

Wilde, Stephanie; Kremer, H.-Hugo; Stelzer, Jana

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Crossing Borders, Opening Minds? VET Tandem Partnerships in a Dutch- German Cross-Border Region

Stephanie Wilde*, H.-Hugo Kremer, Jana Stelzer

*Universität Paderborn, Fakultät für Wirtschaftswissenschaften, Lehrstuhl für Wirtschafts- und
Berufspädagogik, Warburger Str. 100, 33098 Paderborn, Germany*

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Abstract

Purpose: The purpose of this paper is to discuss the potential contribution of cross-border vocational education and training (VET) exchange partnerships within the context of tandem exchanges between VET institutions in the Rhine-Waal Euregio region in the Netherlands and Germany. These tandem exchanges offer learners and teachers in VET the opportunity to develop new perspectives on their training pathways, the labour market and learning approaches in each context respectively. This occurs through the discussion and debate ignited by the exchanges, as well as through visits to relevant VET institutions, companies and other institutions in the border region.

Approach: The approach taken in the paper uses both documentary analysis of a long-standing cross-border VET network, Ler(n)ende Euregio, as well as an interview-based study. Group interviews were held with teachers and school leadership teams from three tandem partnerships in North-Rhine Westphalia and the Netherlands, namely in the Rhine-Waal border region. The interviews revealed aspects of the motivation for the tandems and the challenges involved.

Findings: The findings showed that learning opportunities for the students and the teachers are considerable and include: Gaining an insight into their vocational training pathway in the neighbouring country, and thereby reflecting on their own VET experience; developing

*Corresponding author: stephanie.wilde@uni-paderborn.de



an understanding of the cross-border labour market and developing additional personal, social, intercultural and linguistic competences. This occurs particularly because of the switch between host and guest modes. Further, such exchanges can play a role in tackling prejudice in both cross-border contexts. Challenges faced by the tandem partnerships include: Maintaining continuity in the participating VET institutions and the teachers responsible for the exchanges and overcoming logistical and bureaucratic hurdles. Greater recognition of cross-border exchanges through certification for learners and dedicated time on the curriculum could be positive steps.

Conclusion: The paper concludes that tandem partnerships in the Dutch-German border region offer a sustainable and accessible addition to the palette of mobilities available to learners and, significantly, also to teachers, in VET. The potential, particularly for learners who may not otherwise travel abroad during their training, is considerable, and is arguably relevant to other cross-border regions and international contexts.

Keywords: Vocational Education and Training, VET, Mobility, Tandem Exchange, Cross-Border Region, Euregio Germany, the Netherlands

1 Introduction: Research Context, Outline of the Project Network in the Dutch-German Cross-Border Region and International Relevance

The research context of this study includes the role of exchanges in VET as an instrument to further develop teaching and learning in VET institutions, awareness of the respective teachers' and learners' contexts and institutions (in the roles of both host and guest) and the particular significance of the geographical, economic, political and historical region of the Rhine-Waal cross-border region.

This particular research context serves as an example of approaches to cross-border exchanges between VET institutions that can operate in an accessible and cost-effective way. As such, this study advocates the development of cross-border exchange that is also international, through this example between the Netherlands and Germany.

This border region incorporates a broad range of similarities and differences in the local economy, logistical arrangements and the labour market. These similarities and differences within the VET provision are relevant even if VET institutions are a mere 20 kilometres apart and operate within a similar economic context (such as, for example, logistical operations along the Rhine, horticultural conditions and seasons that mirror each other and a retail market that operates across the border). The institutional differences in terms of curriculum management, time management and the institutional focus placed upon international,

regional and local exchange can be very challenging and therefore solution-oriented, flexible approaches are required.

The research study took place within the broader Learning Euregio Network, funded by INTERREG. This Network provides an overarching framework for cross-border activities within VET in the Netherlands and Germany and, as well as the exchanges, includes skills competitions, support for developing occupation-related language skills, producing authorised descriptions of learning pathways in the cross-border contexts and forging links between VET institutions.

A full description and analysis of the characteristics, history, challenges and potential of the VET systems in the Netherlands and in Germany would go far beyond the scope of this article. Cedefop provides a substantial level of detail in its publications on the Netherlands and Germany, respectively (Hippach-Schneider & Huismann, 2019; Smulders et al., 2019).

However, two key differences are pivotal to this study; namely, firstly, that the Dutch system is considerably more school-based than the German system, which includes the dual system of apprenticeship, meaning that learners divide their time between school-based learning and in-company learning and, secondly, that the VET institutions in the Netherlands tend to cater to a much larger number of learners than the VET institutions in Germany, which are proportionally usually smaller and cater to a local area.

The Learning Euregio Network offers an example of gathering expertise and support for the additional work involved for VET institutions when organising international and regional exchange. The school project managers that are part of the Learning Euregio Network can offer advice and guidance to VET institutions starting new exchanges, including providing expertise in 'matching' suitable institutions to each other, linguistic support, as well as support when difficulties arise. This framework approach could also operate positively in other cross-border and international contexts. Further, the Learning Euregio Network also aims to create sustainable partnerships between schools, so that these can continue autonomously and without the dedicated support of the Network. This is crucial as the Network certainly cannot exist indefinitely.

The study reported in this paper is of international relevance because of the high priority placed on international exchange in VET. Quantitative data are readily accessible, particularly on the ERASMUS programme, for example. However, more details about the exchange experience, for both learners and teachers, are needed. The fact that young people and teachers undertake these exchanges, internationally and regionally, does not alone provide evidence for the value of those exchanges. This paper endeavours to explore the perspectives of learners, teachers and school leadership team members in the tandem exchanges, as a contribution to the international field of exchange in VET.

The research reported on did not use a pre-existing conceptual framework, in order to allow the particularities of the exchanges under review to come to the fore. The cross-border

and euregional nature of the context of the research reveals potential for exchange in comparable border regions and Euregios. The focus of the research was on the particular nature of the mobilities as represented by the tandem exchanges between vocational schools in this Dutch-German border region. The context was an interplay between regional, European, cross-border, and international contexts, as well as fine-grained understandings of the three educational pathways involved (namely, early years, horticulture and retail). The research presented is exploratory in nature and emphasises some key challenges, as well as the potential, of cross-border exchange in VET.

1.1 Cross-Border Co-Operation in VET in the Euregio Rhine-Waal

This paper reports on research in the aforementioned Rhine-Waal cross-border region between Germany (specifically, the federal state of North-Rhine Westphalia) and the Netherlands. This area, the 'Euregio Rhine-Waal', is one of five such designated border regions with a shared German and Dutch border. *Euregio* is a political construct within the European Union, derived from the two words 'European' and 'region', of which there are many more examples (Bundeszentrale für politische Bildung, 2020). As well as this political construct, the context of the tandem exchanges is socio-economic, geographical, logistical and cultural in nature.

The Learning Euregio Network receives the majority of its funding from the INTERREG programme. The management team is relatively small (it has consisted mostly of a management team of two to three staff), with a strong link to the regional education and training centre, *regionaal opleidingscentrum*, (ROC) in Nijmegen, where the Network has office and storage space, for example. In addition, a member of staff has been seconded for a considerable period of time from a regional government in Germany in order to provide VET institution liaison. The budget available to the Network has varied across different points of the Network's lifetime.

The programme has potentially become overly reliant on a single source of funding, namely the INTERREG programme, which funded the previous five phases of the Learning Euregio Network in the past and is also funding the current, and sixth, phase of the Network. During these phases, the proportion of the funding contributed by INTERREG, and the absolute amounts, varied according to the components of the Learning Euregio Network and the external expertise involved. As such, the INTERREG support has continued across the multi-phase Learning Euregio Network. It is true to say that the Network relies on the INTERREG funding, at least to some degree, and that the sustainability of the Learning Euregio Network could be compromised in the event of a shift of focus of INTERREG away from cross-border mobilities. The Rhine-Waal Euregio region is characterised by its logistical significance, because of the presence of the Rhine, Waal and Maas rivers, as well as the important harbour at

Duisburg and the metropolitan centre of Düsseldorf, with its international airport. The most important cities in the Dutch border region are Arnhem and Nijmegen. The border region features some 300,000 companies (2014), as well as almost 10,000 (2016) employees who commute from Germany to their workplace in the Netherlands, which increased from just over 5,000 in 2014 (Euregio, 2017, 2019).

The main sectors in the Dutch area of the Rhine-Waal Euregio include: Health, energy, the food sector, as well as the caring professions, tourism, forestry, landscape gardening and IT (Euregio Rhein-Waal/GrenzInfoPunkt, 2019). The main sectors in the German area of the Rhine-Waal Euregio are affected by the ongoing restructuring in the area following the reduction in dominance of the mining industries, and include logistics, the service industries and financial industries, for example (Euregio Rhein-Waal/GrenzInfoPunkt, 2019). Further details of the economic structure and the cross-border demand for skilled workers in the region and the cross-border mobility of labour are included in the main report on this research (Kremer et al., 2022).

The tandem partnerships in this study share exchange at a number of different levels, namely: The institutional level, the level of the learning and occupational pathway (each tandem operates within a particular vocational training pathway), the personal level and also, although not in all cases, at the level of the whole class at each institution. The tandem partnerships are within the wider context of the Learning Euregio Network (*Netzwerk Ler(n)ende Euregio*). In addition, the tandem approach refers to the joint organisation of the exchange by the teachers, school leadership teams and designated staff for international exchange (such as the role of international co-ordinator at VET institutions, which exists in the vocational schools in the Netherlands but not in North-Rhine Westphalia).

This paper focuses on three tandem partnerships within the Learning Euregio Network, the beginnings of which go back to the late 1990s. The Learning Euregio Network comprises the tandem partnerships, regular skills competitions (particularly for the retail training pathway) and strategic discussions, discourse and publications (e.g., Hövels & Kutscha, 2001) related to the border region. This paper outlines the potential contribution of the tandem exchanges to the underlying aims of the Learning Euregio Network through creating and increasing sustainable contact and communication between students and teachers in the border region and enhancing the appeal of the cross-border labour market (see European and Regional Affairs Consultants (ERAC) & Dieter Meyer Consulting (MCON), 2019; Euregio, 2017, 2019; Euregio Rhein-Waal/GrenzInfoPunkt, 2019, for further details of the socio-economic context and the cross-border labour market). The potential learning benefits for students include improving their vocational, inter-cultural and linguistic competences (see Kristensen, 2001, 2004; Wordelmann, 2009).

One of the potentially untapped sources of expertise in the area of cross-border VET exchanges is co-operation with other cross-border regions and Euregios. This includes work

undertaken in the Dutch-German Rhine-Maas Euregio, as well as, amongst others, the border region between Germany, Poland and the Czech Republic, which has been in existence since 1991. It is, coincidentally, like the Rhine-Waal and the Rhine-Maas Euregios, also named after the main river in the region, namely Neisse-Nisa-Nysa (see Albrecht & Eberhardt, 2005; Gellrich, 2009). Gellrich (2009) emphasises the significant role of inter-cultural learning processes and argues that border regions have a potentially instrumental role to play in developing cross-border co-operation in VET, citing their specific role within the potential acquisition of intercultural and linguistic competences, as well as their role in providing opportunities to experience the respective VET systems and create co-operative cross-border structures (see also Vogelsang et al., 2021).

Further, considerations of 'border futures' are relevant to cross-border VET co-operation. In the so-called Greater Region of Saarland, Lorraine, Luxembourg, Rhineland Palatinate and the Walloon region, there were 267,330 cross-border employees (who entered the respective region in order to work) in 2022, representing an increase of 3.6% on the previous year. Luxemburg received 216,490 cross-border employees, the Walloon Region received 32,698, Saarland 14,036 and Rhineland-Palatinate 4,102 respectively (Großregion, 2023). Dörrenbächer (2018) states that only Switzerland has more cross-border employees than this region, which accounts for one quarter of cross-border employees in the European Union. Additional cross-border co-operations involving Germany, not restricted to VET-related work, are outlined in Jurczek (2009) and contextualised within geographical and historical parameters. Jurczek also indicates that this cross-border work is not without critical issues and controversies.

One example in VET is that of exchanges between France and Germany in the ProTandem project, which has supported 110,000 cross-border visits in vocational education and training for young people and adults, with approximately 3,000 participants annually from more than 50 occupations (Großregion, n.d.). These numbers are impressive, but Dörrenbächer (2018) nonetheless indicates that challenges for cross-border VET exchange include: A lack of linguistic knowledge, a lack of interest in cross-border VET, as well as a lack of knowledge or even prejudice and unrealistic expectations, on the part of both companies as well as the trainees at different stages of their training.

1.2 The Context: VET and Socio-Economic Characteristics of the Euregio Rhine-Waal

The research study took place within a wider co-operation, involving the Learning Euregio Network, the participating VET institutions in Germany and the Netherlands, the Learning Euregio Network project management team, the department responsible for international exchange in VET at the North-Rhine Westphalia regional government in Düsseldorf and the

research team. Plenary planning meetings took place with these participants, which allowed discussions, conversations and debate to unfold.

A comprehensive project report describes the development of the Learning Euregio Network, its history and its milestones, insights from participating students and progress made with digital approaches to mobilities (Kremer et al., 2022), with reference to the summary report on the Learning Euregio Network by Keppels et al. (2019).

Through analysis of interviews with participating teachers, the paper identifies potential gains from relatively short and regionally-based tandem exchanges, as compared, for example, to the longer stays, which are often further afield, associated with Erasmus+ (Nationale Agentur beim BIBB, 2018, 2019). The VET institutions in the Netherlands (*regionaal opleidingscentra* or regional training centres, ROC), as the name implies, are regional institutions and are therefore mostly larger in terms of student numbers than the often more locally-oriented *Berufskolleg* in North-Rhine Westphalia. The Netherlands has the ROC training colleges as well as agricultural training colleges (AOCs) (Duo, 2022) which offer, compared with the training pathway of the dual system in Germany, more school-based training pathways (Duo, 2020).

One relevant difference between the VET institutions in the two countries is that there is an 'international coordinator' position in the Netherlands which does not exist in the same way in North-Rhine Westphalia. Two of the ROCs represented in the tandems feature a participant who fulfils this role. They do not teach at the ROCs but rather are responsible for the international activities, including Erasmus+, the Euregio activities and other international work. In the context of the Euregio Learning Network they support their teaching colleagues with the organisation, planning and carrying out of the exchange, and also perform some of the bureaucratic tasks for the tandem exchanges.

2 Research Questions, Research Approach and Data Collection

The research questions focus on the characteristics of the tandems and aim to describe, analyse and interpret them, and to consider their transferability to other contexts.

- How fruitful is the cross-border context for mobilities in VET?
- What is the potential contribution of this relatively short-term mobility?
- What are the limitations of the Learning Euregio Network's approach to mobility?
- How transferable is the experience of the Learning Euregio Network?

In order to attempt to answer these questions, the project team turned first to the documentary archive of the Learning Euregio Network. The documents were mostly available online and included administrative reports, funding applications, final reports on funding phases and other miscellaneous reports. They painted a certain picture of the development of the Network across the twenty years of its existence, which, however, remained at a rather bureaucratic level. Research into the effects of this Dutch-German cross-border collaboration, and the experiences of teachers and learners, over time was limited, certainly in part due to the ongoing time and financial pressure of securing the Learning Euregio Network's future at regular intervals. The documentary analysis aimed to create a coherent chronology of the Learning Euregio Network, using the available project reports, funding applications and grey literature. The project produced a narrative description of the development of the Learning Euregio Network, which highlighted the milestones achieved and the challenges faced by the Network (see Kremer et al., 2022, Chapter 3, for further details). This 'baseline' provided the starting point for the research on the tandem exchanges, which included interviews with teachers and school leadership teams.

The research team accessed the documents and reports that form part of the output of the Learning Euregio Network. These are available online at: <http://www.lerende-euregio.com/>, <https://taal-verbindt.com/de/over-taal-verbindt/> and <https://www.kbanijmegen.nl/tijdlijn-LE.htm>. The first website is the main portal of the Learning Euregio Network, with reports on its activities, history and development, as well as details of the authorised descriptions of particular training pathways for use in the cross-border region and guidance for learning German as an additional language within the work context. The second website has a specific focus on language-related issues within the Euregio Learning Network, including translation support and resources for particular occupations. The third website provides a chronological timeline of the Learning Euregio Network, prepared by the KBA (Knowledge Centre for Vocational Training and the Labour Market, n.d.) in Nijmegen, the Netherlands. It details the phases of the project, grant applications and milestones achieved.

These sources were collected, summarised and written up as brief reports. As the Learning Euregio Network had already been in operation for approximately 20 years, it was possible to identify patterns and key events in the Network's previous history. These key events include submissions to INTERREG (applications and final reports) and conferences. The emerging patterns showed the pressures of (re-)applying for funding, as well as the frustration of the initial motivation to involve employers and businesses in the cross-border region more actively. This frustration continued across the duration of the Learning Euregio Network as the active involvement of these groups remained limited. Documentary analysis of this kind necessarily reveals a partial picture, and therefore this phase also included preparatory and informative interviews with three experts from the management team in the Learning Euregio Network (July and August 2019). These discussions identified relevant literature (including grey

literature), in order to outline the history of the Network and the tandem exchanges. Two interviews took place in person whilst one was a telephone interview, and initial questions and thematic areas relevant to the Learning Euregio Network were discussed. These discussions supported the ensuing development of the interview schedule for the group interviews with teachers, school leadership members and international co-ordinators.

Thus, phase one of the data collection involved documentary analysis and expert interviews. Following this, in phase two, plenary discussions took place with the six participating tandem institutions, the project management team and the research team.¹ These discussions created a forum for teachers to share ideas and uncertainties and gave the research team the opportunity to build initial contacts with the participants at the VET institutions. The sampling for this study was carried out in co-operation with the Euregio project management team and, as such, represents a convenience sample.

The interview schedule at each of the tandem exchanges included questions under the following headings:

- Questions related to the co-operation between the two tandem VET institutions hitherto,
- Reflections on the future co-operation between the two tandem VET institutions,
- Questions related to the preparation, implementation and reflection of the mobilities,
- Opportunities and difficulties related to the planned co-operation.

The interview schedule allowed for open discussion and a joint description of the tandem exchanges by the representatives from the Dutch and German VET institutions respectively. The interviews were transcribed and analysed by the research team, leading to the identification of categories, and of key discussion passages that were cited in the Open Access publication (Kremer et al., 2022). At least two people from the project identified categories and sub-categories, in order to assess the replication of the analysis process. The categories developed as the analysis progressed.

The group interviews presented an opportunity for the research team to observe the interactions between the tandem participants, and to recognise the key issues and questions that they mentioned. Some of the challenges of group interviews arose, such as the research team's questions becoming lost in the lively discussion and particular participants either being extremely reserved or so vocal that others were unable to speak for a certain time. These challenges had been discussed in advance, and the team used strategies such

¹ 09.09.2019 in Kleve; 04.03.2020 in Kleve; digital plenary meetings on 22.06.2020 and 05.10.2020.

as follow-up questions for quieter participants, and requesting a return to the interview schedule at certain points.

During the analysis, broad categories were initially identified, as well as additional sub-categories. This process was carried out independently by at least two members of the research team, in order to cross reference the categories and ensure that they were coherent. Short summaries of the tandem frameworks and the processes involved in them, based on the data, were shared with the participating teachers for validation and amendment and to serve as a catalyst for further discussion.² As such, the data analysis employed an approach of recurring dialogue, in order to discuss and validate understandings and positions. Furthermore, the exchanges with the Learning Euregio Network project management team in Nijmegen were essential to ensure appropriate sensitivity to the particular characteristics of the VET institutions and the wider context in the Netherlands. These exchanges provided context for the interpretation of the early findings.

The research team aimed to follow the planning, carrying out and reflection of the tandem exchange visits with a combination of non-participant observation and follow-up communication with the participants. This element could not occur because of the restrictions of the COVID-19 pandemic. However, communication continued throughout the period, via email and video calls.

Additional interviews took place with selected teaching staff on the topic of digital teaching approaches at the VET institutions and the potential of digital support tools for learners involved in exchanges with other countries (Kremer et al., 2022). Further, online interviews were held with learners who had already participated in a tandem exchange, or who were planning to do so, in order to capture the learners' perspectives (Kremer et al., 2022).³

The following categories and sub-categories emerged from the analysis of the data. There is inevitably some overlap.

Table 1: Overview of Categories

Category	Sub-categories (examples)
Motivation for Cross-Border Co-operation in VET	<ul style="list-style-type: none"> - Gaining knowledge about the neighbouring country and drawing comparisons - Broadening horizons (applies to learners and teachers) - Developing competences (vocational, social, intercultural, linguistic) - Intrinsic interest - Contribution to democratic thinking and action, reducing prejudice

² These group interviews took place in November and December 2019, followed by the validation exchanges.

³ These took place between April and June 2020 and November and December 2020 respectively, and are mentioned here as part of the research process, but are not fully reported in this paper for reasons of space.

Difficulties and Challenges	<ul style="list-style-type: none"> – Logistical planning – The scale of the bureaucracy required (including securing insurance and persuading training firms in Germany to release their apprentices for the duration of the exchange) – Possible personnel changes in the participating tandem schools – Financial challenges and budgeting restrictions – Time constraints within the curriculum, which reduce the potential for retrospective documenting and reflecting on the visit
Potential of the Tandems	<ul style="list-style-type: none"> – Offering opportunities to learners who may not otherwise be able to or choose to travel – Wider impact on the VET institution, beyond the immediate participants, through dissemination of the learning experience in presentations and publications
Additional Possibilities	<ul style="list-style-type: none"> – Greater availability of certificates for the learners to document their experience – Potential transferability to other training pathways, VET institutions and Euregios (Dutch-German and other)

In the next section, the formats of the respective tandems are outlined, before the paper continues with a presentation of the analysis of the tandem exchanges, their potential and the associated challenges.

2.1 A Cross-Border Exchange Format: Tandems

The tandems in this study link the training pathways and future professional goals of the learners and refer to co-operation between VET institutions in the Dutch-German border region. They are 'tandem' in nature since each tandem includes two institutions, with a shared training pathway. The target groups are the learners in the respective training pathways, and also the teachers, who work together to organise, implement and execute the respective tandem exchanges. The tandems differ from, for example, peer learning activities based on two learners working together, as is featured, for example, in tandems for learning languages (Elo & Pörn, 2018), in that the unit of the tandem is the VET institution itself, with the featured pathway. The exchanges last between one day, in each direction, (with a whole class group) and five days, in each direction (with a smaller number of up to five students). The details of the tandem exchanges are elaborated in full in the open access publication on this research (Kremer et al., 2022). The following table summarises their key features.

Table 2: Key Features of the Tandem Partnerships

	Participating Training Pathways	Type of Mobility	Participating Student Numbers	Duration of the Tandem Exchange	Participating Teachers and International Co-ordinators	Distance between Institutions
Tandem A	Retail and e-commerce.	'Buddy' approach.	Four students from each institution.	Two five-day visits.	Four teachers from each institution, including an international co-ordinator.	100 km

Tandem B	Horticulture.	Day-long two-way exchanges with relevant visits to VET institutions and companies.	Whole classes with a total of approximately 50 students.	Two one-day visits.	Three teachers at the German VET institution and the international co-ordinator at the Dutch VET institution.	20 km
Tandem C	Early years education.	Traditional exchange visits.	Ten students from the Dutch VET institution and 15 from the German VET institution.	Two visits of between two and four days.	Two teachers from the German VET institution and one from the Dutch VET institution.	125 km

The following section describes the tandems in more detail.

Tandem A

The two VET institutions in Tandem A (retail and e-commerce) co-operate in the context of the vocational competitions for retail and other training pathways held regularly in the town of Kalkar. As such, there is a foundation of mutual understanding. The participating teachers are committed to the exchange and both institutions have the support of the school leadership. The training-related relevance of the tandem is linked to the importance of cross-border retail and commercial activity in the Rhine-Waal region. In terms of the processes of the students' reflection on the exchange, the participating teachers in the tandem mention positive experience with Apps such as Facebook and WhatsApp.

Tandem B

Tandem B (horticulture) features two institutions which had co-operated for some years, but the tandem in this study involves different members of staff, following personnel changes. This means that one of the key features of the tandems – teachers who are committed to preparing, carrying out and reflecting on the visit with the learners – does not yet have a mutual tradition, but commitment to the project is very high, according to the participants in the interview. For this tandem, subject relevance has a high priority in terms of the need for organising company visits that are suitable for the stage of the horticultural curriculum upon which the learners are currently working. This is based upon seasonal issues and the availability of companies for visits. The duration of the tandem exchange is one day. Within this one day, according to the narratives from the participating teachers and the international coordinator, it is possible to achieve, at least in part, some of the goals of visits of longer duration, such as discovering a new perspective on one's training programme, for example.

Tandem C

Tandem C (early years education) has a tradition of mutual visits, and the two teachers who are most actively involved in organising, carrying out and reflecting upon the exchange have been working together for some years. This signals their commitment to the exchange. This

is the only tandem of the three in which the Dutch institution is not supported by an international coordinator. The visits during the exchange are challenging to organise, since large groups of visitors are not always appropriate in pre-school educational institutions. This tandem is open to new approaches for the (digital) documentation of the visits.

Pre-Requisites for the Tandem Exchanges

Pre-requisites for the tandems, according to the interviews, include: Clear communication pathways between the institutions; long-term, sustainable co-operation between the teachers involved; identifying learner groups with shared training-related interests and gaining the support of the senior leadership teams. The logistical organisation represents the next phase.

The salient aspects of the tandems in this study are: The shared training pathway, which allows for shared VET interests; mutual exchange regarding the understanding of each occupation in each respective context; the switch between 'guest' and 'host' institution and the long-term co-operation between teachers in each institution. In addition, the tandem exchange operates at the level of the respective country, region, language and culture, as well as within the border region of the Euregio Rhine-Waal.

The relatively short duration of the tandem exchanges, as well as their geographical proximity, are arguably favourable, as the exchanges can be organised sustainably and at relatively low cost without the expense and environmental impact of flights, long distance travel or costly accommodation. However, precisely these features can be viewed as drawbacks by students, as some may perceive the exchanges as lacking a genuine 'overseas' experience. The next section outlines the findings from the interviews.

3 Findings

These findings are based on group interviews held with the participating teachers in Tandems A, B and C, respectively. The research team translated the quotations from the original German into English, unless otherwise stated. The citations refer to the respective Tandem (A, B or C), the VET institution (ROC in the Netherlands, Berufskolleg or BK in Germany), the gender (F or M) of the participant and the line numbers of the transcriptions.

3.1 Motivation for the Tandems

The tandems entail a considerable amount of additional work for the participating teachers. The reasons behind their motivation emerged in the interviews as: Providing young people with an opportunity to broaden their horizons and to gain insights into their partner VET institution; furthering the students' self-awareness; supporting students to begin to understand and question the similarities and differences between the VET institutions in

the Netherlands and North-Rhine Westphalia, respectively; providing, particularly for those students who, for personal and family reasons, may not have a great deal of opportunity to travel, an educational and occupationally relevant travel experience through the tandems. As such, these reasons focus on the students. However, the teachers in the interviews also mentioned intrinsic factors within their motivation. For example, it is bound up with their professional identity and self-understanding, as expressed by this teacher from Tandem A:

This is really in the foreground: Self-realisation, taking opportunities, creating opportunities for our students. Because many of them have already been written off. (...) And, after all, this is our educational task, it is in the school regulations that we should provide perspectives, make opportunities possible, support the students, and Euregio is there for us. (Tandem A, BK, F1: 583-589, all quotations translated from the original German by the authors, unless otherwise stated)

The focus on creating opportunity is linked with the characteristics of the participating students:

And here, in the Ruhr region in particular, we have a high proportion of students who come from other countries and we can on no account underestimate that a high proportion of our students have not really been anywhere else at all. (Tandem A, BK, F1: 577-579)

In order to place this comment into context, the figures for students from other countries at *Berufskollegs* in North-Rhine Westphalia have risen from a proportion of 9.0% in 2013 to 12.8% and 13.5% in 2017 and 2020, respectively, whilst the figures for the Ruhr region are slightly higher at 10.8% (2013), 14.9% (2017) and 15.2% (2020) (Euler, 2022, p. 37, Fig. 3.3-2).

The particular socio-economic and historical nature of the Ruhr region in Germany means that there is no direct comparison with the border region with the Netherlands. However, recent statistical reports on education in the Netherlands show increasing inequality. For example, students in VET from non-Western backgrounds have an 11.5% lower success rate in finding a training place or job after completion (Cedefop, 2018). As such, providing cross-border experience of VET has a potentially significant role to play, particularly for young people for whom travel and an experience of VET in another country would otherwise be far less accessible.

An additional intrinsic motivation for the teachers is that they themselves enjoy the tandem exchange: "We also do it because we enjoy it ourselves. Because we can see that the students like it and that they benefit from it" (Tandem B, BK, F1: 417-418). A positive working context within the tandem means that the 'fun factor' is present:

As long as the fun factor is there one is more likely to do it than if one thinks 'Oh, no'. So, at the beginning of a project like this there is always the question: 'Will it work out with the project partner?'. (Tandem A, BK, F1: 265-267)

The international coordinator in Tandem A also commented on their motivation:

Why do we do this? Because we have in our vision, our mission that we want to educate our students to be good Fachkräfte (skilled employees). Also, world citizens. (...) And we're only this small part, and we're living in this border area, so this is a wonderful opportunity to at least get to know your neighbours. So, this is more and more important in the Netherlands now, our government also supports that and, well, not always with money, but okay. Each group of teachers has its team plan, and they have to make a plan for the next year. And international organisation is a fixed chapter in that. (Tandem A, ROC, M1: 506-514, English in the original, all other quotes have been translated from the German, unless stated)

In addition, the international coordinator from Tandem A emphasised the role that international experiences can play in countering political extremism and supporting democratic processes and thinking amongst the students (see du Bois-Reymond, 1998):

Both your and our political systems have a few populist parties now. I think if students have had this experience they will hopefully not vote for these parties because they are not so afraid of their neighbours and will be more understanding. (Tandem A, ROC, M1: 518-521, English in the original, all other quotes have been translated from the German, unless stated)

According to the international co-ordinator from Tandem B, the value-added of the exchange is not limited to the direct participants, but the whole VET institution can also benefit. The role of the co-ordinator in this context is to disseminate the learning and the experiences from the tandem.

But we have to share this, not only with the students who took part in the exchange, but also with the other students. What actually happens? And then with colleagues and with the whole organisation? Because there are only a few people who are present who have international contacts and the others ask: 'Yes, they are going to Germany: Why are they going to Germany?' Yes, I get that comment. 'Why do you put so much energy into Germany?'. (Tandem B, ROC, M1: 552-558, English in the original)

This whole-school approach was also mentioned by a teacher at Tandem C: "We experience that, in lessons, they report back from this trip to the other students who weren't there" (Tandem C, BK, F2: 771-772). The motivation at school level is closely linked to the value placed upon it by the school leadership.

So, that means that it is a topic at the learning pathway conference, it is an important date in the calendar and our head always makes sure that he comes to visit (the tandem); it is highly valued at the school. (Tandem C, BK, F2: 698-699).

The motivation to organise and participate in a tandem is thus related to the anticipated vocational, intercultural, institutional and personal experiences.

3.2 Vocational Relevance

Relevance to the specific training pathway within the VET institutions and to the students' chosen area of future work was of prime importance to the interviewees from the tandems, as well as potential growth opportunities for students in terms of developing their intercultural, personal and linguistic competences.

The participating teachers in Tandem A (retail and-commerce) commented on the particular vocational relevance of this training pathway in the border region, as there is a strong consumer culture of buying goods and services 'across the border'. The comparisons that emerged through the exchange provided stimuli regarding the similarities and differences between decision-making processes and buying cultures in the region. In addition, a teacher from the VET institution in Germany emphasised useful pedagogical exchanges regarding digital possibilities, such as Apps, and remarked on the perception that the VET institutions in the Netherlands are more advanced in this area. This was viewed as particularly useful for the aspects of training related to e-commerce.

In Tandem B (horticulture) teachers commented that comparisons between company visits as part of the exchange proved particularly fruitful in terms of identifying differences in their size and focus. Within Tandem B's horticulture training pathway, the tandem offers a valuable opportunity, according to the teachers, to gain knowledge about how the companies on both sides of the border operate.

Of course, they get to know this horticultural region better. (...) If one takes a look at the map to see where the Dutch region is, just beyond the border, which makes this whole region in Europe so special, then they are quite surprised. (Tandem B, BK, F3: 217-223)

However, the teachers also pointed out that, since the horticultural border region shares the same seasonal activities, the students did not necessarily experience new processes. The teachers at the VET institution in Germany commented that the content of the tandem exchange also has to fit in with their teaching and learning concept:

We have different subject areas in horticulture. For example, ornamental horticulture, vegetable cultivation, gardening and landscape gardening (...). But in the Netherlands, they don't have the same system. (Tandem B, BK, F3: 91-98)

In Tandem C (early years education) the teachers argued that the differences in the organisation of pre-school learning in each country led to valuable learning processes and discussions regarding comparing and contrasting the two contexts.

3.3 Developing Additional Competences

Teachers viewed additional competences supported by the tandem partnership experience positively, albeit as secondary to directly relevant vocational learning. A teacher from Tandem B's VET institution in Germany summarises this point:

The students initially see the value-added regarding vocational knowledge, and that goes for the companies too. Everything else that happens is a by-product, that is not the main focus for the students. (Tandem B, BK, F3: 1757-1760)

Positive effects on additional competences should not be underestimated, however. For example, beyond knowledge and experience gained in aspects relevant to their training pathway, the Tandem B teacher group, which also included a member of the school leadership team, reflected on the ways in which the tandem exchange broadened the students' horizons and also led them to question certain prejudices and tacit knowledge about the border region.

So, it is definitely not only about subject knowledge, it is also about taking down the borders in one's head. Every year when I announce that we will soon be doing an exchange with a school in the Netherlands, some students complain. (...) Then we have to really motivate them because they have major reservations. And when the day has gone by, I can then establish that, for one thing, our students are proud of what they have achieved and (...) that some prejudices have been overcome. (Tandem B, BK, F3: 184-192)

As such, the aims of the tandem explicitly include identifying differences and similarities in the border region and also providing an opportunity for the students to become more sensitive to cultural nuances.

Basically, we want to highlight various different points, guided by the teachers. First of all, we said, the general cultural characteristics, then the different company cultures and then, where are there perhaps differences in the education system? The students are not meant to prepare a lecture on this, which they present in front of the class, but it was important to us, we want to have a learning outcome. (Tandem A, BK, M2: 808-814)

The teachers from the tandem VET institutions stated that their students faced coping with an unfamiliar linguistic environment and sought solutions including choosing English as a common language and communicating 'with their hands and feet' (see Jentges & Sars, 2019). Negotiating the unfamiliar was deemed to be a beneficial learning experience. In addition, the different habits of each border region context were reportedly a subject of discussion amongst the students, including eating habits and subject options at the respective VET institutions.

Furthermore, the intention is for the students to explore the training and working contexts in the other country, reflecting on conversations during the exchange and also on their own training pathway, chosen occupation and their own culture. This shared experience also applies, of course, to the accompanying teachers, who create a co-operation which can make good use of the strengths of the respective institutions. For example, all three tandems mentioned that the VET institutions in the Netherlands are further advanced in terms of digital teaching approaches than the institutions in Germany. This provides an opportunity for detailed exchange on this topic. Within this context, the availability of certificates could play a valuable role in validating this cross-border experience and providing additional motivation for the students.

So, I think, this should somehow go onto their final reports, or there should be a certificate that they took part, so that they can show: 'I was interested in taking part in this project. And I believe that we could get the practically-oriented learning site on board rather more'. (Tandem C, ROC, F1: 334-338)

In addition to certification, the sustainability of the tandem exchanges could also be supported through their inclusion in curriculum planning, thus offering regularity and an institutional status for the exchanges.

The good thing about sustainability, as you are saying, sustainability means that if a programme runs for several years, one can include it on the timetable. So, all schools want that, in fact. So, if we do this next year, and again and again and again, then it becomes part of the timetable and it is much better integrated into the other learning content in the school's curriculum. (Tandem C, BK, M2: 152-156)

3.4 The Role of Companies and Other Institutions in the Border Region

The participants in the group interviews argued that the part played by companies and other institutions in the tandems is pivotal, since they perceived a visit to the neighbouring country to be rather limited if it only consisted of a visit to the VET institution. All the interview participants argued that it is of value to the students to gain insights into the working context of their training pathway in the other country.

The context differs somewhat between the VET institutions in each country. For the tandem partners in Germany, for example, one of the teachers' initial tasks is to convince the employers of their trainees within the dual system of training to release them for the duration of the exchange trip, since they would otherwise be at their training company for those days. This does not apply to the VET institutions in the Netherlands as they are more likely to be school-based (Busse et al., 2016; Teerling, n.d.).

The tandem exchanges operate within two systems that have significant differences from each other. However, the findings of the study show that it is possible for schools to co-operate with teach other even within the context of varying demands on the teachers and the students and, in the case of Germany, the companies and the trainers. This is a fundamental challenge shown by differing structures, actors and areas of responsibility, notwithstanding the areas of overlap. The differences and the challenges are precisely where learning may occur in terms of experiencing different approaches to teaching and learning and preparing for specific occupations. Therefore, differences between the two VET systems can be viewed as an opportunity to learn, rather than an obstacle to exchange and this has implications for the co-operation between the VET institutions, regarding both the conceptualisation of vocational education and training and the practical decision-making regarding the organisation of visits within the curricular, examination and company-based contexts. This difference also represents an opportunity for discussion, comparison and understanding of the two respective VET systems. For both contexts, the teachers argued, it is essential to convince the companies and institutions of the value of inviting the bilateral student groups to visit their premises and ask questions, ideally offering an ongoing commitment for future visits. A teacher in Tandem B comments:

So, it is definitely a very important aspect for us to have the support of the companies. We are a European School and we initiate various European learning situations, for example. That is very good but, within the dual system, it always has to fit in with the ideas of the companies. (Tandem B, BK, F3: 99-104)

There is also a perception of added value for companies if the students return with new knowledge. The international co-ordinator for Tandem B argues:

What can you bring back into the company? Because you are my trainee, that is how they view it. And the best thing is when they react positively: I am proud of my trainee, who works with me the whole year, but has now been abroad for a couple of weeks or for a day or two – and as a company we have gained from this. (Tandem B, ROC, M1: 616-621, English in the original)

3.5 Comparisons: VET, Daily Routines, Training Pathways and the Labour Market: "Well, They are Really not Much Different From us!" (BK 2, F1: 512)

The teachers reported that students quickly began to draw comparisons between the two countries in the border region, and also to reflect upon their own contexts in new ways. In Tandem B, the teachers from the VET institution in Germany reflected upon the differences regarding the school organisation in the Netherlands: For example, that teachers and students use computers more in class, that the lesson design is different and that teachers

function more as companions, guides, or advisers. The teachers from the institution in the Netherlands in Tandem B commented that their students were: "(...) Amazed that the students put their hands up and participate in the lesson. That they even have homework and that they have a pen, the German students, and they still have real books" (Tandem B, BK, F1: 499-502). Issues to do with daily life and routines were also mentioned in the tandem discussions, including the food available in the school canteens, for example. Similarities and shared experiences also arose:

In the end we try to find more general topics. So we don't only speak about the topic of school, and the students reach the conclusion quite quickly in the evaluation that "they are not very different from us": They watch this film or that film too, we watch that on Netflix, they listen to the same music and they also go out at the weekend to party. (Tandem B, BK, F1: 510-514)

Another effect of the tandem visit is: "And we have noticed that the exchange has the effect that our students get to know other school systems and also get along with the other students" (Tandem C, ROC, F1: 20-21).

The teachers commented on the possible shift in perspective for students participating in the tandems, as they switch roles between guest and host and notice particular issues in both cross-border contexts. The teachers argued that the students learn to compare, to identify similarities and differences and to ask further questions.

Teachers from the VET institutions added that the students gain a more nuanced understanding of the cross-border labour market:

We think it is really important, particularly for trainees in the border region, to see, how do the employers beyond the border operate? What is perhaps important for me if I want to gain a foothold in the labour market in Germany, in the Netherlands? So, it is really important for us to say, we want to create an understanding of how our European partners work, in inverted commas? What is it like there at work, what is private life like? What kind of differences and kind of similarities are there and can we benefit from them? (Tandem A, BK, M2: 176-184)

The international coordinator from Tandem A also commented on the potential for the tandem experience to expand the labour market for students:

And also, maybe as a next step, then, the labour market opens up for your neighbours. I mean, I can understand that these companies all think, oh, okay, these are Germans or these are Niederländer, and if they once had experience it's actually quite good for both, for students but also for the employees, that hopefully they would open up a bit. And, of course, the international experience for our students that they grow and see more things. (Tandem A, ROC, M1: 185-189, English in the original)

The gaining of new perspectives applies to the teachers as well as the students, of course. A teacher from Tandem A commented on her own learning process and her comments were

echoed by the other participants, both from her VET institution in Germany and from the partner VET institution in the Netherlands. She emphasised the need to leave her own 'comfort zone', particularly as this is what she required of her students.

We teachers also said that it is our task to continue to educate ourselves interculturally. Therefore, we consciously planned meetings so that we teachers had to work together, and also together with the students, because it is interesting that it is always only the students that are talked about. It is just as much a learning curve for us teachers, and that is the good thing about Euregio. In the years that I have worked on this I have learned so much and that is great. (Tandem A, BK, F1: 417-424)

Finally, the experience and the outcomes of the tandems can perhaps best be summarised as 'this shared experience':

Yes, so, this shared experience. Yesterday we sang in the bus together, and then we sang again together. We like the idea of Euregio, in this tandem, because we have a different culture, a different education system, we have a different labour market, we have different forms of vocational training, but it is not too different. (Tandem C, BK: 39-44)

4 Conclusions

This section reflects on the research questions outlined at the beginning of this paper and suggests explorative responses.

How Fruitful is the Cross-Border Context for Mobilities in VET?

The cross-border context can be fruitful for mobilities in VET because the geographical distances are relatively short and the exchanges can be organised with reasonably straightforward logistical planning. In addition, through the contacts created and the visits to companies, the cross-border area may become relevant to students when considering opportunities on the labour market.

The emphasis on developing competence and reflecting on the training pathway is significant in these tandems, and these areas are also embedded in a parallel process of raising the learners' awareness of cultural and linguistic factors within the border region. Learners and teachers notice differences and similarities regarding the organisation of the school environment, the interchange between teachers and learners, differences in the infrastructure of the local area and even differences in eating habits. Regarding linguistic factors, the guest and the host roles heighten sensitivity to the significance of language, for example. Developing strategies for coping without a shared language provides a learning experience.

The tandems within the Euregio Learning Network offer a range of exchange and mobility activities that provide an additional useful variant to other available mobilities, such as Erasmus+ (see NABIBB, 2019, for an overview of the Erasmus+ programme in VET in Germany).

What is the Potential Contribution of a Relatively Short-Term Mobility?

The exchanges are shorter than, for example, a standard Erasmus+ exchange, which for a long time had a minimum duration of ten days. However, the interviews revealed that discourse was generated, comparisons were drawn and new insights were gained in the shorter exchanges of between two one-day and two five-day exchanges. The accessibility and short duration of the Learning Euregio Network tandems can be positive, since it may facilitate participation by learners who might otherwise not take part in an international exchange. This is linked with the relatively short duration of the tandem visits, and the fact that the costs can be kept to a reasonable minimum. Further, the majority of the organisation and logistical planning is undertaken by the teachers involved in the tandems, which enhances the likelihood of participation by learners who might be discouraged by bureaucratic and logistical hurdles.

What are the Challenges of the Learning Euregio Network's Approach to Mobility?

The challenges of this approach lie, to a certain extent, in its reliance on the motivation and hard work of a small number of teachers. Responding to changes in the continuity of participating staff is challenging. These teachers provide a stable foundation and communication structure based on mutual trust and shared understandings of the organisation and aims of the tandem. If there are changes in the staff, because of illness, a change of school or retirement, the fragility of the sustainability of the tandem can be exposed. For this reason, it is essential that the tandem participants ensure that the exchange is not reliant on one individual, for example.

A further limitation lies in the fact that embedding the exchanges in the curricular planning of the institutions can be complex and bureaucratic. Sharing experiences and solutions within the wider network is important in this context.

In addition, the tandems involve logistical challenges, such as finding a suitable date for the tandem visits and taking into consideration the varying school holiday and examination dates in both countries. In addition, the transport for the tandem has to be carefully considered in terms of time and costs, and the same applies to potential accommodation solutions.

Further, within the context of the dual system of training in Germany, the trainers in the company or institution where the learners spend the majority of their training need to be convinced of the value of the tandem exchange, as the trainee will be absent from their working context for the duration of the tandem exchange.

Also, teachers commented that not all students perceive the border region to be particularly attractive, as it is seen to be too close and too familiar: "Germany is not really abroad" (Tandem B, ROC, M1: 565-566). Therefore, the potential logistical and other advantages of conducting an exchange within a border region can be undermined by the perception that this region does not have a great deal of interest to offer. In the interviews, this factor was mentioned as a challenge regarding recruiting for the exchange but was not relevant beyond that.

The teachers identified documenting and reflecting on the tandem exchange as a particular challenge and stated that since the time within the curriculum was limited they were not able to discuss the exchange in as much depth as was intended and warranted.

How Transferable is the Experience of the Learning Euregio Network?

Arguably, aspects of the experience of the Learning Euregio Network can be usefully transferred to other border regions. This includes: The decision to include students from the same or similar training pathways in the exchange, recognising the need for effective planning based on mutual trust and sharing the potential and the pitfalls of cross-border exchanges. The tandem partnerships are supported by the wider context of the Learning Euregio Network, which provides information, experience, contacts and also shared events, such as skills competitions. A similar overarching organisation, based in the relevant border region, could provide invaluable support.

The involvement of both teachers and learners in the tandem partnerships (rather than just one of these groups) enhances the likelihood of the internationalisation of the home institution, since dissemination activities provide input and information to the wider institution. Further, teachers may refer to the tandem experience in their teaching, which can then provide input to learners who did not participate themselves. This principle could be transferred to other border regions.

The tandem exchanges operate within a wider context, as indicated in the following graphic:

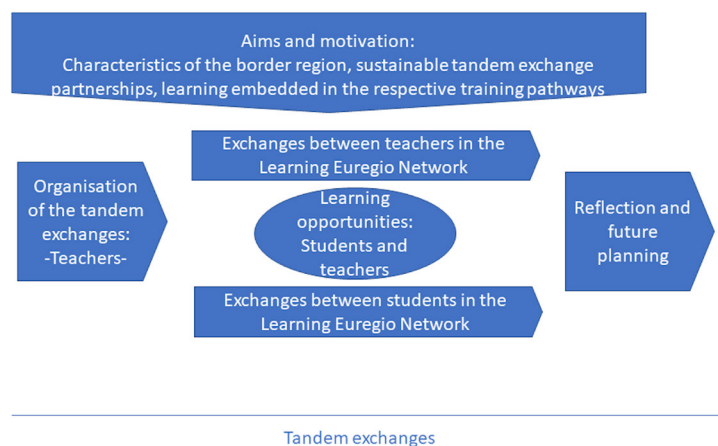


Figure 1: The Context of the Tandem Exchanges in the Euregio Rhine-Waal Region

Figure 1 indicates how the exchange between the institutions is embedded in the wider aims of the Learning Euregio Network, and that the learning opportunities are available to both the students and the teachers.

In summary, supportive factors for organising cross-border exchanges between VET institutions include:

- A shared training pathway;
- A long-term approach to the tandems;
- Inter-institutional partnerships that provide continuity and shared understandings;
- Support from senior leadership for the tandems;
- The relatively short duration of the mobilities can provide an opportunity to students who might otherwise have limited travel options;
- The tandems offer an opportunity for raising awareness of cultural and linguistic factors, which can play an important role in the learners' future employment considerations;
- The wider Learning Euregio Network is a supportive factor, through mutual interests and shared goals and events (such as skills competitions).
- In conjunction with these supportive factors, tandem exchanges between VET institutions have the potential to cross borders and to open minds.

5 Limitations and Outlook

This study was conducted within a context of innovation and change, which meant that constraints were inevitable. However, this can be viewed as both a strength and a weakness because the study contributed to developing a deeper understanding of the challenges of implementing new forms of VET exchange in the Rhine-Waal border region, whilst at the same time recognising and confronting difficulties and problematic issues within the context of cross-border VET exchange.

The limitations of this work include, firstly, that it focuses on a relatively small number of schools that cooperate with each other in VET exchanges. As such it provides certain indications of the potential of exchanges in the Euregio Rhine-Waal but is certainly not a generalisable or replicable study. Secondly, it was not possible to complete the full scope of the project because of the Covid-19 pandemic. Further interviews could not take place and planned exchanges between teachers and learners at the six schools had to be cancelled.

However, the study indicates the potential of VET exchanges in the Euregio Rhine-Waal and other cross-border contexts. The sustainability of the exchanges (through consistent participation of teachers and school leadership teams) needs to be adequately supported to guarantee continuity and sustainability. The accessibility of the exchanges (particularly for learners who might not be used to travelling to the respective other country) also needs to be enshrined in the aims and values of the project.

VET in co-operation with regional and cross-border development provides an opportunity for intercultural and occupation-based exchange, involving both students and teachers. The tandem exchanges reported in this paper take place within a context of varying characteristics in terms of VET structures, labour market characteristics and various bureaucratic requirements. This provides a learning opportunity in the cross-border region through tandem exchange and mobilities. Other cross-border regions feature a different combination of characteristics, and each context requires a particular approach to mobilities and exchanges, sensitive to each of the cross-border regions. As such, this paper does not make any claim that the VET exchanges in the cross-border Rhine-Waal region can be replicated in other cross-border regions. However, the Learning Euregio Network may provide appropriate questions for considering or developing VET exchange in cross-border regions.

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Ethics Statement

The research reported here was carried out according to the ethical research principles outlined in IJRNET's ethical statement. The research participants consented to the recording of the interviews and the anonymous presentation of the findings.

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Biographical Notes

H.- Hugo Kremer, Dr, is Professor of Business and Human Resource Education at the University of Paderborn, with a particular emphasis on the didactic use of digital media and on continuing education. His research interests include innovation in vocational education and training (VET), digital processes of teaching and learning in vocational schools and inclusion at vocational schools in Germany.

Jana Stelzer, Dr, previously worked as a researcher at the Department of Business and Human Resource Education at the University of Paderborn. Her doctoral work examines digital teaching and learning processes in vocational schools.

Stephanie Wilde, Dr, works as a researcher at the Department of Business and Human Resource Education at the University of Paderborn. Her research interests lie in comparative vocational education and training, intercultural competence and the role of language(s).