Virtual Exchange in Early English Classrooms: Insights from Pre-primary and Primary EFL Teachers

Abstract

Virtual exchange (VE) is a didactic approach in which learners from different geographical, cultural and linguistic contexts communicate in a shared foreign language using technology. Research indicates that VE supports foreign language development, ICT skills, and intercultural competence, and promotes authentic communication (Dooly and Vinagre 2022; O'Dowd 2021; Rets, Rienties, and Lewis 2020). Despite the increased use of technology in education, VE remains uncommon in pre-service and in-service teacher education and is rarely implemented with primary learners. This study employed a survey to investigate the perspectives of Slovenian pre-primary and primary English language teachers (N = 81) on integrating VE into classrooms. The data revealed that few participants had prior VE experience, mainly due to a lack of international partnerships and pedagogical training. Nevertheless, attitudes towards VE were positive, with teachers recognising its potential for developing meaningful communication and cultural awareness. The findings highlight the importance of professional development programmes in supporting the integration of virtual exchange into classroom practice.

Keywords: meaningful communication, (pre-)primary teachers of English, virtual exchange, teachers' perspectives

Virtualna izmenjava pri zgodnjem učenju angleščine: izkušnje učiteljev

Izvleček

Virtualna izmenjava (VI) je didaktični pristop, pri katerem se učenci iz različnih geografskih, kulturnih in jezikovnih okolij sporazumevajo v skupnem tujem jeziku s pomočjo tehnologije. Raziskave kažejo, da VI podpira razvoj tujega jezika, veščine informacijsko-komunikacijske tehnologije (IKT) in medkulturno kompetenco ter spodbuja avtentično komunikacijo (Dooly in Vinagre 2022; O'Dowd 2021; Rets, Rienties, in Lewis 2020). Kljub vse večji uporabi tehnologije v izobraževanju, VI ni pogosto prisotna v izobraževanju učiteljev in se redko izvaja z osnovnošolci. Pričujoča študija je s pomočjo vprašalnika raziskovala vidike slovenskih učiteljev angleškega jezika v predšolskem in osnovnošolskem izobraževanju (N = 81) glede vključevanja VI v pouk. Rezultati so pokazali, da večina udeležencev ni imela predhodnih izkušenj z VI, predvsem zaradi pomanjkanja mednarodnih partnerstev in pedagoškega

usposabljanja. Kljub temu je njihov odnos do VI pozitiven, saj so učitelji prepoznali njen potencial za razvijanje smiselne komunikacije in kulturnega ozaveščanja. Ugotovitve poudarjajo pomen programov strokovnega izpopolnjevanja pri spodbujanju vključevanja virtualne izmenjave v poučevanje.

Ključne besede: smiselna komunikacija, učitelji angleškega jezika v vrtcu in osnovni šoli, virtualna izmenjava, vidiki učiteljev

1 Introduction

The pupils eagerly await their teacher, who opens TwinSpace[1] and displays digital postcards sent by a group of pupils in Poland. She then distributes printed postcards, calling out the pupils' names one by one. After reading the postcards, the pupils discuss with the teacher how to write replies to their Polish peers. To support the activity, the teacher writes sentence starters on the board and guides the pupils in structuring a postcard. The pupils then create digital postcards featuring images of their hometown and write their responses to the pupils in Poland. The following month, the pupils meet their Polish peers for the first time via a video conferencing tool. In preparation for the exchange, they created profile cards in a previous lesson containing information about themselves, such as their names, favourite colours, favourite food, hobbies, and pets, if they had any. They also practised introducing themselves and asking questions such as: *What is your (favourite) colour/food/hobby? Have you got a pet?* The teacher exchanged the profile cards with the teacher in Poland prior to the video conference, ensuring that each pupil received a profile card from a partner in the other class. During the video conference, the pupils take turns asking questions in order to identify their peers from the partner class.

The activities described above illustrate two examples of a virtual exchange (VE) project. The first is an asynchronous activity, which allows pupils to interact with peers from another country in their own time, without needing to be online simultaneously. The second is a synchronous activity, in which pupils communicate with peers in real time and practise their interactive communication skills. Most VE projects at primary school are carried out through the eTwinning initiative within the Erasmus+ programme (European Commission eTwinning n.d.). Despite the well-documented benefits of VE for the development of language and digital skills,

[1] TwinSpace is a secure online platform used by teachers and learners to collaborate on eTwinning projects.

as well as intercultural competence (Dooly and Vinagre 2022; O'Dowd 2017; The EVALUATE Group 2019), research on VE remains limited, particularly in the context of primary language learners (Peiser 2016; Pennock-Speck and Clavel-Arroitia 2023; Reader 2024; Weiss et al. 2026). Furthermore, relatively little is known about primary language teachers' perspectives on integrating VE into educational settings (Weiss et al. 2026). The new Slovenian Syllabus for English Language for Primary Schools (Ministrstvo za vzgojo in izobraževanje Republike Slovenije 2025) identifies online interaction and the development of digital skills as important goals of foreign language learning at the primary level. VE offers a meaningful approach to achieving these objectives, provided that teachers are sufficiently prepared to implement it effectively in their classrooms.

Given the potential of VE to provide meaningful language learning opportunities and foster intercultural communicative competence, the main aim of this study was to investigate Slovenian primary and pre-primary teachers' views and experiences regarding VE projects in early language learning. This paper, therefore, explores teachers' perspectives on implementation of VE into lessons, the types of VE projects they have conducted with their pupils, the challenges they have encountered, as well as their self-assessed competences, needs, and intentions regarding future use of VE in their teaching practice. Based on the survey findings, professional development programmes can be designed to address the areas that participants identified as essential for the successful integration of VE into classroom practice.

The following sections define VE and discuss its role in foreign language learning, with particular attention to its benefits and challenges at the (pre-)primary level. In addition, examples of VE integration into the Slovenian primary education context are presented. Finally, the paper introduces a study conducted among primary and pre-primary teachers of English as a foreign language in Slovenia aimed at examining their views and experiences of VE.

2 Virtual Exchange in (Pre-)Primary Foreign Language Teaching

Melinda Dooly and Margarita Vinagre define VE as "the process of communicating and collaboratively learning with peers from different locations through the use of technology" (2022, 393). The term has come into use in recent years, replacing previous terms that were often used interchangeably, such as Telecollaboration, eTandem, Teletandem, Collaborative Online International Learning (COIL) and Online Intercultural Exchange (OIE) (O'Dowd

2018a, 2021). Although these concepts differ slightly in focus, they all refer to online collaboration between learners with the help of ICT. O'Dowd (2018a) states that 'virtual exchange' is the most suitable term, as it functions as an umbrella concept encompassing these different approaches within an educational framework, while placing greater emphasis on learner collaboration and intercultural exchange rather than on technology itself. As illustrated in the introductory examples, VE generally involves two main modes of collaboration: asynchronous and synchronous. Asynchronous interaction does not take place in real time and may include activities such as exchanging emails or letters, collaboratively writing an e-book, creating videos, or completing other shared digital tasks. Synchronous interaction, by contrast, encourages real-time communication. At the primary level, this often involves meetings via video conferencing tools, during which learners communicate with one another, play guessing games, read stories, sing songs, or participate in other collaborative activities (O'Dowd and Lewis 2016; Pennock-Speck and Clavel-Arroitia 2023; Reader 2024). These examples illustrate only a small selection of the many synchronous and asynchronous activities that can address different topics depending on the age, interests, and language level of the learners. Teachers often demonstrate considerable creativity in designing VE projects, as reflected in the wide variety of eTwinning projects, including cross-curricular storytelling, collaborative problem-solving, film-making, international escape rooms, and many other innovative forms of online collaboration (European Commission, eTwinning n.d.).

VE as a didactic approach is closely linked to other communication-based approaches to language teaching, particularly the Communicative Approach (CA), Task-Based Language Teaching (TBLT), Project-Based Language Teaching (PBLT), and Content and Language Integrated Learning (CLIL) (Dooly and Vinagre 2022; O'Dowd 2018b). Its relation to the CA lies primarily in the authentic use of a foreign language for communication. In addition, the EVALUATE Group (2019) found that many teachers rely on TBLT principles when planning VE activities, as the nature of VE requires learners to complete meaningful, collaborative tasks. VE also shares important characteristics with PBLT, since learners engage in projects that extend beyond the classroom and frequently collaborate to create a shared product. Finally, CLIL provides an effective framework for VE, by integrating curriculum content with foreign language learning and supporting the development of the 4Cs framework (Content, Communication, Cognition, and Culture) (Dooly and Vinagre 2022; O'Dowd 2018b).

There are many benefits associated with the use of VE in the language classroom. Research highlights improvements in speaking skills, increased willingness to communicate, and reduced

anxiety when using a foreign language (Canals 2020; Dooly and Vinagre 2022; The EVALUATE Group 2019). These benefits arise from learners having the opportunities to use the target language in authentic contexts while interacting with peers, thus making communication purposeful and meaningful (O'Dowd 2021; Reader 2024). In addition, many authors identify the development of intercultural communicative competence (ICC) as one of the key advantages of VE (Godwin-Jones 2019; Dooly and Vinagre 2022; Helm 2024; Higgins 2024; O'Dowd 2018b, 2021). Michael Byram's model of ICC (2021) includes several interconnected dimensions, such as knowledge, skills, attitudes and critical cultural awareness of intercultural understanding, and is therefore commonly used in VE projects both as a learning goal and as a pedagogical resource. Cavalheiro (2015) further argues that more attention should be given to the development of ICC, as it represents a crucial life-long communication skill. VE offers a particularly accessible way of fostering ICC among young language learners, for whom international travel is hard to achieve. Research has also demonstrated the positive impact of VE on the development of digital skills (Rets, Rienties, and Lewis 2020; Symeonidis and Impedovo 2023). Through participation in VE projects, learners actively use digital tools and various digital forms of communication while simultaneously developing digital etiquette necessary for successful online intercultural interaction. Research has also shown that VE is beneficial for the development of soft skills, such as teamwork, adaptability, and more effective problem-solving (EVOLVE Project Team, 2020).

Despite its many benefits, the integration of VE into language classrooms also presents several challenges. Among the most common obstacles, research identifies technological difficulties as well as differences in time zones and school schedules as factors that hinder the successful implementation of synchronous VE activities (Helm 2024; Peiser 2016). Moreover, some studies (Pennock-Speck and Clavel-Arroitia 2023; Reader 2024; Weiss et al. 2026) highlight young learners' limited language proficiency as a significant challenge in VE projects. This may partly explain why VE remains less common at the primary level. Therefore, careful task planning and appropriate language scaffolding are crucial for successful implementation (O'Dowd and Lewis 2017; Reader 2024). Kurek and Müller-Hartmann (2017) also emphasise the importance of highly structured and feasible tasks, proposing a three-stage sequence in which pupils first exchange personal information; then analyse and compare cultural practices, and finally collaborate on the creation of a shared product.

In addition to careful task design, teachers require a range of specific competences for the effective implementation of VE projects. Firstly, they need to become familiar with the VE

approach and its classroom applications. Dooly and Vinagre (2022) argue that the diversity of VE contexts requires teacher education to be both context-bound and boundless to address the broad scope of VE practices. O'Dowd and Lewis (2016) developed a model of VE teacher competences that includes organisational, pedagogical, and digital competences, while also emphasising the importance of teachers' intercultural attitudes and beliefs for successful project implementation. In addition to general VE competences, Weiss et al. (2026) identify additional competences specific to the primary school context, such as child-centred and well-structured task design, communication with parents and appropriate scaffolding strategies. Therefore, both pre-service and in-service teacher education play a crucial role in supporting the successful integration of VE into classroom practice.

2.1 VE in the Slovenian context

In the Slovenian educational context, VE is mainly implemented through eTwinning projects. According to data from the European Commission (2025), eTwinning has connected more than 1.2 million teachers and over 3 million pupils from nearly 300,000 schools across 46 countries since 2005. In Slovenia, eTwinning has become an important platform for international cooperation in education. Lenc et al. (2016) report that 539 Slovenian schools and kindergartens are part of the eTwinning community. Most of these institutions are primary schools, about 350, with approximately 1,000 projects completed by that time.

The most successful projects are recognised annually with the National Quality Label awarded by CMEPIUS, Slovenia's national eTwinning agency. The award criteria include, among others, innovation in teaching, collaboration between partner schools, creative use of technology, curricular integration and the project's impact on learners, schools, and the wider community (CMEPIUS n.d.). One notable example is the 2025 national award-winning project 'Twinverse' in the 7–11 age category. The project brought together pupils and teachers from 12 countries, combining the topics of the Solar System and emotional awareness. Pupils worked together in international groups to create digital books, posters, presentations and physical models (Twinverse, European School Education Platform n.d.). Other successful projects focused on STEM, sustainability, or cultural heritage, where pupils explored local traditions, festivals, and food, creating virtual exhibitions, recipe books, and short documentary videos with peers from other countries (CMEPIUS n.d.). These projects demonstrate how VE can foster authentic communication, intercultural learning, and digital competence among young learners.

3 Method

The aim of the study was to explore in-service (pre-)primary EFL teachers' opinions, experiences, and future intentions regarding VE. It examined how participants perceive the value and challenges of VE, as well as their professional competences related to it, and how factors such as years of experience and prior involvement in VE influence their perspectives.

To achieve these aims, the following research questions were formulated:
RQ1: What are participants' opinions regarding virtual exchange (VE) and to what extent are they affected by years of service and previous involvement in VE?
RQ2: What do participants believe is the added value of VE compared to on-site teaching?
RQ3: How have participants with previous experience of VE organised and implemented their projects?
RQ4: What kinds of challenges did participants anticipate/face when conducting VE projects?
RQ5: How do participants perceive their competences regarding VE projects?
RQ6: Which areas of VE projects would participants like to develop professionally?
RQ7: How many participants plan to carry out VE projects in their future?

3.1 Sampling and Sample Description

The adopted sampling strategy was non-probability convenience, and the sampled units consisted of Slovenian pre-primary and primary school teachers, teaching in urban and rural public schools (N = 81). Pre-primary teachers taught children aged 1–6, while primary teachers taught in the first cycle (Grades 1–3) and second cycle (Grades 4–6) of a 9-year primary school. Regarding gender, there were 76 female (93.8%) and 5 male (6.2%) teachers. A total of 75 participants (92.6%) worked in primary school, while only 6 (7.4%) worked in preschool, which is directly linked to their qualifications: 82.7% reported having studied Primary Education with English (generalist) and a further 17.3% completed an English Teacher (specialist) study programme. Participants were asked in which grades they teach, and as illustrated below (Figure 1), approximately 50–60% teach in grades 1–4, fewer than 10% work in pre-school (consistent with their job position), while 20% of all participants teach in grade 6.

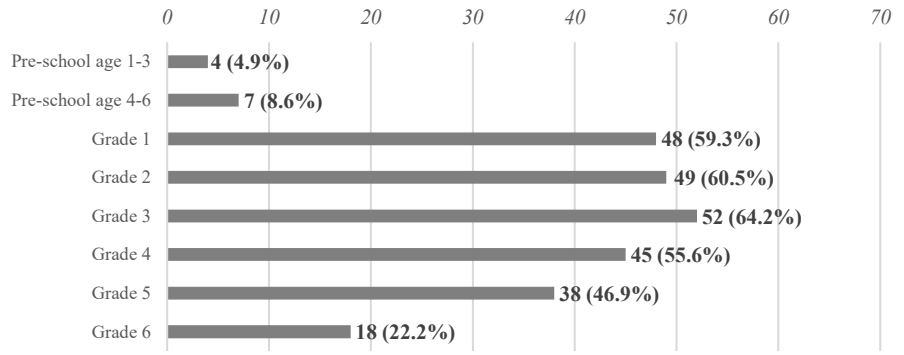

FIGURE 1. Grades in which participants teach.

On average, the surveyed teachers are 36 years old (M = 35.86, M_o = 25, SD = 8.940, Min = 24, Max = 54) and have been working at their current position for just over 10 years (M = 10.44, Mo = 2, SD = 8.364, Min = 1, Max = 30).

3.2 Data Collection and Analysis

A descriptive and causal non-experimental design was applied within the framework of pedagogical research. The study adopted a quantitative research approach, complemented by content analysis of open-ended responses. An online questionnaire served as the primary data collection instrument, specifically the 1KA (*https://www.1ka.si/*) online survey platform, administered between February and May 2024. The survey comprised 32 questions addressing participants' understanding of VE, experiences with VE, challenges related to VE, competences concerning VE, and their needs regarding VE projects. The questions included dichotomous, multiple-choice, Likert-type scales, numerical scales, and open formats. Open-ended questions were categorised by a team of specialists, reducing the likelihood of subjective interpretation. All subsequent data processing and analysis were conducted using IBM SPSS Statistics 26, which served as the sole statistical software for data editing, application of logical controls, data tabulation, and statistical analyses. The analytical approach included both descriptive and inferential statistics. Descriptive measures comprised means, standard deviations, modes, frequency counts, and relative frequencies. Inferential analyses were primarily bivariate and non-parametric, including the Mann–Whitney U test, Wilcoxon signed-rank test, Kruskal–Wallis H test, and Friedman test, with appropriate post hoc procedures applied where necessary.

4 Study Findings

The study findings in this section are presented according to the research questions outlined in section 3. The subsections first describe participants' views on the use of VE with (pre-)primary learners, their opinion on the added value of VE projects, and their experiences with organising and implementing such projects. The following sections address the challenges participants anticipate or experience in conducting VE projects, participants' self-reported competences related to the use of VE in the classroom, the areas of VE in which participants would like to develop professionally, and their plans for VE implementation in their future lessons.

4.1 Participants' Opinion Regarding Virtual Exchange

First, we aimed to investigate what the participants think about virtual exchange, specifically what they perceive as its main benefits and constraints. As we were unsure whether the participants were familiar with the term 'virtual exchange', we provided a short description at the beginning of the survey. The definition of VE was adapted to the context of pre(primary) language learning, as our participants were teachers working with that age group, and we wanted them to fully understand the content of the questionnaire:

> Virtual exchange (VE) in language education is the process of communicating in a shared foreign language and collaboratively learning with peers from different countries through the use of technology (adapted from Dooly and Vinagre 2022: 393). An example of virtual exchange is when *pupils in Spain meet online with pupils in Slovenia and communicate in English to talk about their favourite food.*

The results described below are related to the first research question of the study, namely: *What are participants' opinions regarding virtual exchange (VE) and to what extent are they affected by years of service and previous involvement in VE?*

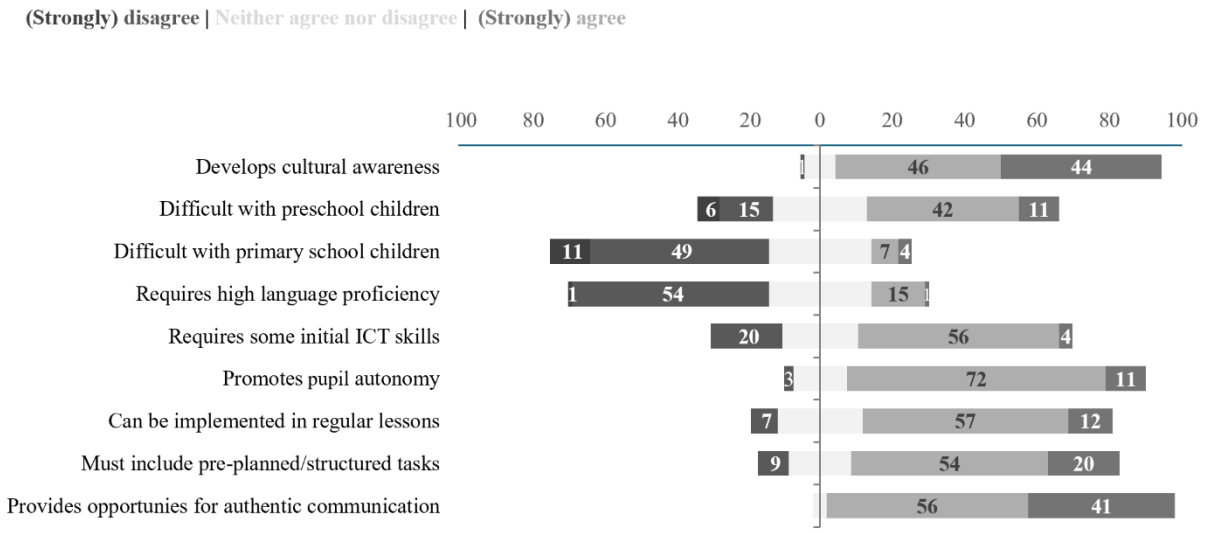

FIGURE 2. Participants' opinion regarding virtual exchange.

Figure 2 shows that most study participants believe that VE is beneficial for preschool and primary school learners. They most strongly agree with the statements that it develops cultural awareness (90%) and provides opportunities for authentic communication (97%). Other statements (e.g., 'must include pre-planned/structured tasks', 'can be implemented in regular lessons' and 'it promotes pupil autonomy') also received a high level of agreement. Interestingly, participants mostly disagreed with the statement that VE is difficult to implement with primary school children (60%) and that it requires a high level of language proficiency (55%). However, many of them agreed that it is difficult to implement VE with preschool children (53%).

To verify whether their scores are dependent on years of service, the latter was first recoded into a new four-level ordinal variable, the values being: (1) 1–3 years (novice teachers), (2) 4–6 years (proficient teachers), (3) 7–18 years (experienced teachers), (4) 19–31 years (master teachers). What followed was a series of Kruskal-Wallis H tests to ascertain if differences appear between these subgroups in terms of participants' opinion. However, for all nine statements presented above, the results were non-significant ($|.159| \leq p \leq |.823|$), as we have not found sufficient evidence to support any alternative hypothesis or rather the data did not signal major discrepancies. Apart from non-optimal sampling strategy, having four substrata divided from an already relatively small sample might help to explain non-significant differences in opinion.

If not influenced by years of service, differences in perception may be related to prior experience. While most participants (N = 64, 79.0%) had not previously been involved in virtual exchange projects, the remaining 17 individuals (21.0%) prompted reflection on possible variations in perception. Mann-Whitney U tests with subsequent r-measure for effect size were implemented (Table 1), based on which we can present that prior engagement can explain the difference for only one statement, "is difficult with primary school children" (U = 313.50, z = -2.891, p = .004, r = .32).

TABLE 1. Mann-Whitney U test for the statement "is difficult with primary school children".

	Prior experience	***N***	$\overline{R}$	**Sum of** $\overline{R}$	***U***	***z***	***p***	***r***
... is difficult	Yes	17	27.44	466.50	313.50	-2.891	.004	.32
	No	64	44.60	2854.50				

Teachers with prior experience were more likely to disagree with the statement that VE is (more) difficult to carry out with primary school pupils than their colleagues who had not had any previous experience with such projects. A general conclusion that can be drawn is that the individuals without prior experience tend to overestimate the complexity of a task due to increased uncertainty. This uncertainty may heighten anxiety about managing a complex process such as virtual exchange, which requires pedagogical, communicative, and digital competencies, as well as additional administrative work.

4.2 Added Value of Virtual Exchange

In addition to examining participants' opinions on VE, we also wanted to explore which areas they believe are beneficial for their learners when employing VE as an approach in language teaching compared to teaching methods that do not extend beyond the classroom. The question in the survey was open-ended, allowing for more diverse answers. Table 2 shows the answers to the second research question: *What do participants believe is the added value of VE compared to on-site teaching?*

TABLE 2. Participants' beliefs regarding the added value of virtual exchange.

	f	*%*
Facilitates authentic and/or meaningful communication	14	21.5
Promotes cultural exchange and/or awareness	12	18.5
Flexibility in terms of execution	12	18.5
Motivational	11	16.9
Improved acquisition of knowledge	5	7.7
Use of ICT and remote learning	4	6.2
Experiential learning	3	4.6
I don't see any added value	3	4.6
I don't know	1	1.5

The categories, or rather the responses seen in the table above, have been categorised by a triangulation of researchers with which we minimized any kind of subjectivity and have returned to our analysis many times over to ensure replicability or at least congruence. Most teachers (21.5%) indicated that virtual exchange facilitates authentic and/or meaningful communication, promotes cultural exchange and/or awareness (18.5%), and is flexible in terms of execution (18.5%) (Table 2).

4.3 Participants' Experiences with VE

One of the main goals of the study was to investigate the breadth of experience with VE among Slovenian pre-primary and primary teachers, working in kindergartens and in the first and second cycles of primary education. We aimed to examine how many participants had any experience with VE and how they had organised and implemented such projects (RQ 3).

Only 17 out of 81 participants (21.0%) had previous experience with VE. On average, these participants had carried out 3.47 projects during their teaching careers (95% CI between .96 and 5.98). The majority of these projects were conducted through the eTwinning scheme or through ERASMUS+ projects combined with eTwinning (11 out of 17). Participants reported that, during the online meetings, their learners mostly presented their work to each other (N = 12) or shared their experiences (N = 13). In asynchronous activities, they sent texts or videos to each other (N = 13) or wrote letters (N = 12). Eight participants reported that their learners collaborated with a partner school on a joint project, which is a common activity in VE. They

also indicated that they primarily prepared for VE projects by practising language structures and vocabulary with their learners (N = 10), preparing materials for the exchange (N = 11) or working on dialogue scripts (N = 4). As expected, more than half of the VE topics implemented by the participants were related to cultural issues or to learners sharing their personal information (e.g., name, age, family, pets, favourite things). Other commonly used topics in VE pertained to holidays, festivities, traditions and the environment.

4.4 Challenges in Conducting VE Projects

The fourth research question (i.e. *What kinds of challenges did participants anticipate/face when conducting VE projects?*) was first divided into two parts: a) challenges participants who did not have prior experience anticipated when using VE in the classroom, and b) challenges that participants with experiences faced when conducting VE projects with learners. Table 3 presents the answers to the first part of the research question and Figure 3 the answers to the second part of the research question. The first part of the question was asked in an open manner in the survey (N = 59), and the second part was a closed question in which the participants marked the frequency of the problems they had experienced (N = 17).

TABLE 3. Participants' anticipated challenges in conducting VE projects.

	f	***%***
Appropriate equipment, technology and maintaining internet connection	14	23.7
Time management	10	16.9
Learner language proficiency	10	16.9
Organisation and teacher involvement	7	11.9
Finding and/or working with a partner	6	10.2
Implementation in the curriculum	6	10.2
Learner motivation and engagement	4	6.8
I don't know / I am not sure	2	3.4

The respondents, who had no prior experience in conducting VE projects, identified "appropriate equipment, technology and maintaining internet connection" (23.7%) as the primary challenge, followed by "time management" (16.9%) and "learner language proficiency" (16.9%) as additional areas of concern (Table 3). Other areas of concern included

organisation of VE, finding partners, how to implement VE into the curriculum and how to motivate learners and engage them actively in such exchanges.

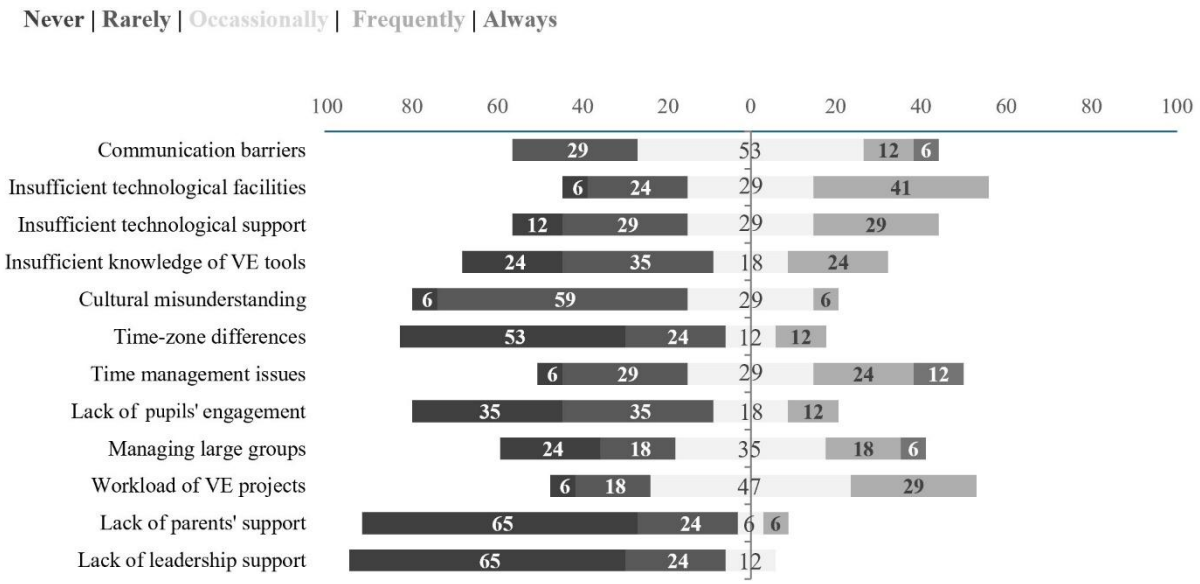

FIGURE 3. Problems regarding virtual exchange (in %).

If we assume that the category of "occasionally" corresponds with a neutral standing, then we can assert that most teachers did not report any high frequencies regarding distinct problems with virtual exchange. The possible exception to that observation is the instance of "insufficient technological facilities" (41%) and perhaps the "workload" (29%) that VE projects add to the existing tasks and responsibilities, as these seem to be more prominently testified. Conversely, three varieties that almost did not cause any hindrances are "time-zone differences" (12%), "lack of parents' support" (6%) and "lack of leadership support" (0%) as most teachers opted for "never" or "rarely".

This exhibits that the sample of Slovenian teachers who had tangible experience with virtual exchange reports few problems or rather low frequencies of proposed problems. However, this should be interpreted with caution, as the entire subsample included only 17 individuals, making it insufficient to draw definite conclusions and highlighting the need for further in-depth analyses. In descriptive terms, when comparing those with and without prior experience, both groups identified technological obstacles as the primary challenge – an understandable concern, as such issues are largely beyond teachers' control and often cause frustration.

4.5 Participants' Competences Regarding VE Projects

First, we wanted to enquire whether the study participants had received any kind of training in VE during their pre-service or in-service professional development. We found that only 9.9% (8 out of 81) participants had taken part in VE training, the majority of which was delivered through presentations of good practice given by their colleagues at schools (6 out of 8). Our next step was to examine how the participants rated their competences in different areas of organising VE. They assessed their competence level on a scale from 1 to 10, with 1 indicating 'not competent at all' and 10 indicating 'extremely competent'. All the participants rated their competence level, even if they had not been involved in VE before. Figure 4 below shows the answers to the RQ5, i.e., *How do participants perceive their competences regarding VE projects?*

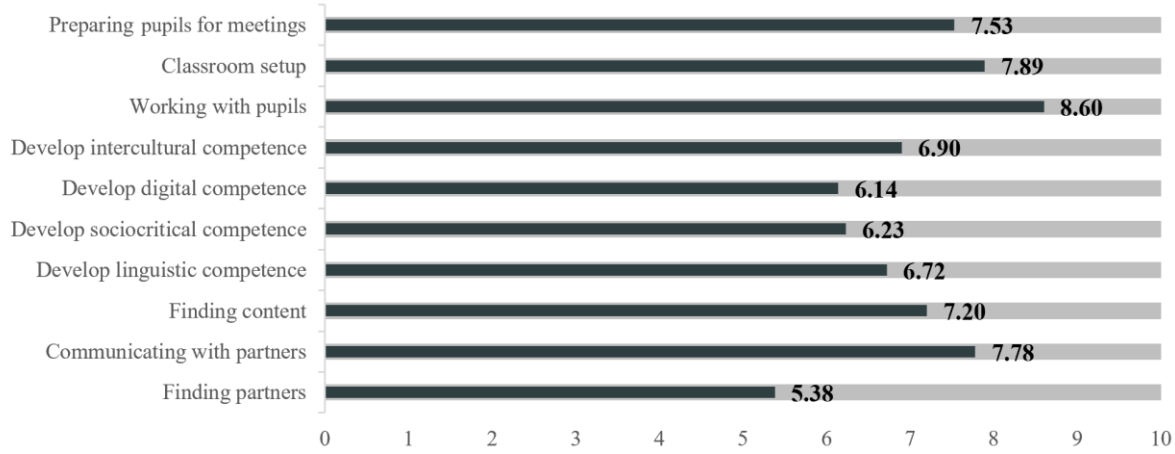

FIGURE 4. Participants' perception of their competence regarding VE projects.

"Working with pupils" was rated highest (M = 8.60), which is not surprising as this is not something exclusive to VE, but rather a routine aspect of teaching. A similar explanation can be given to "classroom setup" (M = 7.89), having the second highest average score and for "communicating with partners" (M = 7.78) being ranked third. Now, the latter can be initially interpreted as specific to VE, but it parallels teachers' arranging assignments, events, projects and excursions with their colleagues, planning activities within their working groups, and similar. The lowest assessed competence was finding partners for VE, which shows that participants struggle with a fundamental skill needed for VE – without partners VE projects cannot be conducted.

The competences differ in their scores, and Friedman's Two-Way ANOVA by ranks confirmed these differences as statistically significant ($\chi^2(9) = 273.529$, $p < .001$). Post hoc Wilcoxon tests with Bonferroni adjustment showed that working with pupils was rated significantly higher than all other areas except "classroom setup", which itself outperformed most others (except "communicating with partners", "preparing pupils for meetings", and "finding content"). "Communicating with partners" ranked third, scoring higher than several lower-ranked competences. In summary, competences more peripheral to primary teaching – such as "finding partners", "developing digital competence", and "developing socio-critical competence" – were not only lower rated but also significantly lower than those central to primary education.

4.6 VE Areas Participants Would Like to Develop

The sixth research question was related to the areas of VE projects that participants would like to develop professionally. Participants were given the most common areas within VE, and they ranked their preference to develop them on a scale from 1 to 10, 1 indicating 'I would like to develop this area the most' and 10 indicating 'I would like to develop this area the least'.

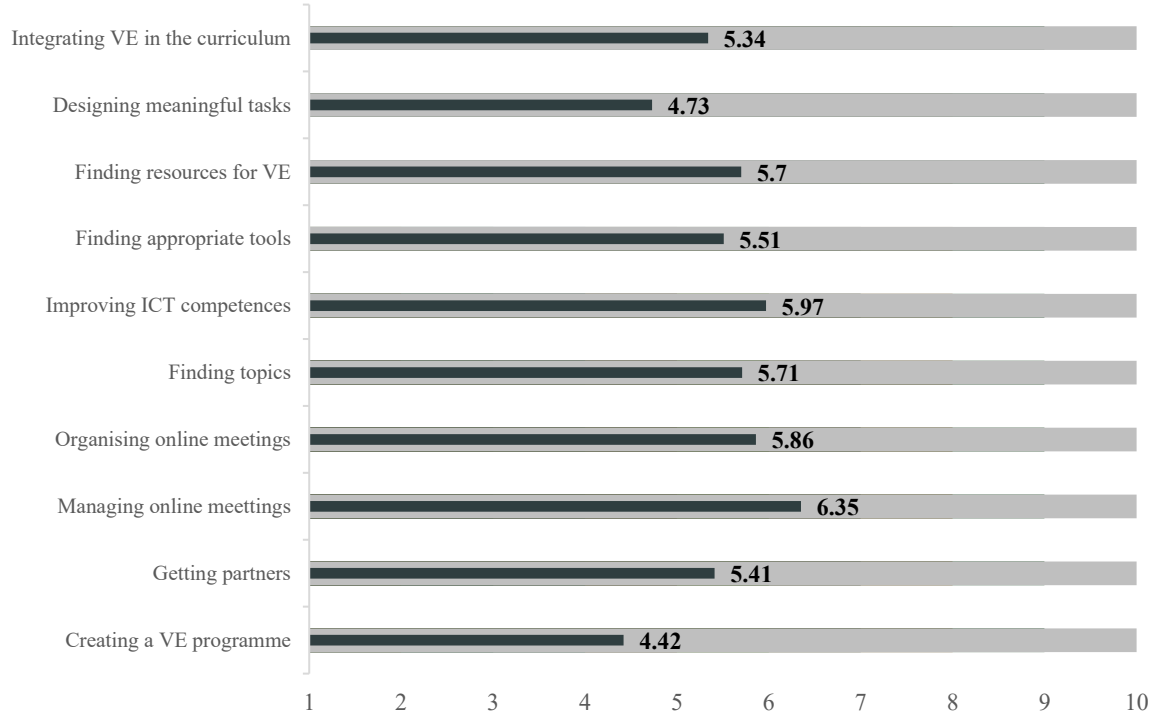

FIGURE 5. Areas of VE projects participants would like to develop professionally.

A brief overview (Figure 5) suggests that, apart from "managing online meetings" and "creating a VE programme", no area stands out from the rest. The former received higher ratings, indicating a weaker desire for further professional development, while the latter received lower

ratings, indicating a stronger desire for further development, noting that lower mean rank scores reflect stronger preferences. Creating a VE programme encompasses the entire process and therefore involves many areas in which participants would like to develop. Similarly, designing meaningful tasks within VE seems to be an area where participants require additional support and guidance. Friedman's test ($\chi^2(9) = 25.506$, $p = .002$) indicates that there are significant differences in how teachers ranked areas of potential further improvement, yet noteworthy pairwise comparisons related only to "managing online meetings with the learners". Upon removing "creating a VE programme" and "managing online meetings" from analyses, the results were no longer statistically significant.

4.7 Participants' Plans to Implement VE

The final research question explored participants' plans for implementation of VE into their future lessons (RQ7: *How many participants plan to carry out VE projects in their future?*).

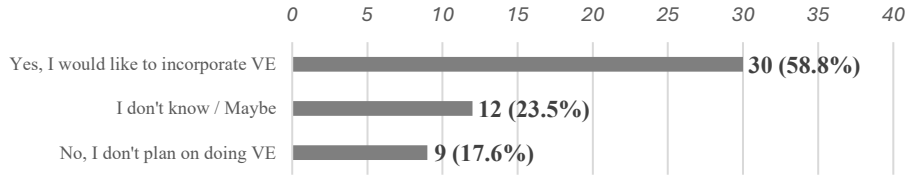

FIGURE 6. Participants' plans to carry out VE projects in the future.

Among the participants who responded, the majority are inclined to become involved in a VE project with their learners (Figure 6). However, 11 out of 30 have conditioned their participation on receiving support or having the opportunity to learn more first. This indicates that, while VE is appealing to the sampled teachers, many still feel they need additional training to gain confidence in implementing it in the classroom. This is further supported by the high proportion of participants who have not yet decided whether they would like to conduct such a programme (23.5%).

5 Discussion

The study explored Slovenian preschool and primary school teachers' perceptions, experiences, and future intentions regarding the implementation of VE. Overall, the findings reveal a positive yet cautious attitude toward VE, characterized by enthusiasm for its pedagogical potential but accompanied by concerns about technological and organizational barriers. This tension between willingness to implement VE projects and uncertainty about its implementation reflects a

broader pattern identified in European research on VE at different educational levels. Despite VE being promoted as an innovative teaching approach, many teachers still lack the institutional conditions, training opportunities and pedagogical support. This suggests that positive attitudes alone are not sufficient for successful integration of new approaches, teachers need concrete experiences, mentoring and technological means to integrate VE projects into practice.

Similar tendencies have been observed across Europe. The EVALUATE Project (2019), which examined the impact of VE on pre-service primary and foreign language teachers across several European countries, found that participants widely recognized VE as a valuable tool for developing digital, linguistic, and intercultural competences, yet also identified limited technological resources and insufficient institutional support as persistent challenges. Likewise, Symeonidis and Impedovo (2023) reported that virtual exchanges between Austrian and French universities fostered intercultural understanding and openness to collaboration but required strong organizational frameworks and sustained facilitation. Complementary findings by Rets, Rienties, and Lewis (2020) in a UK-based VE programme indicated that while online collaboration enhanced pre-service teachers' technological and pedagogical knowledge, variations in confidence and access to support continued to influence outcomes. These studies, together with the present findings, indicate that the challenges associated with VE are not merely related to technology, but reflect a variety of issues that need to be addressed in teacher education.

Participants' general views of VE were favourable, as the majority agreed with statements highlighting its educational relevance and collaborative potential. However, no statistically significant differences were observed across groups divided by teaching experience. This indicates that years of service did not influence attitudes toward VE and that assumptions about younger teachers being more digitally confident may not be accurate. In contrast, prior experience with VE did have a measurable effect. About 21% of teachers (N = 17) had previously conducted a VE project, and this subgroup was significantly less likely to agree that VE is difficult to implement with primary school children. This finding suggests that hands-on engagement reduces perceived difficulty and anxiety, supporting the idea that uncertainty among inexperienced teachers can amplify perceived challenges. It also highlights the importance of experiential learning in teacher education, i.e., teachers develop confidence through opportunities to engage in VE projects in practice.

These results align also with similar research on VE. For instance, Symeonidis and Impedovo (2023) found that teachers with prior VE experience reported greater confidence and perceived the implementation process as less challenging. Similarly, the VALIANT project indicated that prior engagement with virtual exchange enhanced teachers' self-efficacy and professional development (O'Dowd and Vinagre 2024). Xu et al. (2025) also showed that pre-service teachers with previous VE experience were better prepared for intercultural collaboration, while Ingrisch-Rupp and Symeonidis (2025) highlighted that familiarity with VE reduces anxiety and supports successful adoption in educational contexts. These findings suggest that teacher education programmes should go beyond theoretical presentations of VE and include small-scale, guided VE projects in pre-service and in-service teacher education, especially at primary and pre-primary levels, where teachers need more support in scaffolding language and preparing young pupils for online interaction.

When asked about VE's added value compared to on-site teaching, teachers in this study most frequently mentioned authentic and meaningful communication (21.5%). This emphasis mirrors earlier work by O'Dowd (2017) and Helm (2024), who found that teachers perceive virtual exchange as a means to foster authentic interaction and meaningful dialogue between geographically distant participants. The second most frequently mentioned benefit, cultural exchange and intercultural awareness (18.5%), is likewise consistent with previous research demonstrating that VE enhances intercultural communicative competence and promotes reflection on cultural diversity (Emir and Yangın-Ekşi 2024, Helm 2024). These findings are significant, because they reflect teachers' views on the importance of contextualised learning and meaningful cultural and social interaction in language teaching.

Teachers also highlighted flexibility in execution (18.5%) as an advantage of VE. Similar observations were made by Hinshaw, Gonzalez, and Engel (2022) and O'Dowd and Vinagre (2024), who reported that virtual exchanges allow for adaptable implementation across different institutional and time-related contexts while developing teachers' digital pedagogical skills. The perceived benefit of increased learner motivation (16.9%) further aligns with findings by Canals (2020) and Higgins (2024), who found that participation in VE projects can significantly enhance learners' engagement and willingness to communicate. In addition, a smaller number of teachers referred to improved foreign language proficiency (7.7%), supporting Godwin-Jones's (2019) and Canals's (2020) findings that VE contributes to the development of linguistic and communicative competence. The use of ICT (6.2%) was also acknowledged as a benefit,

echoing previous studies that emphasized VE's role in fostering technological proficiency among educators (Hinshaw, Gonzalez, and Engel 2022, O'Dowd and Vinagre 2024). Overall, these results suggest that teachers primarily associate VE with intercultural communication, authentic interaction, and learner motivation, while a small subset remains unconvinced of its added value, a scepticism that may stem from the logistical and institutional challenges also noted by Emir and Yangın-Ekşi (2024) and Hinshaw, Gonzalez, and Engel (2022).

Among the 59 participants without prior VE experience, the most frequently cited expected difficulties were technical issues and connectivity (23.7%), followed by time management (16.9%), and pupils' language proficiency (16.9%). These concerns closely align with findings by O'Dowd (2017), Hinshaw, Gonzalez, and Engel (2022), and Emir and Yangın-Ekşi (2024) who all reported that technological reliability, access to digital infrastructure, and pupils' digital readiness represent persistent barriers to effective VE implementation. Similarly, Symeonidis and Impedovo (2023) observed that coordination across institutions and platforms often poses logistical and time-related challenges, while Hilliker and Yol (2022) found that teachers struggle to manage virtual collaboration due to differing schedules and task structures. Other anticipated challenges included organization and teacher collaboration (11.9%), partner finding (10.2%), and curricular workload (10.2%). These difficulties resonate with findings by O'Dowd and Vinagre (2024) and De Luca (2023), who emphasized that establishing sustainable partnerships and aligning VE activities with curricular goals require considerable planning and institutional support. As Godwin-Jones (2019) also noted, a lack of coordinated pedagogical design can hinder collaboration between educators and limit the long-term impact of virtual exchange. Such concerns may be even more visible in preschool and primary education, where teachers must balance young learners' needs, classroom management, and curricular goals.

Notably, only 9.9% (8 teachers) had received any kind of VE training – most through presentations of good practice (6 out of 8). This low figure highlights the lack of structured professional development, a gap consistently identified in the literature (De Luca 2023, Hinshaw, Gonzalez, and Engel 2022, O'Dowd 2017). Even among those with experience, technological constraints were the most prominent issue, suggesting that systemic and infrastructural support remain critical prerequisites for successful VE implementation. These findings imply a need for more systematic inclusion of VE into teacher education, providing opportunities for pre-service and in-service teachers to learn from good practice examples and to test different VE activities and strategies with young learners.

Teachers rated their competences highest in working with pupils (M = 8.60), followed by classroom setup (M = 7.89) and communication with partners (M = 7.78). These are primarily traditional teaching competencies rather than VE-specific ones. In contrast, competences such as finding partners, digital skills, and socio-critical competence received significantly lower scores. This pattern reflects confidence in general pedagogy but relative uncertainty about digital and intercultural aspects of VE. Teachers working with young learners are often well prepared for classroom interaction and child-centred pedagogy, but they may have fewer opportunities to develop digital and intercultural teaching practices. Similarly, García-Martín, Rodolfo, and García-Martín (2023), report that teachers in both Spain and the United States felt confident in their general pedagogical skills but less so in their ability to use digital tools – particularly when training or infrastructure was insufficient. In addition, findings from the *International Computer and Information Literacy Study* (ICILS) indicated that teachers with strong computer self-efficacy tend to place greater emphasis on developing pupils' digital information and communication skills (European Commission, Directorate-General for Education, Youth, Sport and Culture 2024). However, confidence declined when it came to more advanced ICT-related practices such as digital collaboration or complex tool use (Siddiq and Scherer 2016). In a similar context, research on pre-service social studies teachers in Turkey revealed a moderately strong correlation between self-perceived digital literacy and ICT competencies yet also highlighted substantial gaps among those with limited experience or exposure to digital pedagogies (Çetin and İşçi 2023).

Teachers expressed the strongest interest in developing skills related to managing online meetings and designing VE programmes – both of which were rated significantly higher than other potential learning areas. This demonstrates a demand for practical, task-oriented training rather than abstract theoretical input. Similar findings were reported by Nissen and Kurek (2020), who found that teachers engaged in virtual exchange valued training focused on concrete pedagogical and technical skills, particularly in task design and online coordination. Likewise, Rets, Rienties, and Lewis (2020) observed that structured, hands-on support in VE led to measurable improvements in TPACK (*Technological Pedagogical Content Knowledge*) competences as perceived by teachers. Similarly, Naveed, Muhammad, and Siddiqui (2022) found that virtual professional development improved teachers' confidence and online classroom management skills but emphasized the need for timely, well-structured support. This

could be realised in the form of model VE lessons, observations of successful exchanges and collaborative task planning.

Finally, when asked about future intentions, the majority of respondents stated they would like to implement a VE project in the future. However, more than one-third conditioned their participation on receiving additional support or training first. This indicates that although teachers hold a positive view of VE and show readiness to implement it, their engagement largely depends on confidence and institutional support – a pattern also noted by Bennet and Wigham (2024) in their study on VE task design, where guided mentorship and institutional support were key determiners of teachers' sustained engagement. The study therefore highlights the need to position VE as an integral part of early language education supported by structured pre-service and in-service professional development.

6 Conclusion

In this paper, we have discussed the implementation of VE in the foreign language classroom and presented the experiences and perspectives of Slovenian primary and pre-primary teachers of English regarding its use in teaching English as a foreign language. The findings indicate that the teachers who participated in the survey recognise VE as a valuable approach for fostering authentic and meaningful communication, intercultural awareness, and learner motivation. However, the limited experience with VE among participants and the few opportunities for training suggest that its broader implementation is still constrained by practical and pedagogical challenges. These challenges include technological issues, time management, and the low language proficiency of pupils. Furthermore, participants have expressed the need to develop skills for integrating VE into the curriculum, designing meaningful synchronous and asynchronous tasks, and establishing international partnerships.

The study highlights the importance of systematic support for teachers if VE is to become a sustainable element of language education. Both pre-service and in-service teacher education programmes should therefore include practical VE training that enables (future) teachers to experience online international collaboration firsthand, develop project design skills, and gain access to professional networks for partner finding. Teacher education institutions and schools could further support implementation by creating repositories of ready-to-use activities and materials, offering mentorship opportunities, and facilitating collaboration between schools and

international partners. Such support would align with participants' willingness to conduct VE projects, provided that they are supported throughout the process.

Future research should move beyond teachers' perceptions and examine concrete classroom practices and learning outcomes in VE projects. In particular, studies exploring pupils' experiences, task effectiveness, and long-term impacts on intercultural and communicative competence would provide valuable insights into the educational potential of VE. We strongly believe that VE should become more prominent in teaching and teacher education, as it contributes not only to the development of language and digital skills but also to intercultural awareness, open-mindedness, and flexibility – skills that learners will need in the future to navigate increasingly interconnected environments.

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