Education in the North

UNIVERSITY OF ABERDEEN

ARTICLE

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Assel Csonka-Stambekova, stambekova@caesar.elte.hu

Eötvös Loránd University, Hungary

DOI Number: https://doi.org/10.26203/vd7r-pr55

To cite this article: Csonka-Stambekova, A. (2022). Teachers' perceptions on teacher effectiveness in remote foreign language teaching and learning. *Education in the North*, **29**(1) pp. 38-60.

Teachers' perceptions on teacher effectiveness in remote foreign language teaching and learning

Assel Csonka-Stambekova, stambekova@caesar.elte.hu

Eötvös Loránd University, Hungary

Abstract

This qualitative case study presents two on-site English teachers' and two remote English teachers' perspectives of a remote English teaching project on teacher effectiveness carried out in two public bilingual schools in western Kazakhstan. The study aimed to explore how remote foreign language teaching and learning in public schools in a developing country enhances teacher effectiveness. Three major results of the study show that: a) remote foreign language teaching challenges on-site and remote foreign language teachers' pedagogical content knowledge; b) remote foreign language teaching calls for teacher technology change to foster teacher effectiveness; c) remote foreign language teaching and learning via videoconferencing empowers teachers to voice and shifts teaching and learning paradigm. Implications of these findings suggest that teacher education programs at different levels need to support teachers and schools in offering progressive teaching approaches developed for virtual learning environments. Schools and teachers need to bolster research-based models of team teaching in virtual learning environments.

Keywords: remote foreign language teaching and learning, teacher effectiveness, pedagogical content knowledge, semi-structured interviews, teacher technology change

Introduction

In 2020 the world because of COVID-19 closed schools for over a billion students (World Bank, 2020) forcing many governments and schools to introduce emergent remote teaching (Hodges, Moore, Lockee, Trust and Bond, 2020) and learning (RTL). Naturally, many nations had to face the issues of RTL. While an extensive body of research knowledge suggests an impact of teacher effectiveness (TE) (Darling-Hammond, 2000; McCaffrey, Lockwood, Koretz and Hamilton, 2003; Sanders and Rivers, 1996; Wenglinsky, 2002) on student learning and achievement, mainly in the developed world, the forcing actions of school closures of the global emergency (Sohrabi, *et al*., 2020) dramatically increased attention of researchers, practitioners and policy makers to understand how RTL affects TE in online settings.

Traditionally, a concept of TE has been studied in specific content areas (English language arts, science, social studies and mathematics) in K-12 in various settings and with diverse populations (Murnane and Steele, 2007; Marzano, 2003; Stronge and Hindman, 2003). A vast repertoire of teacher variables such as teacher qualifications, behaviours and practices (Goe, 2007), pedagogical and content knowledge (Shulman, 1986), planning and preparing (Marzano, 2013), teaching skills, classroom management and implementing instruction (Stronge and Hindman, 2003), collegiality and professionalism (Marzano, 2007) to name a few have been at the core of several TE models (Danielson, 2013, Goe, 2007; Marzano, 2007).

At present, available research and classroom practice demonstrate that teaching remotely requires a distinct set of online teaching skills, online teacher competencies and roles (Anderson, Rourke, Garrison and Archer, 2001; Berge and Collins, 2000; Graham, Cagiltay, Lim, Craner and Duffy, 2001; Guasch, Alvarez and Espasa, 2010). However, teachers rely on using traditional educational practices in the virtual learning environment (VLE) (Kreber and Kanuka, 2006). While the available research and best practices relating to teaching online has grown, online language teaching and learning does not benefit much because the content of language teacher training did not go beyond instructional and software-specific skills (Compton, 2009) and the new teaching skills for online language teaching are different from teaching other subjects online (Hampel and Stickler, 2005). Hampel and Stickler (2005) emphasise the importance of these new teaching skills for online language teaching at the lower level where there is a 'need to focus on the form on interaction as well as the content' (p.312). To date, there is a dearth of research about online language teaching and learning and TE in VLE internationally. This study is therefore an effort to fill the gap by conceptualising the understanding of TE in remote foreign language teaching and learning (RFLTL) in the context of a developing country in several ways. First, it focuses on the most recent theoretical frameworks on TE published since 2000. Second, it groups previous RTL studies into a framework for evaluating TE in connection with the framework of the present study. Third, it adds value into understanding how the teacher community of both on-site and remote English language teachers conceptualise TE. As COVID-19 has changed conventional understanding of TE in brick-and-mortar classrooms, we need a comprehensive view of how technology enables teachers to be effective in teaching and learning.

The rationale for this case study is an attempt to deepen understanding of this complex phenomenon as TE by exploring on-site and remote English teachers' perceptions of TE in RFLTL in Kazakhstan. This case study, carried out in two public schools, is a part of a larger ongoing mixed methods study (2018-2021) conducted by the author. The overarching aim of the project is to develop a comprehensive understanding of what role teachers and families play in supporting student learning and maximising TE with the help of education technologies in RFLTL. In the present study, the author reports findings from the first year of the project (2018-2019) and seeks to answer the research question: What are on-site English teachers' and remote English teachers' views on how teaching and learning English remotely impacts teacher effectiveness?

Previous research on teacher effectiveness and remote teaching and learning

The complexity of TE construct concerns many researchers (Rice, 2003; Wayne and Youngs, 2003). Several models have been developed for TE, although TE researchers continue struggling with a view on developing a general model for a systematic evaluation of TE (Cameron, 1980; Creemers and Kyriakides, 2008; Campbell, Kyriakides, Muijs and Robinson, 2004). TE field recognises Carroll's model (1963), Creemers' model (1994) and Cheng and Tsui (1999). The first model, limited to instructions, clarity of instruction and matching task to the student, considered the factors of time, quantity and quality of instruction as important variables. Creemers (1994) distinguished the multilevel nature of the phenomenon where the outcomes result as combined effects of the levels (Campbell, Kyriakides, Muijs and Robinson, 2004; Scheerens, 1992; Scheerens and Bosker, 1997). The model shows how each level influences student achievement. Finally, the contribution of Cheng and Tsui (1999) to TE research is in offering a differentiated seven-model concept of TE. In short, these models illustrate that no single approach to the evaluation of effectiveness is appropriate in all circumstances or for all teachers.

Many existing models since 2000s overlap (Danielson, 2013; Marzano, 2013), measure student gains by standardised achievement tests (Goe, 2007), encompass teacher quality and teaching quality (Akiba, LeTendre and Scribner, 2007). Some researchers consider definitions of TE and its characteristics questionable (Schrag, 2003). Despite the lack of conclusive conceptualisation of TE among researchers, the current study approaches the concept of TE from a well-known framework for effective teaching (Danielson, 2013) as a theoretical and analytical framework. The framework not only offers theoretical and methodological tools to understand the art and science of teaching (Danielson, 2007, p.7), it also includes an evaluation rubric to guide for further improvement and communicates with the larger community of teacher-practitioners, parents, school board members and principals for teacher performance evaluation (Table 1). The present study uses Domain I Planning and Preparation in understanding teachers' perceptions of the phenomenon. This theoretical framework was also chosen with the purpose to test it in a different context because it has mainly been used in the Western studies and in a different teaching and learning situation.

Table 1: Framework for Effective Teaching (Danielson, 2013)

Framework for effective teaching, Danielson (2013)

Domain I: Planning and Preparation

Component I a: Demonstrating Knowledge of Content and Pedagogy
- Knowledge of content and the structure of the discipline
- Knowledge of prerequisite relationships
- Knowledge of content-related pedagogy

Component I b: Demonstrating Knowledge of Students
- Knowledge of child and adolescent development
- Knowledge of the learning process
- Knowledge of students' skills, knowledge, and language proficiency
- Knowledge of students' interests and cultural heritage
- Knowledge of students' special needs

Component I c: Setting Instructional Outcomes
- Value, sequence, and alignment
- Clarity
- Balance
- Suitability for diverse learners

Component I d: Demonstrating Knowledge of Resources
- Resources for classroom use
- Resources to extend content knowledge and pedagogy
- Resources for students

Component I e: Designing Coherent Instruction
- Learning activities
- Instructional materials and resources
- Instructional groups
- Lesson and unit structure

Component I f: Designing Student Assessment
- Congruence with instructional outcomes
- Criteria and standards
- Design of formative assessments
- Use for planning

Domain II: The Classroom Environment

Component II a: Creating an Environment of Respect and Rapport
- Teacher interaction with students
- Student interactions with other students

Component II b: Establishing a Culture for Learning
- Importance of the content
- Expectations for learning and achievement
- Student pride in work

Component II c: Managing Classroom Procedures
- Management of instructional groups
- Management of transitions
- Management of materials and supplies
- Performance of noninstructional duties
- Supervision of volunteers and paraprofessionals

Component II d: Managing Student Behaviour
- Expectations
- Monitoring of student behaviour
- Response to student misbehaviour

Component II e: Organising Physical Space
- Safety and accessibility
- Arrangement of furniture and use of physical resources

Framework for effective teaching, Danielson (2013)

Domain III: Instruction

Component III a: Communicating with Students
- Expectations for learning
- Directions and procedures
- Explanations of content
- Use of oral and written language

Component III b: Using Questioning and Discussion Techniques
- Quality of questions
- Discussion techniques
- Student participation

Component III c: Engaging Students in Learning
- Activities and assignments
- Grouping of students
- Instructional materials and resources
- Structure and pacing

Component III d: Using Assessment in Instruction
- Assessment criteria
- Monitoring of student learning
- Feedback to students
- Student self-assessment and monitoring of progress

Component III e: Demonstrating Flexibility and Responsiveness
- Lessin adjustments
- Response to students
- Persistence

Domain IV: Professional Responsibilities

Component IV a: Reflecting on Teaching
- Accuracy
- Use in future teaching

Component IV b: Maintaining Accurate Records
- Student completion of assignments
- Student progress in learning
- Noninstructional records

Component IV c: Communicating with Families
- Information about the instructional program
- Information about individual students
- Engagement of families in the instructional program

Component IV d: Participating in a Professional Community
- Relationships with colleagues
- Involvement in a culture of professional inquiry
- Service to the school
- Participation in school and district projects

Component IV e: Growing and Developing Professionally
- Enhancement of content knowledge and pedagogical skill
- Receptivity to feedback from colleagues
- Service to the profession

Component IV f: Showing Professionalism
- Integrity and ethical conduct
- Service to students
- Advocacy
- Decision making
- Compliance with school and district regulations

However, the framework (Danielson, 2013) has narrow applicability to special educational needs (SEN) students (Morris-Mathews, Stark, Jones, Brownell and Bell, 2020). Another limitation of this framework is in the subjective interpretation by various stakeholders. For example, Roegman, Goodwin, Reed and Scott-McLaughlin II (2016) study reports about statistically significant variation in teacher evaluation scores measured by individual supervisors' rates in teacher programs. This variation raises questions about framework's reliability and validity of the results for the purposes of evaluating teachers. Little scientific evidence has been presented to support the premises of Danielson's (2013) framework in VLEs. Most of today's teachers are seen as digital immigrants (Prensky, 2004) with regards to their

experience and use of information-communication technologies (ICT). Although Danielson (2013) acknowledges teachers' access to ICT in Domain II, Concept II a (see Figure 1), the framework does not provide pedagogical support to teachers in how to implement technology into 21st century teaching and learning. In this respect, computer-assisted language learning (CALL), technology-enhancing language learning (TELL) research suggest that a) technology integration can be only fully understood when teachers' beliefs are taken into account (Sang, Valcke, van Braak and Tondeur, 2010); b) teachers rely on using traditional educational practices in VLE (Kreber and Kanuka, 2006); c) English language practitioners, applied linguists, CALL researchers endorse technology use for an integrated English language teaching and learning (Battro, 2004; Beckett and Miller, 2006; Kern and Warschauer, 2000; Lacina, 2005; Landerholm, Karr and Mushi, 2000) and as a foreign language (Madhavaiah, Nagaraju and Peter, 2013). The framework would benefit more if it elaborated Domains I, II and III by including aspects of technology enabling teaching and learning.

Context of the study

Two on-site school English teachers and two remote English teachers participated in a three-year remote English language teaching and learning project from two urban schools in western Kazakhstan and in this study. The author of the article was one of these remote teachers and in this study, she took a researcher role. The study utilised purposeful and maximum variation sampling to include different participants' age, discipline and relation to the project (Table 2).

Table 2: participants' demographic characteristics

Pseudonym	Laura	Assem	Sabina	Alina
Role	On-site teacher	On-site teacher	Remote teacher	Remote teacher
Initial language teacher education	No	Yes	No	Yes
CELTA holder	No	No	Yes	Yes
DELTA holder	No	No	Yes	Yes
IHCYL holder	No	No	Yes	No
Master' s degree in education/ in linguistics/ TESOL	No	No	No	Yes
Years of teaching experience		15	8	7
Grade taught	5, 6	5, 6	8	8

To be able to participate in the three-year project, school-participants were selected based on their reported English teacher shortage, scarcity of ICT (absence of Internet connection, lack of laptops or tablets for teachers and pupils) and no prior involvement in RTL. On-site English schoolteachers and remote English teachers were required to have a language teaching degree and be Kazakhstani citizens. While on-site teachers were fluent in both Kazakh and Russian, their English was primarily pre-intermediate according to Common European Framework of Languages (CEFR). Remote teachers,

on the contrary, possessed an advanced level of English while their Kazakh was between pre-intermediate and native. Another distinctive characteristic of on-site school English teachers at the time of the study was that they taught English in bilingual schools with Kazakh and Russian languages of instruction in either Kazakh, or Russian or mixing both educating mono- and bilingual (Kazakh and/or Russian) children from low-income extended families or single-parent families. However, the remote teachers were selected to the project having taught international students, students of mixed abilities and mixed age groups, holders of CELTA, DELTA and IHCYL professional certifications.

Participants' previous experience with technology in remote, i.e., virtual synchronous teaching was limited to the extent of using applications such as Kahoot! (free-game based learning platform), MS Office (Power Point presentations, WORD documents mainly), Google products such as Google Docs or Google Earth and Interactive White Board (IWB), a touch-sensitive electronic presentation device. In terms of a more extended professional development, the education vendor X of the project provided remote teachers with a two-weeks online training on technology in October 2018. Sessions of the training included how to teach remotely with the help of ICT, some aspects of pedagogical knowledge (Shulman, 1986) for VLE, technological knowledge (Mishra and Koehler, 2006) and how to use *Zoom* for remote English language teaching purposes. The vendor also provided remote teachers with corporate unlimited *Zoom* access in comparison to a free version with a 40-minute use. Additionally, participating schools in the project received funding from an external corporate partner Y and project management from the education vendor X.

Ethics

The researcher's Institutional Ethics Committee approved a permission to conduct this study. The participants emailed back to the researcher digitally signed consent forms in one language convenient for the participants (Kazakh, Russian, or English). The participants learnt about issues of confidentiality and anonymisation (Piper and Simons, 2005, p.57). They were also notified that the data they share would be used for further publications and provide valuable information for the doctoral thesis. The study uses pseudonyms in Results section. Participants were offered pre-publication access to the study in a form of a powerpoint presentation highlighting the findings and concluding remarks.

Researcher reflexivity

Researcher's role in this study was complex. She was an engaged participant (Dreyer, 1998) trying to maintain the equality in the research process between the researcher, i.e., herself and the researched, to empower teachers to become co-constructors of their own meanings and to expand the knowledge of the researched (p.9). By choosing this stance, she aimed to distance herself from the participants and their actions (Patton, 2002) while studying participants' social worlds. It was clear from the inception of the research that she would not have been able to enter the research field with a blank mind as the subject under study is her professional research interest and a focus of her doctorate. To ensure the minimal bias in the research, she kept a research diary documenting particular settings related to TE in RFLTL, planning how to sample the participants, adjusting her focus toward listening to teachers' voices on the challenges and 'living through' shifts in their teaching and learning paradigms. Although she was

aware of the inevitable subjectivity of her notes and she accepted it, she did not however want to be a detached observer (Dreyer, 1998, p.16). She also tried to be cautious not to face any ethical danger to her identity as the researcher in the project. The social and cultural context of Kazakhstani public school teachers was familiar to her and she paid respect to the age, gender and hierarchy differences among her participants.

Data collection and analysis

The author conducted semi-structured interviews in Kazakh, Russian and English that lasted between 48 and 60 minutes remotely via *Zoom* because of the long distances. The aim of interviewing participants using semi-structured interview protocol was to provide flexibility to the researcher (Savin-Baden and Tombs, 2017, p.160) and to collect several themes relevant to the existing theory applied in the study for data analysis.

Interview questions covered the following six categories with a specific focus on the instruction domain (Danielson, 2013) and added technology domain: (1) background information; (2) attributes to TE and participants' reasoning; (3) the role of a teacher and of an effective teacher, expected learning outcomes and English teaching strategies; (4) preferred approaches to teaching: on-site teacher's and remote teacher's role and teaching goals in the classroom and beyond, student's role, teaching procedures, teaching a mixed-abilities class, challenges and successes in adapting to a new format of teaching and learning with both categories of teachers and students; (5) how remote teachers selected English teaching materials, teaching aids, instructional technologies, types of assessments and what role on-site teachers have in this process; (6) reasons for the necessity for integrating technology in English instruction.

In addition, the researcher also took extensive field notes of remote lessons she taught after teachers' permission to reflect-in-action (Schon, 1987) on valuable teaching methods, student language acquisition benefits and to improve her classroom practice further.

The data were analysed in four steps between 2019 and 2021. In the first stage the researcher read the data to assign codes to various excerpts using open coding. Then the researcher organised codes into categories employing Domain I Planning and Preparation (Danielson, 2013) as a unit of analysis. Codes that were similar to each other were grouped together following Graneheim and Lundman (2004). In the next round of coding the researcher re-examined the codes and categories to re-analyse, find new patterns and to arrive at a new concept. At this stage the researcher used theoretical coding and thematic analysis coding (Braun and Clarke, 2006) as two guiding approaches. Similar themes were merged and some other themes that derived during open coding stage were removed as they did not have enough data to back them up.

Triangulation of the qualitative data source, the literature and the research methods (Miles and Huberman,1994) established data quality. The study assured data quality using back translation and content analysis of the open-ended interview data with the help of three independent trilingual educators. In addition, the researcher reached out to the participants for member checking. Only two

participants responded with feedback clarifying how their pedagogical content knowledge was improved and how knowledge of students helped them design a personalised approach to students in RFLTL.

Results

This section presents the following themes as results of the study: Pedagogical Content Knowledge (PCK), Knowledge of Students and Resources and Teacher Technology Change (Table 3)

Table 3: Identified themes with supporting quotes from participants

Theme	Examples of extracts within the theme
Pedagogical Content Knowledge	'…I think my pupils became more interested in English. They are interested in speaking English. They're very communicative at lessons. Before they didn't see a lesson... spoken in English but now they saw what English lesson is, now from the beginning to the end... they can understand English, real English…' (Laura, on-site teacher 1, March 30th, 2019) '…I can have an impact on how effective my teaching skills are. The behaviours like involving all pupils in the lesson, using differentiation to challenge all pupils in the class. Using a variety of learning methods, like teaching methods from the upgrade to the national curriculum program, a variety of questioning, to probe pupils' knowledge or understanding…' (Almira, on-site teacher 2, April 2nd, 2019)
Knowledge of Students and Resources	'…It's all about learners, we are here to teach them. Each one of them has his strengths or weaknesses, his pace of learning...' (Sabina, remote teacher 2, March 16th, 2019) '…Computer literacy is very important here, very. You need to know how to use the Internet, Zoom, Power point, because you are teaching online you have to rely on online approaches…' (Sabina, remote teacher 2, March 16th, 2019)
Teacher Technology Change	'… In the beginning of the project it took me 5 hours to prepare (for an observational lesson). Yeah, it's time-consuming. So probably remote lessons are more digital, you just have to use more visuals, animation, sound effects' (Alina, remote teacher 1, March 21st, 2019) '…Mobility, number one. I can teach whether I am at home, outside, in the office..' (Sabina, remote teacher 2, March 16th, 2019)

Pedagogical Content Knowledge

The overall response to the research question was closely aligned with the constructs in the Framework (Danielson, 2013). Participants viewed TE as having a plan of the content to teach so students learn. Both remote and on-site teachers covered various aspects of instructional planning, highlighting the need to understand the content and pedagogy and a deep understanding how to design the content for students to learn. Understanding content and pedagogy was seen not only in having lesson plans and being ready for lessons but how it was assessed as well.

One of the differences viewed among on-site and remote teachers' responses was in how they perceive presenting new knowledge and skills to students. While remote teachers spoke about eliciting students' prior knowledge, connecting new knowledge to students' background knowledge so the students were able to make connections and develop their own understanding, on-site teachers had a different view. One of them explained the benefit of using a translation method when students had troubles in understanding new knowledge, for example, vocabulary. Another teacher said she learnt from her remote teacher-colleague various strategies that teacher applied at the lesson helped students follow the lesson from simple to complex. This remote English teaching and learning project helped her see

how a language teaching can be engaging and communicative for a teacher and developmental for her students.

In public schools participating in the present study lack of highly qualified ESL teachers is very common. Poor on-site English teacher pedagogy and low attention paid to it played a critical role in creating inadequate foreign language immersion for students. A number of other contextual factors, for example, students' demographics, on-site English teachers' capacities and qualifications, level of teachers' autonomy, school funding, teacher professional development to name a few mattered, as evidenced by interviews with on-site and remote teachers.

Moving on, remote teachers asserted how in the beginning of the project they had to deal with challenges in adapting their pedagogy to the online format. However, six months later, from the launch date of the project, they changed their views. Particularly, they emphasised how RFLTL expanded their repertoire of pedagogical skills and content knowledge:

> "Involvement in the project was demanding, especially in the beginning when I did not know how to operate *Zoom*, how to create slides, to write descriptors. It was a pleasant challenge to me and I felt thrilled to be a part of this project." (Alina, remote teacher 1, March 21st, 2019)

On-site teachers, however, were disappointed that technical difficulties such as lagging Internet connection, power shortage in winter season and lack of digital devices for students in the classroom did not provide a truly authentic experience of remote learning. They saw a lack of access to online dictionaries during classwork as a demotivating aspect in language learning. As a result, one of the on-site teachers solved this issue by asking students to either use their smartphones in the classroom, use dictionaries brought from home or borrowed from a school library. According to on-site English teachers, these factors of technological infrastructure and support influenced classroom settings, students' and teachers' motivation and teachers' instructional models. It also interfered with their private lives as occasionally they had to test technology during holidays or during lunch time. Similarly, remote teachers suffered from technical issues such as power cuts in winter or weak Internet connection and not being able to connect to students and on-site teachers to teach a lesson. As a result, they reflected with disappointment that all they had to do was to wait for the next lesson to occur.

Knowledge of Students and Resources

All four participants had a three-folded view on TE. First, they all began with a plan, a syllabus, a compass that guides both the teacher and the students. Second, they all emphasised that it was vital for the teacher to know her students. This knowledge of students varied from having an emotional connection with students by building rapport with them to knowing their developmental paths, their family background and how family supports students' learning. Thirdly, important part of their answers included serving as an enabler or an inspirer to students. By being genuinely truly engaged in students' learning and to show the care to students was the last part of commonalities in on-site and remote teachers' perceptions on the phenomenon. However, remote teachers viewed teachers' ability to connect with students emotionally as teacher's personal attributes, her likeability, being authentic and

open whereas on-site teachers viewed it as teaching skills, as facilitating and giving instructions in achieving students' goals.

When speaking about knowing students, two remote teachers shared how challenging it was to design a lesson especially in the beginning having poor knowledge of students, their interests and skills. This gap in remote teachers' knowledge of whom they were to teach and how to teach was in the air and both took various decisions. One of the remote teachers conducted a Needs Analysis survey using pictures to help students rate topics they'd like to learn, e.g. I like, I quite like, I love it. Another teacher started her lessons with a small talk with the on-site teacher in the presence of students in the classroom, she particularly paid attention to call the on-site teacher by name regularly to bridge the gap of an outsider at the beginning of a school year.

On-site teachers viewed planning and preparation as teacher's intentions for a lesson reflected in the written lesson plan and the activities supporting the cognitive challenges. In their views, classroom activities as well as homework assignments should be intellectually engaging to students. However, teachers needed to be aware of students' access to ICT resources at home.

Another important aspect of students' adaptation to RFLTL was in their motivation to study and student achievement. One on-site teacher compared her students from grades 5 - 6 and noticed that highly motivated learners with previous experience of using gadgets for games and communication with their peers took more advantages in expanding their online learning opportunities.

> "My fifth-grade students, who are in this project, are more open to communicate, they are less shy and grade six are more open to create something…making videos …writing laws…" (Laura, on-site teacher 1, March 30th, 2019)

The next construct relating to teachers' demonstrating knowledge of resources generated many differences between on-site and remote teachers. On-site teachers used additional physical resources related to content and pedagogy. For instance, one on-site teacher decorated her classroom with British cultural symbols such as Big Ben, the Union Jack. She also used to invite native English speakers as guests to her lessons so students could practice the language. Another teacher decorated her classroom with English grammar rules to scaffold students' grammar assignments. Remote teachers, because of their virtual presence in the classroom, used a lot of free Web resources such as online games to practice the target language, Google Earth to facilitate students' learning about global citizenship, the environment and giving directions in big cities. As for organising physical space, field notes provided a graphic representation of classrooms with on-site English teachers' and remote English teachers (Figure 1).

Although remote teachers described the hurdles, they encountered in the beginning of the project learning how to integrate pedagogy and technology during the learning process, both on-site teachers and remote teachers found remote teaching via videoconferencing convenient, meeting their needs and supportive.

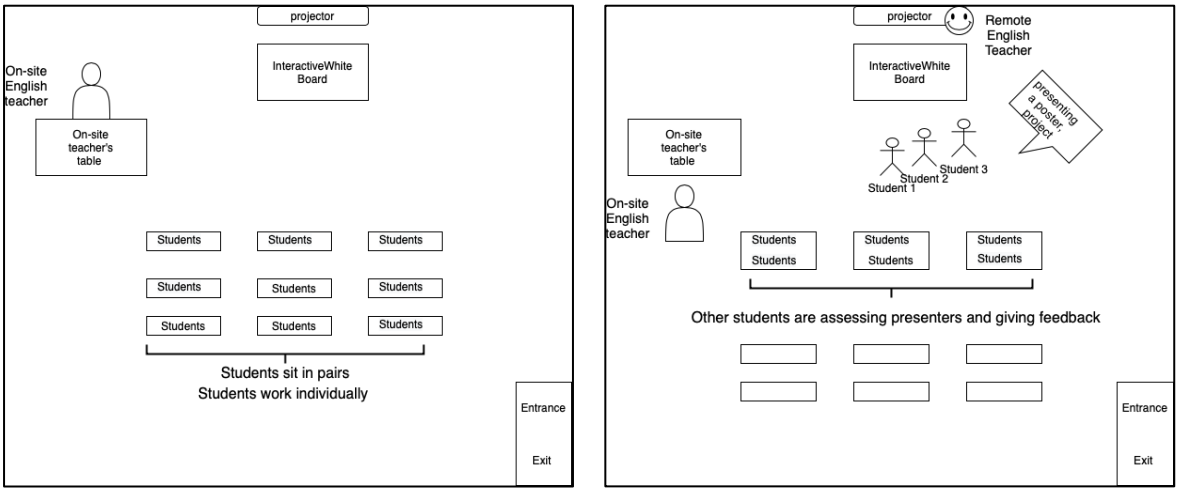

Figure 1: Sketches of English lessons taught by on-site English teachers and remote English teachers

Summing up, the participants expressed that their own learning how to use technology led to participants' increased beliefs and use of technology beyond lesson planning and preparation. Namely, they mentioned applications such as Kahoot! for learner assessment, classroom management, www.classtools.net for facilitating formative assessment, IWB for differentiation purposes and inclusive language environments both remotely and physically in a school classroom. In all individual semi-structured interviews, participants noted that their unique experience of teaching in tandem with a colleague and some means of technology such as IWB software, applications for language learning provided them with new experiences in understanding how their students could better learn and collaborate in the classroom from which they drew upon new knowledge of how to build student-oriented lessons and learn from their colleagues to advance their pedagogy.

So far, this paper has focused on participants' views of TE from a perspective of Danielson (2013) framework in domains of PCK and Knowledge of Students and Resources. The following section presents important participants' views on teacher technology change which stemmed out from the data.

Teacher Technology Change

A recurrent theme in the interviews was a sense amongst participants that teaching languages virtually synchronously shifted roles between teachers and students, restructured teachers' preparation time and expanded teacher professional development opportunities. All participants highlighted that transitioning to RFLTL via videoconferencing raises issues of regular teacher online support, particularly in accessing and using online subject content and alignment of existing curricula with digital educational content played a critical role in upgrading teachers' technological and pedagogical content skills.

> "…The problem is that when you read the official syllabus and all the syllabus is built around English file but in fact they use some Kazakhstani author... it must be taught like that because it had been taught like that…" (Alina, remote teacher 1, March 21st, 2019)

Two on-site teachers believed that all schoolchildren were fluent with technologies and could adapt to remote learning fast. However, they highlighted that the majority of their urban secondary school students have grown up in a digital community. Although most of them came from extended families,

they were mainly using their digital space for entertainment purposes such as social media for teens and online games. Therefore, the teachers assumed, they could have adapted to videoconferencing means of language teaching and learning quite fast. On the contrary, for students who came from low-income families in rural areas adaptation process of RFLTL took a longer time. As a result, it reflected on time to complete a class assignment for them which later became a challenge for remote teachers to plan lessons with a wide range of differentiation activities for effective teaching and learning accompanied by occasional low bandwidth of the Internet.

For a small number of participants, use of technology was the reason to see their students empowered with technology skills that on-site teachers realised they lacked. For instance, for the first few months of the project teachers had trouble navigating between a classroom TV, a classroom projector and switching between mobile internet and Wi-Fi. As a result, it often meant that lesson time of three to five minutes was lost. Grade 5 students, seeing how their classroom teacher struggled with devices, would quickly solve the issue and connect with the remote teacher. One of the on-site English teachers reflected on students' help as uncomfortable experience she had had for a few months as it demonstrated her poor technological skills to her students. Another on-site English teacher reported she felt comfortable how to use technology while remote teachers reported they have been exposed how to teach with technology and integrate into everyday teaching in their previous teaching experiences. Furthermore, the analysis of study participants' data also showed that while on-site teachers used technology as a delivery tool in the classroom, connecting remote teachers to students, they learnt from students that they used technology as a learning tool to enhance their language skills and broaden their learning experiences.

> "... students also learnt how to make word clouds and how to teach each other and how to work on spelling, pronunciation, definitions…' (Laura, on-site teacher 1, March 30th, 2019)

These results suggest that overall, on-site teachers and remote teachers have similar views about TE from a perspective of PCK and knowing students and available resources. However, on-site teachers look at RFLTL from a perspective of using technology to deliver their lessons while remote teachers, based on their experiences, attempt to integrate technology into instructions. The following section discusses the issues raised by participants in relation to previous research and the implications they have for future research.

Discussion

The purpose of this case study was to better understand on-site English teachers' and remote English teachers' perceptions on TE in RFLTL. The researcher found that in two studied urban schools in western Kazakhstan on-site teachers and remote teachers share similar views on the foundational aspects of TE in accordance with Danielson (2013) framework. However, the data shed a light on theory in which the study was grounded and calls for consideration of contextual factors, not the technology on its own, to be included in improving teaching and learning via technology. Furthermore, study participants highlighted how technology offers unique learning opportunities, improves and personalises language learning experiences for students, adapts teachers' pedagogies with

technological tools making formative and summative assessment, classroom management quicker in real time, repositions teachers' and students' roles at the lesson, challenges teachers' technological skills and restructures their preparation time. The researcher also found that teachers used technology to enable students' creativity by assigning projects and empowering them to use a wider range of web applications, video recording and formatting tools online and to equip them with a greater depth of immersing into a live language not otherwise available with prescribed textbooks and restricted curricula. RFLTL also illustrated an urgent need of an ongoing teacher professional development in the use of specific technology oriented at English language teaching and learning aspects, e.g., bringing authentic cultural language environment virtually to classrooms and how to integrate technology for learning. These data, however, must be treated with caution as it represents a case study of two urban schools in a developing country. Most of the responses provided by participants about an effective pedagogical content approach(-es) in a classroom with elements of virtual synchronous teaching and learning considered the essence of content knowledge as a more important element than pedagogical. According to participants pedagogical approaches may vary and content knowledge views students' learning at the core.

The foundation of understanding PCK can be found in Shulman's (1986) seen as separate Pedagogical Knowledge and Content Knowledge. Constructivist-oriented researchers, for example, project-based or inquiry-based learning reported on exploring students' and teachers' perceptions of how some forms of technological tools aid teaching and learning. The focus of these studies (Almas and Krumsvik, 2008; Manfra and Hammond, 2008) was mainly on technology, however, they are aligned with the central point of teacher performance in the classroom.

Recognition of content knowledge as a prerequisite for strong TE can also be found in other TE models. For example, Stronge and Hindman (2003) advocate to use content knowledge and pedagogical preparation in teacher selection. In Howell, Cook and Faulkner's (2013) study on measuring principals' perceptions of newly hired teachers in the past five years PCK was ranked the highest in quantitative data and the least when principals described effective teachers (p.14). While this discrepancy in rating needs further attention, it provides important evidence of the goals the principals have for teachers.

In connection to RTL, recent studies support that VLEs make it possible for teachers to learn from each other and transform their PCK for teaching online (Erstad and Quale, 2009; McKnight, *et al*., 2016; Mouza, 2002; Rehn, Maor and McConney, 2016; Pettersson, 2018; Wastiau *et al*., 2013). However, the present literature focuses on traditional classroom team teaching. While the COVID-19 pandemic forces teachers and students from brick-and-mortar schools to join VLEs, teachers need to shift to a new understanding of their roles in remote-teaching norms and collaborate to meet their students' needs. Extending the point, a little further and considering TE on the whole, Hargreaves and O'Connor's (2018) views on collaborative professionalism may be valuable in exploring the depth of remote team teaching to understand how teachers, collegially, can transform teaching and learning for their students' benefit and their professionalism.

After analysing the data, it became clear that participants know their students' family background, are aware what social and cultural characteristics influence their interpretation of events, access to and use of technology. However, what was troubling to notice among on-site teachers is low attention to teachers' recognition of how children learn (Vygotsky, 1978), how to value individual students' skills, knowledge and have strategies for differentiating displays of knowledge for various groups of students. In contrast, the remote teachers insisted and sought for their colleagues' cooperation in preparing classrooms for peer collaboration and peer assessment, for walking in the classrooms at different stages of the lesson. Moreover, it was also evident from participants' data that teachers' collaborative work repositioned their professional relationships from individuals to supportive colleagues. It in turn transformed their professional relationships to gain cognitively and strengthened their personal relationships (Dunsmuir, Clifford and Took, 2006).

The data also revealed how teachers acknowledged students' interests and cultural heritage. Although the composition of researched schools is represented largely by Kazakh and Russian ethnic people, teachers reported on a few students coming from mixed families. Participants gave an account of a few events celebrating diverse peoples' national and cultural holidays. These views of language learning including cultural aspects demonstrate teachers' pedagogical approaches by extending it to communicative competence (Hymes, 1972).

There are some recent studies suggesting how technology can be used to learn about local places or international cultures. Some of them argue that particular applications are urban oriented which inevitably creates a digital divide in understanding non-urban settings (Howley *et al*., 2010). Stemming from participants' results, there are statements in which most of the participants stress upon the features of enhancing teachers' digital literacy and teacher development on the whole. Results illustrate that RTL contributes to the development of teachers' continuous learning (Cheng and Tsui, 1999) and technology-related professional growth in a successful second language acquisition (Compton, 2009). In fact, some participants set high demands toward English teachers, for example, "Nowadays teachers need to be tech-savvy. Then we can have creative homework assignments, we can learn complicated topics via watching videos, we can have an individual approach and have interesting lessons. Otherwise, the teacher is not effective". This participant's view ties in with researchers' (Pettersson, 2018; Stenman and Pettersson, 2020) assertion who argue that schools need to hear teachers' voices to foster teacher professional development for remote teaching. Given the current reality of the shift to emerging remote teaching and learning because of the COVID-19 outbreak challenges schools to provide an inclusive remote teaching infrastructure. It signals directions for the schools to address questions of securing teachers' and students' needs, to "build the plane while flying it" (Trust and Whalen, 2020), to redefine RTL strategies and focus on developing ICT policy in supporting school digital infrastructure. Some studies report on similar observations (Wastiau *et al*., 2013). However, we need further research in this area.

From, Pettersson and Pettersson (2020) have recently shown that digitalisation is a pedagogical question. Other researchers (Clark and Mayer, 2011; Watson, 2001) have also noted that when technology is not seen as a pedagogical question, it creates barriers in successful technology

integration. In fact, there is a growing body of literature that note how technology transforms teachers' roles as educators and ignites cognitive processes that enhance learning (Glassett and Schrum, 2009; Levin and Schrum, 2013), how technology shifts teaching and learning paradigm in perceptions of instructional time, space, virtual management approaches, student engagement techniques (Easton, 2003) to name a few.

Today with COVID-19 outbreak the findings of this study emphasise that it is vital to have skills for successful online language teaching and critical understanding and awareness of affordances and constraints of technological mediums. It does not only include technological skills such as how to troubleshoot browser problems or connect devices to the classroom projector, but also which specific software applications for language learning need to be selected including contextual factors such as students' age, ethnicity, school support, how to use these applications and what risks they may bear both for teachers' and students' privacy and how to create a sense of community in VLEs (Hampel and Stickler, 2005).

Opportunities to expand Danielson (2013) framework

The study was grounded in Danielson (2013) framework for effective teaching that explains aspects of a teacher's responsibilities, documented empirically, in improving student learning. Although the framework offers description of teacher's practices, there is a need to redesign the framework for effective teaching and include a separate domain on technology that will intertwine with other four domains in Danielson (2013). For example, the framework should take into account technological factors such as digital school infrastructure, students' and teachers' access to technologies, their digital literacy including basic ICT skills, for example and abilities to synthesise various media to merge pedagogy and observe how learning takes place. Second, the framework needs to expand components of professionalism including technology. The results of this study yielded a further understanding of how two teachers in the classroom and beyond can strengthen construction of their PCK with an added technology element.

This research has thrown up a few questions in need of further investigation. First, we need more research in school leadership and change management to better understand what we need to enable the integration of ICT to be teaching and learning remotely in supporting TE in both urban and rural schools in developing countries. As one participant highlighted, remote teaching should embrace a larger educational aim rather than to improve teacher quality. More broadly, we need research to determine how remote teaching supports the youth in entering an international labour market dominated by technological choices schools offer (Keskitalo, Frangou and Chohan, 2020).

Conclusion

The purpose of this paper not only guided the exploratory efforts but also provided participants' views on addressing more research attention to consider an unfamiliar teaching form as an opportunity for equal and inclusive education. As suggested by Hilli (2018), Stenman and Pettersson (2020) and Hilli (2019) remote teaching offers solutions in teacher shortage issues and in meeting students' learning

needs. However, they also noted that students in rural areas may struggle in receiving quality education remotely because of the contextual, instructional and technological factors.

From the point of teacher development at different levels, it is essential that it focuses on helping teachers adapt and integrate their PCK and skills online (Wang, Hsu, Campbell, Coster and Longhurst, 2014). Foreign language teachers need to gain particular skills such as basic ICT competence and transform their pedagogies in teaching online (Stickler and Hampel, 2015). However, we should keep in mind that technology should assist teachers in their pedagogy and subject rather than consider it as a separate knowledge teacher are to acquire (Koehler, Mishra and Yahya, 2007). Technology-related teacher professional development programs need to be continuous offering just-in-time support (Mouza, 2002) to connect on-site and remote teachers on several aspects in teaching online. However, this requires leadership and organisational support and teachers' voices in developing mutual collaboration.

To support RTL, a school-level characteristic needs to play a larger role in facilitating integrating technologies and educational change rather than being on a teacher-level. An explanation for this might be that remote teaching poses challenges and questions in designing and offering organisational support to its further development.

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