11 Virtual exchange: from students' expectations to perceived outcomes

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Abstract

What do students expect before starting a Virtual Exchange (VE) with peers? Are their initial expectations mirrored in the final outcomes they perceive after the VE experience? Or, else, do students acknowledge benefits and acquired skills which they did not expect at first? This study draws on qualitative and quantitative data collected across a variety of VE settings within the Erasmus+ EVOLVE project (16 VEs and 248 students in total). In a mixed-methods approach, it confronts students' expectations and perceived outcomes in order to outline the learning potential of VE, beyond the specific learning objectives set in the different Higher Educational (HE) courses in which a VE was implemented. It brings to light that the overlap between students' expectations and the benefits they see is only partial. The declared outcomes deviate more from the course learning objectives than the initial expectations do, and they are, unsurprisingly, more nuanced and manifold. Expectations of intercultural and language practice and skills development are more often aligned with outcomes voiced by students than is the case for digital and disciplinary skills. What stands out is a great occurrence of transferable skills in the outcomes, including collaborative,

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relational, and communicative skills that are not always promoted in the course objectives.

Keywords: virtual exchange, learning outcomes, student expectations, course objectives.

1.   Background to the research

Since telecollaborative projects and partnerships between geographically distant groups began to penetrate teaching practices almost three decades ago, VE – in its different declinations (O'Dowd, 2018) – has expanded in HE, being implemented in different settings, across a wide range of disciplines and with various pedagogical aims (Helm, 2015; O'Dowd & Lewis, 2016). Research in this field supports the constantly growing set-up of VE in HE courses and contributes to highlighting its impact on the development of students' competences. However, results stem most often from case studies, and if they attest to the diversity and richness of practices, they still have a strong context-specific scope, and cannot inform about generalizable benefits inherent to the VE itself.

The goal of the Erasmus+ EVOLVE project (EVOLVE website[4]; Jager et al., 2019) is to fill this gap by exploring large-scale data in order to identify common trends across a wide range of VEs, and to provide a broader picture of the learning potential of VE. Among the different investigations conducted within the EVOLVE project, the study presented in this paper focuses on the comparison between students' initial expectations at the outset of the VE, and the outcomes and gains stated after completion. The aim is to go beyond the measure of students' satisfaction, and to broaden the results of isolated case studies (e.g. Gimeno, 2018; Marczak, 2016).

4. https://evolve-erasmus.eu

2.   Methodology for data collection and analysis

2.1.   Data collection

The data retrieved within EVOLVE stems from 16 VEs with various settings, which took place between September 2019 and May 2020, involving 24 HE institutions worldwide. The diversity of the VE settings is due to languages used, partners or disciplines involved, duration, and targeted outcomes (for a more detailed VE description, see EVOLVE Project Team, 2020).

For this paper, the measure of objective attainment through a five-point Likert scale constituted the starting point for our analyzes. In order to gain deeper insight into these quantitative results, students' answers to specific open-ended questions in administered pre-and post-surveys (N=248) were analyzed in a comprehensive approach; follow-up interviews (N=19) provided additional information for the qualitative analysis. Figure 1 indicates the specific questions for the collection of data investigated in this paper: two post-survey questions with Likert scales for quantitative data collection, and four open-ended questions at pre- and post-stages (post-survey and interview).

Figure 1. Methods for data collection and specific questions investigated in this paper
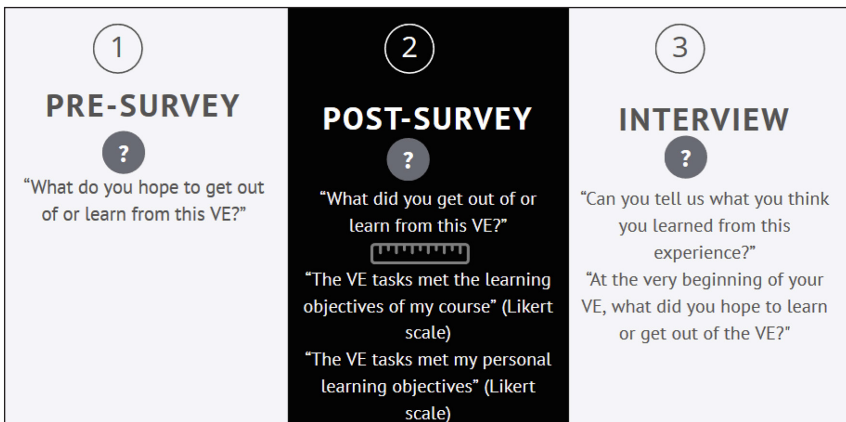
2.2.   Processing of the data: establishing coding categories and identifying patterns

This mixed-methods design for the research (Figure 1) allows for elaboration on quantitative results (Brown & Coombe, 2015, p. 81). The data generated from open-ended questions in the surveys and interview were analyzed using the software Nvivo 12 Pro and by adopting an inductive bottom-up approach for identifying and defining coding categories for students' expectations and outcomes (Zhang & Wildemuth, 2009). In order to allow for comparison, the categories established for coding expectations were – as far as possible – aligned with categories for outcomes.

Across the 16 VEs, 12 categories were established for coding expectations as well as outcomes. These include disciplinary, intercultural, language, and digital competences, which are frequently examined VE objectives in the field's literature (O'Dowd & Lewis, 2016) and targeted in HE courses. Along with these, students report on several transferable skills, on the opportunity to make a new experience, or to communicate (in the L2 or more generally), to collaborate with their peers, and to build interpersonal relationships. Adaptability occurred among the reported outcomes as an additional skill that students had not expected.

Figure 2.   Identified patterns for comparison between declared expectations and outcomes

	Pattern	Pattern description
1.	Initial expectations are fulfilled	Student's indications of VE outcomes match those of their initial expectations
2.	Initial expectations are partially met	Several VE outcomes a student indicates match the expectations he/she initially expressed
3.	Initial expectations are totally unmet	None of the VE outcomes a student indicates matches the expectations he/she initially expressed
4.	Unforeseen benefits	Students indicate outcomes that they did not mention among their expectations

Patterns based on preliminary pilot study

Through a preliminary study, four main patterns emerged when confronting students' expressed expectations and outcomes.

The first three identified patterns (Figure 2) relate to various degrees of correspondence between students' initially declared expectations from the VE experience, and what they finally state having learned or got out of it. The fourth pattern relates to unexpected outcomes. An additional investigation aimed at determining to what extent students' expectations and outcomes were in line with the objectives set for the different courses the VE was integrated in.

3.   Results and discussion

3.1.   Perception of learning

Students' level of agreement collected through the Likert scale questions indicate an overall positive to very positive assessment regarding the achievement of learning objectives through the VE, be it the courses' learning objectives or their own (Figure 3 and Figure 4).

Figure 3.   Perceived learning outcomes regarding the course objectives (five-point Likert scale)
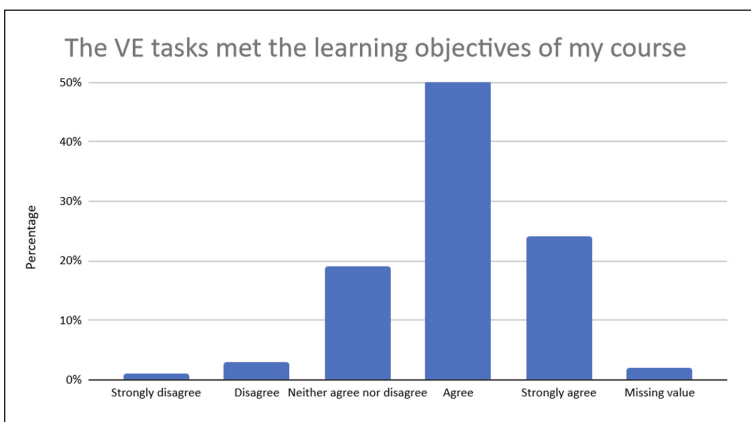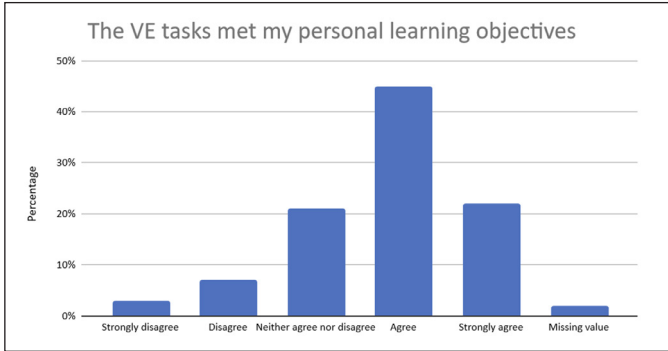
Figure 4. Perceived learning outcomes regarding the personal objectives

The coding of open-ended questions enabled us to describe more precisely the declared expectations and their alignment with the perceived outcomes – both related or not to the courses' targeted objectives – by assigning categories to students' responses (see 2.2). If the most reported expectation before starting the VE concerns cultural or intercultural aspects, a shift can be observed in the ranking when students report on outcomes once the VE has ended: cultural and intercultural aspects are cited much more frequently, and students value collaborative teamwork as an important skill VE helped develop.

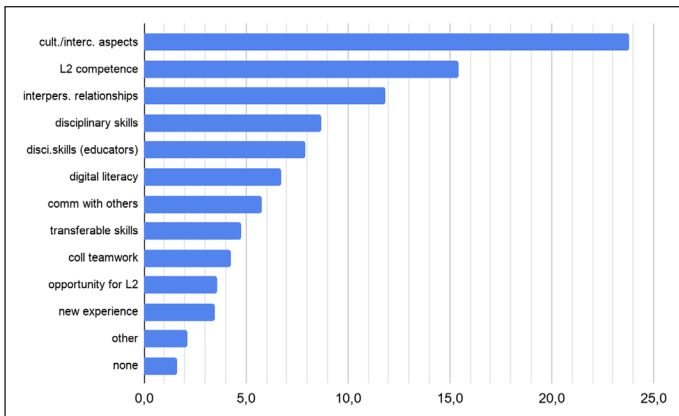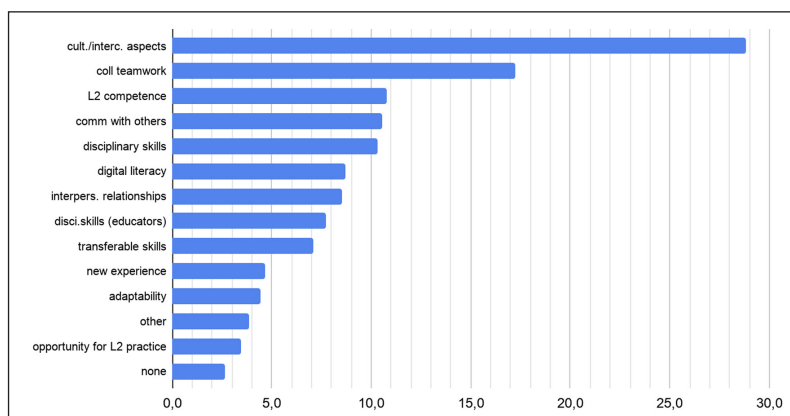Figure 5. Ranking of mentioned expectations (in percentages)

Figure 6.   Ranking of declared outcomes (in percentages)

After collaborative teamworking skills, it is communication with others – and not exclusively the development of L2 competence – which also appears as a major outcome. This shows the role the communicative experience plays during the exchanges, not only for the achievement of the VE tasks, but also for establishing interpersonal relationships.

Differences between Figure 5 and Figure 6 indicate that the perceived VE outcomes exceed the initially stated expectations. The students quote many more aspects than they initially expected, and for most of the categories the percentage of mentions is higher.

After comparing expectations mentioned by the students to their declared outcomes, three main tendencies stand out, which refer to three of the pre-identified patterns (see Figure 2):

- all evoked expectations were fulfilled for 29% of the participants, who did not mention having gained other unexpected benefits from their VE participation (Pattern 1);

- for 31 % of the students, no initial expectations were fulfilled (Pattern 3);

- for 39% of the participants, some of the initially reported expectations appear in the outcomes (Pattern 2). Such an alignment concerns two categories: cultural and intercultural aspects and collaborative teamwork. Both categories are, on the one hand, the most frequently met expectations and on the other hand, the most quoted unforeseen benefits.

The proportion of met and unmet categories in each of these three patterns being globally the same, it is necessary to identify more generally speaking the most frequently met expectations (Figure 7).

Figure 7. Most frequently met expectations (in percentages)
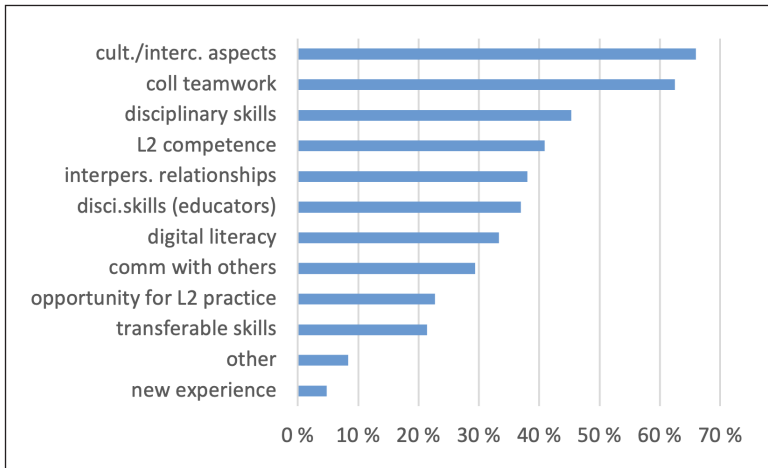
When cultural and intercultural aspects are mentioned in the expectations, in 67% of the cases, they appear in the outcomes as well. The expectation of collaborative teamwork is also satisfied in 63% of the cases. Other expectations are fulfilled in less than 50% of the cases. The results must however be nuanced, as some references which have been coded for specific categories (for instance L2 competence, opportunity for L2 practice, and communication with others) can refer to similar aspects. Slight differences in students' formulations may therefore have led us to attribute their statement of expectation to another category than the expressed outcome.

Figure 8. Unforeseen benefits (number of cases)
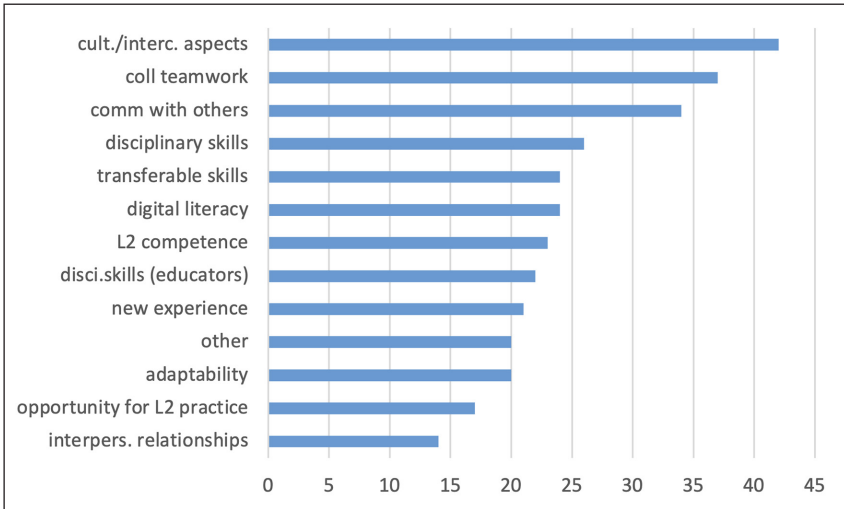
Regarding the fourth pattern – unforeseen outcomes (see Figure 8) – 67% of the students mention gains they did not voice as an expectation before the VE. This highlights the dimension of uncaptured benefits VE might bring to the participants. Interestingly, unexpected outcomes refer again to cultural and intercultural aspects, but concern also collaborative and communicative skills, which are among the most often declared outcomes.

Engagement in VE provides participants with the opportunity to put their knowledge and skills into practice under real conditions of use. Students experienced communication with remote distant partners coming from different geographical areas, which helped them discover other worldviews and reflect on them. They were encouraged to work collaboratively with their peers to achieve the assigned tasks and had to cope with possible issues, developing adaptability, empathy, and social skills. What numerous students particularly valued is the authentic experiential and enjoyable learning provided by the VE, which may have led them to expand their initial expectations. This is illustrated by the following student statement at post-stage.

"I got to improve my level in french and get better with my compositions in french. I got the chance to meet new people, to work with people at distance. We had to work in groups sometimes which helped us improve our teamwork, to learn what other people think and listen to their opinions. I really enjoyed this experience".

3.2. Perceived outcomes that broaden course objectives

It can be assumed that objectives set for the course and disciplinary contents may influence the expectations of the students. Information gathered from the different partner teachers has enabled us to identify which were the targeted learning objectives for each VE, as well as the learning objectives established in each course. For this part of our study, information about the courses run by the two (or three) partners involved in a VE has been compiled. It appeared that in three VEs, students from one partner institution had not completed the pre- and post-survey, so that data for three courses was missing; in five other courses only one or two students completed both the pre- and post-survey, which was decided not sufficient for considering the course. Consequently, the following data was gathered from 26 (out of 34) courses from 15 different VEs and for which responses of at least three students were available.

The learning objectives indicated by teachers referred to language skills, intercultural competence, disciplinary knowledge (especially teaching skills and critical digital literacy), encompassing either one single type of knowledge or skills or a set of competences. As shown in Figure 9, students' expectations at the outset of the VE are not identical to the learning objectives set for the course but tend to align in a majority of cases (58.4 %). For 23 out of 26 courses, students mention all or more than half of the course objectives as expectations. In contrast, the declared outcomes are less in line with the course objectives (24.1%) and other benefits gained through the VE experience are stated. These results seem to indicate that VE entails a greater potential for developing more or other competences and skills than initially expected or planned, be it by students or by educators.

Figure 9. Congruence rate between course objectives and students' declared expectations and outcomes
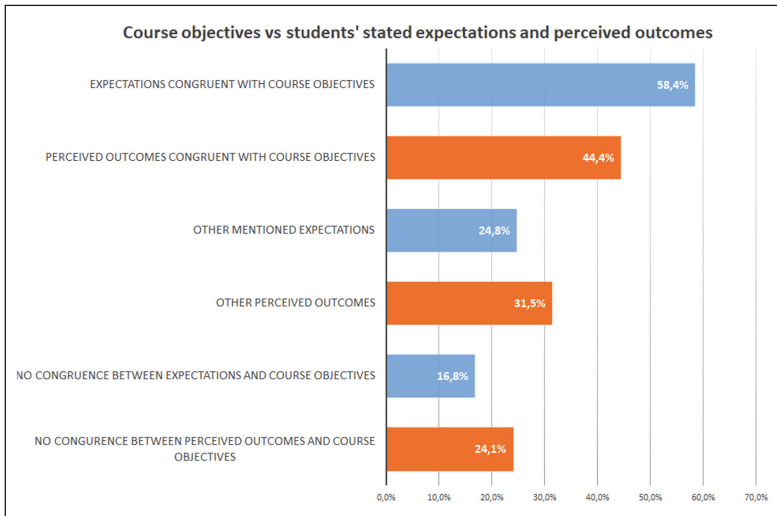

Figure 10. Proportion of students' expectations and perceived outcomes congruent with course objectives (digital literacy)
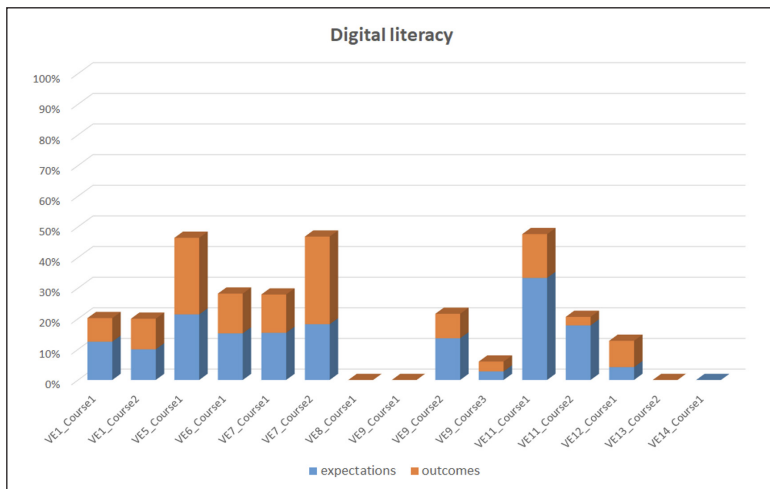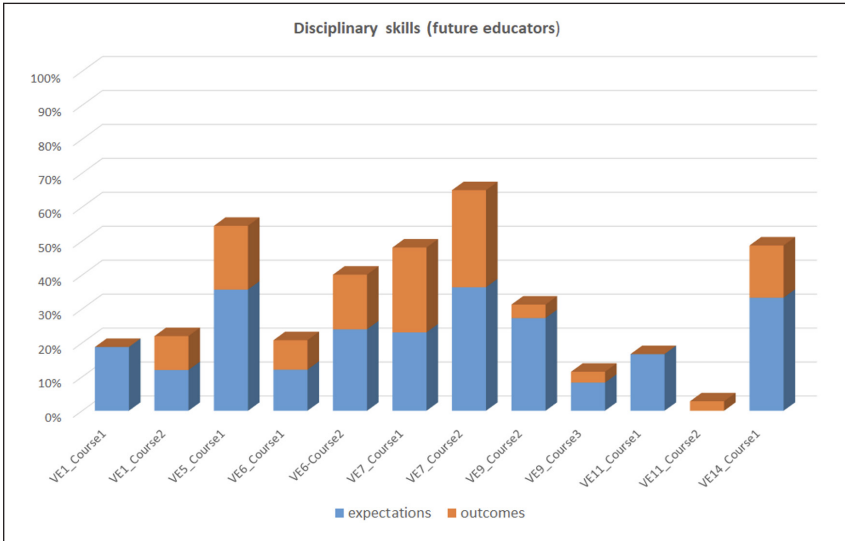
Figure 11. Proportion of students' expectations and perceived outcomes congruent with course objectives (disciplinary skills)


The frequency of coding for the two categories (digital literacy and disciplinary skills related to language teaching and learning) indicated in Figure 10 and Figure 11 confirm differences of overlap in expectations and outcomes. On the one hand, students did not necessarily mention expectations or gains regarding digital literacy and valued other aspects, especially relational or collaborative ones. But on the other hand, improvement in digital skills was among reported outcomes even if this competence was not explicitly targeted as a course objective. In the same vein, if disciplinary skills are not always stressed by the students as the major outcome of their VE, this is due to the fact that they highlighted having gained additional (transversal) skills, such as adaptability, collaborative skills, or intercultural communicative competence, as shown in the following examples.

> "The most valuable thing of [VEs] is that students would not only get profit towards their academic development but mainly towards their personal and individual development".

"I learned about the different communication styles of people, how to collaborate with others who have different communication styles, and how to better respond to others when dealing with conflict".

Figure 12. Proportion of students' expectations and perceived outcomes congruent with course objectives (language skills)
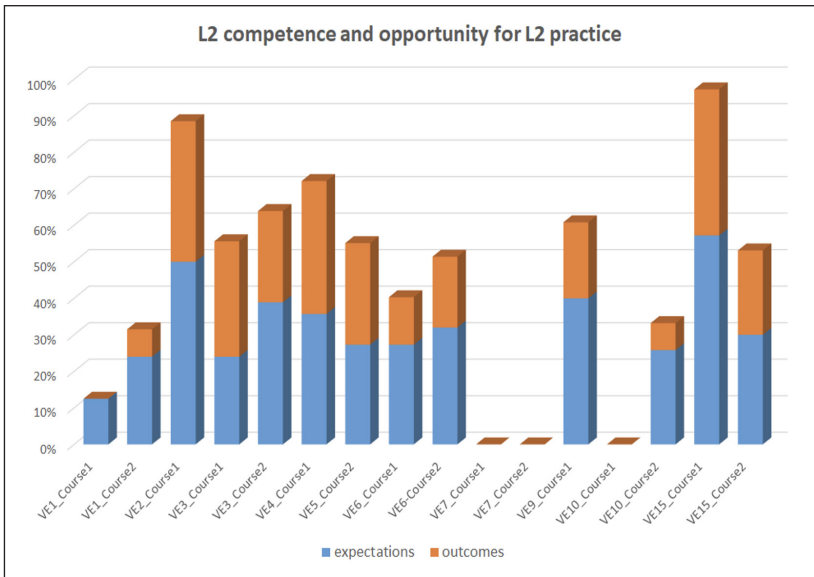
However, a greater alignment can be observed when language and intercultural skills are at play, as VE was in some cases integrated in a language course. Regarding language skills – referring to both categories "L2 competence" and "opportunity of L2 practice" (Figure 12), the high proficiency level of some students may explain why language improvement is not always perceived neither as an expectation nor as an outcome. Consequently, those students considered other targeted outcomes more important or unforeseen benefits much more salient, such as the building of interpersonal relationships, or adaptability. The development of intercultural competence was a learning objective in several courses (Figure 13); only few students in these courses voiced other expectations and if so, they still acknowledged an intercultural benefit among the outcomes

of the VE. The results for these two categories are in line with previous studies, which have demonstrated the impact of VE on the development of language skills and intercultural competence (e.g. Helm & van der Velden, 2020; The EVALUATE group, 2019). Nevertheless, the qualitative analysis of the open-ended questions reveals that students' expectations regarding their learning are often very general or narrow, whereas their description of the perceived outcomes is often much broader and goes beyond the mere objectives of their university course.

Figure 13. Proportion of students' expectations and perceived outcomes congruent with course objectives (intercultural aspects)
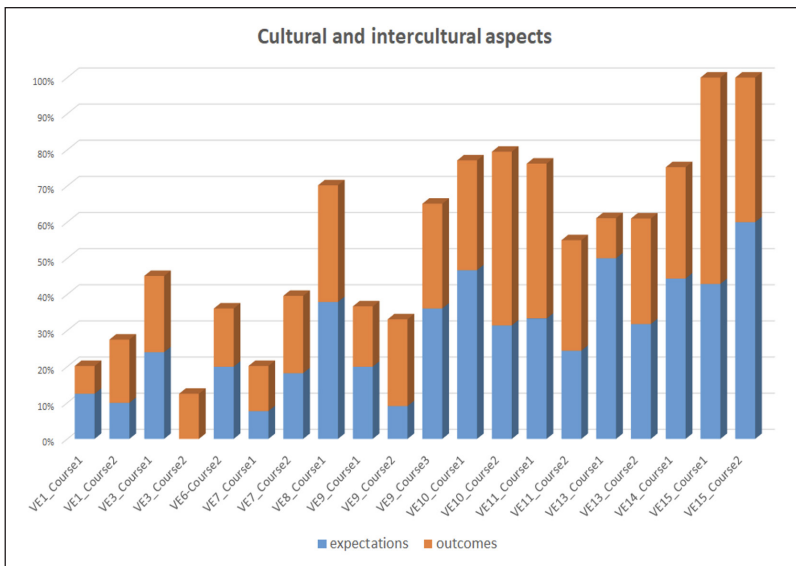
VE offers a unique educational context in which participants are likely not only to enhance but also to challenge their communicative, collaborative, and intercultural skills. In that sense, students may develop transversal skills in addition to the disciplinary contents or the learning objectives set in their HE course and beyond their own learning expectations as well. Nature and depth of personal or academic learning objectives can be modified as a consequence of

the VE experience and students' engagement in VE may therefore contribute to the development of more complex and intertwined competences, as illustrated in the following student post-survey statement.

> "I got an opportunity to use English in a more authentic way by cooperating with people from other countries who also use English as a lingua franca. I learned how difficult it is to include seven people in a project and make everyones voices heard. I learned more about how I function in a group work and how I perceive my country and my culture as well as other countries and cultures" (Nissen, Felce, & Muller, 2020, p. 46).

4.   Conclusion

This study brings to light occurring shifts and changes between what students expect to get out of or learn from international task-based peer-to-peer interaction in a VE and what they finally declare as major VE outcomes. The greatest match between expectations and outcomes relates to intercultural or cultural aspects. Qualitative insights through open-ended questions nevertheless show that the benefits provided by the VE experience are manifold, and are necessarily largely narrowed down by exclusively quantitative measures of matching categories between initial expectations and final outcomes.

Our study evidences that students' expectations are partly influenced by the objectives targeted in the different courses. Yet, the perceived outcomes also reveal gains in transferable skills (such as collaborative, relational and communicative skills) that are not always promoted in the course objectives. VE results in unexpected benefits, as it is very often a new experience for students, and very different from other pedagogical settings they are used to.

Knowledge of students' expectations and of unforeseen outcomes can be considered as crucial for educators and course designers in order to take better advantage of the learning potential of VE when defining the learning objectives.

In parallel, targeted learning objectives that embrace this potential are likely to help students to develop more fine-tuned skills.

References

Brown, J. D., & Coombe, C. (2015). *The Cambridge guide to research in language teaching and learning intrinsic eBook*. Cambridge University Press.

EVOLVE Project Team. (2020). *The impact of virtual exchange on student learning in higher education*. EVOLVE Project publication. http://hdl.handle.net/11370/d69d9923-8a9c-4b37-91c6-326ebbd14f17

Gimeno, A. (2018). Learner expectations and satisfaction in a US-Spain intercultural telecollaboration project. *Bellaterra Journal of Teaching & Learning Language & Literature*, *11*(3), 5-38. https://doi.org/10.5565/rev/jtl3.776

Helm, F. (2015). The practices and challenges of telecollaboration in higher education in Europe. *Language Learning & Technology*, *19*(2), 197-217.

Helm, F., & van der Velden, B. (2020). *Erasmus+ Virtual Exchange. Impact Report 2019*. Publications Office of the European Union.

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*. *Education*. https://research.rug.nl/nl/publications/virtual-exchange-as-innovative-practice-across-europe-awareness-a

Marczak, M. (2016). Students' perspective on Web 2.0-enhanced telecollaboration as added value in translator education. In S. Jager, M. Kurek & B. O'Rourke (Eds), *New directions in telecollaborative research and practice: selected papers from the second conference on telecollaboration in higher education* (p. 245-252). Research-publishing.net. https://doi.org/10.14705/rpnet.2016.telecollab2016.514

Nissen, E., Felce, C., & Muller, C. (2020). Students' general perceptions. In EVOLVE Project Team, *The impact of virtual exchange on student learning in higher education* (pp. 32-49). EVOLVE Project publication. http://hdl.handle.net/11370/d69d9923-8a9c-4b37-91c6-326ebbd14f17

O'Dowd, R. (2018). From telecollaboration to virtual exchange: state-of-the-art- and the role of UNICollaboration in moving forward. *Journal of Virtual Exchange*, *1*, 1-23. https://doi.org/10.14705/rpnet.2018.jve.1

O'Dowd, R., & Lewis, T. (2016). *Online intercultural exchange: policy, pedagogy, practice*. Routledge.

The EVALUATE Group. (2019). *Evaluating the impact of virtual exchange on initial teacher education: a European policy experiment*. Research-publishing.net. https://doi.org/10.14705/rpnet.2019.29.9782490057337

Zhang, Y., & Wildemuth, B. M. (2009). Qualitative analysis of content. In B. M. Wildemuth (Ed.), *Applications of social research methods to questions in information and library science* (pp. 308-319). Libraries Unlimited.

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