nature, were very rare.

On a more negative note, a substantial proportion of the students' individual actions were unresponsive contributions, whereby the students abruptly introduced completely new discussion topics, or they made new proposals or implementation requests without any relation to the project partners' preceding communication moves.

In addition, the students rarely used the project communication as an opportunity to involve in deeper-level negotiations, where they would critique their colleagues' ideas, introduce counter-proposals, issue counter-orders, e.g. to suggest a different course of action, make critical repetitions, repeat their partners' moves to challenge them, express denials or halt conversational turns to have their own say.

As for the impact of explicit instruction on – and practice in – the typology of individual interactive actions with potentially collaboration-facilitating or collaboration-limiting effects, which the students received between the consecutive virtual exchanges in which they participated in Phase I and Phase II, the results are moderately conclusive.

In the Krosno cohort the instruction seems to have been effective, as a rise of 11% was detected in the use of collaboration-facilitating actions in the students' performance from Phase I to Phase II. At the same time, the increase mostly materialized through the implementation of supportive null statements (+N_.), which endorsed co-communicators actions but did not contribute to the subject-matter discussion.

By contrast, in the Kraków cohort, where a decrease of 5% in the students' use of collaboration-facilitating actions was recorded, the instruction did not translate into the increased use of individual actions for social interaction. However, a comparative analysis of the performance of students from the latter cohort in both project phases revealed a rise from 5 to 11 in the repertoire of collaboration-facilitating actions which students used in Phase I and Phase II. Juxtaposed with the realization that

the observed decrease in the number of collaboration-facilitating individual actions was relatively little and as such it might be deemed negligible, the outcome need not be perceived negatively. Overall, one might conclude that instructing IVE students on types of individual actions and their possible impact on social interactions may potentially increase students' use of pro-social individual actions, or it may at least persuade them to use a wider repertoire of the actions they implement to facilitate collaboration. As a result, they are more likely to diversify their pro-collaboration individual actions in future team performance.

What the findings seem to imply is that it is advisable to instruct students on individual interactive actions and the possible impact those actions can have on social interaction, which could result in students approaching project communication with increased awareness and thus, increase the efficacy of their communicative performance to promote genuine collaboration. That could be done via introductory videos providing examples of good and bad communication practices, as well as practical activities.

It also seems desirable to encourage students to identify and report examples of pro-collaboration actions, as well as (self-)assess the potential of observed individual actions for facilitating social interaction.

To avoid the possible wear-off effects of task routinization, it is appropriate to modify project design so that exchanges with consecutive partners are spaced out, thus allowing students to approach each exchange with a fresh mind. Moreover, each exchange needs to involve different assignments, so that students do not implement the same resources and solutions while working on them, thus having to deal with new challenges each time.

Finally, student's project communication needs monitoring to ensure that collaboration, rather than mere cooperation, is the dominant work mode and that they approach the project tasks anew, thus needing to truly collaborate.

## Acknowledgements

The research reported on in this paper was supported by finding through an integral grant awarded as part of the Initiative of Excellence scheme run by Jagiellonian University in Kraków, Poland. Competition ID: WFilolog.1.5.2022.

## References

Chiu M.M. 2000. Group problem-solving processes: Social interactions and individual actions. – *Journal for the Theory of Social Behaviour* 30.1: 26–49.

Cohen L., Manion L., Morrison K. 2017. *Research methods in education*. [8th ed.]. London: Routledge.

Cunnigham D.J., Vyatkina N. 2012. Telecollaboration for professional purposes: Towards developing a formal register in the foreign language classroom. – *The Canadian Modern Language Review* 68.4: 422–450.

Cunnigham D.J. 2016. Request modification in synchronous computer-mediated communication: The role of focused instruction. – *The Modern Language Journal* 100.2: 484–507.

Dooly M. 2008. *Telecollaborative language learning: A guidebook to moderating intercultural collaboration online.* New York, Bern: Peter Lang.

Ehrensberger-Dow M., Massey, M. 2022. The changing (inter)face of professional translation. [available at: https://doi.org/10.1515/les-2019-0005, accessed: 21 August 2023].

EVALUATE Group. 2019. Evaluating the impact of virtual exchange on initial teacher education: A European policy experiment. Research-publishing.net. [available online at: https://research-publishing.net/publication/978–2-490057–33–7.pdf, accessed: 5 July 2024].

EVOLVE Project Team. 2020. The impact of virtual exchange on student learning in higher education: EVOLVE project report. [available online at: http://hdl.handle.net/11370/d69d9923–8a9c-4b37–91c6–326ebbd14f17, accessed: 15 July 2024].

GPE. 2022a. About GPE. [available online at: https://www.thegpe.org/about-gpe/, accessed: 21 September 2024].

GPE. 2022b. Global Understanding (GU) survey results: Assessment report for spring 2021 and fall 2021. [available online at: https://thegpe.org/wp-content/uploads/2022/05/GPE-15-assessment-report.pdf, accessed: 5 October 2024].

GPE. 2023. Global Understanding (GU) survey results: Assessment report for spring 2022 and fall 2022. [available online at: https://thegpe.org/wp-content/uploads/2023/05/GPE-15-assessment-report.pdf, accessed: 12 October 2024].

GPE. 2024. Global Understanding (GU) survey results: Assessment report for spring 2023 and fall 2023. [available online at: https://thegpe.org/wp-content/uploads/2024/05/GPE-15-assessment-report.pdf, accessed: 9 October 2024].

Guidry A., Leibowitz J., Adeyemi-Bello T. 2020. Global BEEHIVE: Developing good practice for multilateral, scalable, and sustainable virtual exchange. – *Journal of Virtual Exchange* 3 (SI-IVEC2019): 13–26.

Guth S., Helm F. 2010. Introduction. – Guth S., Helm F. (eds.). *Telecollaboration 2.0: Language, literacies and intercultural learning in the 21st century.* Bern: Peter Lang: 13–23.

Guth S., Helm F. 2017. SUNY COIL Stevens initiative assessment: FINAL REPORT. [available online at: https://www.researchgate.net/publication/324113574_SUNY_COIL_Stevens_Initiative_Assessment_FINAL_REPORT, accessed: 10 October 2023].

Halliday M.A.K., Hasan R. 1993. *Cohesion in English.* [= 12. impr.: *@English language series* 9]. London: Longman.

Helm F. 2016. Facilitated dialogue in online intercultural exchange. – Lewis T., O'Dowd R. (eds.). *Online intercultural exchange: Policy, pedagogy, practice.* London, New York: Routledge: 150–172.

Helm F., van der Velden B. 2020. Erasmus + virtual exchange impact report 2019. [available online at: https://op.europa.eu/en/publication-detail/-/publication/0ee233d5-cbc6-11ea-adf7-01aa75ed71a1/language-en/format-PDF/source-181006410, accessed: 29 July 2024].

Jager S., Kurek M., O'Rourke B. (eds.). 2016. *New directions in telecollaborative research and practice: Selected papers from the second conference on telecollaboration in higher education.* Dublin: Research-publishing.net. [available at: https://doi.org/10.14705/rpnet.2016.telecollab2016.486, accessed: 14 August 2023].

Jager S., Nissen E., Helm F., Baroni A., Rousset I. 2019. Virtual exchange as innovative practice across Europe: Awareness and use in higher education: EVOLVE project baseline study. [available online at: https://evolve-erasmus.eu/wp-content/uploads/2019/03/Baseline-study-report-Final_Published_Incl_Survey.pdf, accessed: 17 August 2024].

Kiraly D.C. 2000. *A social constructivist approach to translator education: Empowerment from theory to practice*. Manchester: St. Jerome.

Kiraly D.C. 2016. Authentic project work and pedagogical epistemologies: A question of competing or complementary worldviews? – Kiraly D.C. (ed.). *Towards authentic experiential learning in translator education*. Göttingen: V&R Unipress; Mainz University Press: 53-65.

Krajka J., Marczak M. 2017. Telecollaboration projects in translator education – Design, implementation and evaluation. – Smyrnova-Trybulska E. (ed.). *Effective development of teachers' skills in the area of ICT and e-learning.* Cieszyn: University of Silesia and Noa: 365–388.

Kramsch C. 2014. Teaching foreign languages in an era of globalization: Introduction. – *Modern Language Journal* 98: 296–311.

Krippendorff K. 2004. *Content analysis: An introduction to its methodology.* [2nd ed.]. Thousand Oaks Calif.: Sage.

Lewis T., O'Dowd R. 2016. Online intercultural exchange and foreign language learning: A systematic review. – Lewis T., O'Dowd R. (eds.). *Online intercultural exchange: Policy, pedagogy, practice.* London, New York: Routledge: 21–65.

Marczak M. 2019. Successful E-learning: Intercultural development in GPE's Global understanding project. – Smyrnova-Trybulska E. (ed.). *E-learning and STEM education.* Katowice-Cieszyn: Studio Noa for University of Silesia: 233–254.

Marczak M. 2024. *Telecollaboration in translator education: Implementing telecollaborative learning modes in translation courses*. London, New York: Routledge.

Mastela O. 2022. Zaangażowana dydaktyka akademicka i jej wpływ na jakość kształcenia tłumaczy. – Bugaj J., Budzanowska-Drzewiecka M. (eds.). *Jakość kształcenia akademickiego*. [2nd ed.]. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego: 182–198.

Müller-Hartmann A., O'Dowd R. 2017. A training manual on telecollaboration for teacher trainers. [available online at: https://www.unicollaboration.org/wp-content/uploads/2020/08/Training-Manual_Final_EVALUATE.pdf, accessed: 23 August 2024].

Nissen E. 2016. Combining classroom-based learning and online intercultural exchange in blended learning courses. – Lewis T., O'Dowd R. *Online intercultural exchange: Policy, pedagogy, practice.* London, New York: Routledge: 173–191.

O'Dowd R., Dooly M. 2020. Intercultural communicative competence development through telecollaboration and virtual exchange. – Jackson J. (ed.). *The Routledge handbook of language and intercultural communication*. Abingdon: Routledge: 361–375.

O'Dowd R. 2020. A transnational model of virtual exchange for global citizenship education. – *Language Teaching* 53.4: 477–490.

O'Dowd R., Sauro S., Spector-Cohen E. 2020. The role of pedagogical mentoring in virtual exchange. – *TESOL Quarterly* 54.1: 146–172.

Pietrzak P., Kornacki M. 2021. *Using CAT Tools in Freelance Translation Insights from a Case Study*. London, New York: Routledge.

Risku H. 2018. Situated learning in translation research training: Academic research as a reflection of practice. – Gonzalez-Davies M., Enríquez Raído, V. (eds.). *Situated Learning in Translator and Interpreter Training*. London: Routledge: 1–11.

Rodríguez de Céspedes B. 2018. Translator Education at a Crossroads: The Impact of Automation. – *Lebende Sprachen* 64.1: 103–121. [available at: https://doi.org/10.1515/les-2019-0005, accessed: 22 August 2023].

Sharing Perspectives Foundation. 2018. Taking learning, dialogue and connections online. [available online at: https://sharingperspectivesfoundation.com/, accessed: 25 October 2024].

Sharma P. 2017. Blended learning design and practice. – Carrier M., Damerow R.M., Bailey K.M. (eds.). *Digital language learning and teaching*. London, New York: Routledge: 167–178.
Smyrnova-Trybulska E. (ed.). 2019. *E-learning and STEM education*. [= *E-learning* 11]. Katowice–Cieszyn: Studio Noa for University of Silesia.
Soliya. (n.d.). Connect program. [available online at: https://soliya.net/connect-program].
Stevens Initiative. 2020. Virtual exchange impact and learning report 2020. [available online at: https://www.stevensinitiative.org/resource/virtual-exchange-impact-and-learning-report-2/, accessed: 12 March 2023].
Turula A. 2024. *Cyfrowy nauczyciel języka angielskiego: o kształceniu przyszłych nauczycieli do mądrego używania technologii informacyjno-komunikacyjnych*. Kraków: Wydawnictwo Naukowe UKEN.
United Nations. 2015. Transforming our world: The 2030 agenda for sustainable development. [available online at: https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981, accessed: 6 May 2023].
van Egdom G.-W., Konttinen K., Vandepitte S., Fernández-Parra M., Loock R., Bindels J. 2020. Empowering translators through entrepreneurship in simulated translation bureaus. – *HERMES – Journal of Language and Communication in Business* 60: 81–95.