Newly arrived migrant students’ perceptions of emergency remote teaching: A Q methodology study☆

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ABSTRACT

In an attempt to curb the spread of COVID-19, Emergency Remote Teaching was implemented worldwide. The global educational disruption led to a rise in quantitative studies investigating the effect of this shift on student outcomes. These studies suggest a greater negative impact of the pandemic on students from disadvantaged backgrounds, but often fall short of exploring learners’ perspectives on online teaching practices. A Q study with 23 Newly Arrived Migrant Students in Flemish upper secondary education was conducted to investigate these pupils’ perceptions of blended Emergency Remote Teaching. The results show that these students hold at least four different viewpoints regarding Emergency Remote Teaching. The importance pupils assign to interaction and the role of the teacher is an important grouping variable in these analyses.

Introduction

In the course of 2020, due to the COVID-19 pandemic, schools, colleges and universities worldwide closed and were required to find alternative ways to provide teaching to learners other than traditional classroom teaching. The alternative remote education organised in the context of the pandemic is referred to as Emergency Remote Teaching (ERT). ERT differs from traditional distance education, as it consists of teaching solutions that were not originally intended to take place remotely (Hodges et al., 2020; Whittle et al., 2020). Because of the educational divisions already existing globally, concerns were raised about the differential effectiveness of ERT (Drane et al., 2020). For example, the move to ERT may have disproportionately impacted certain underprivileged communities (Aguiaria & Nightengale-Lee, 2020). Technologies used for distance learning may not be accessible to students coming from vulnerable backgrounds, which could negatively impact their learning gains (Beaumoyer et al., 2020). Moreover, for migrant children who lack proficiency in the language of instruction, online interaction with teachers and fellow students might be complicated (OECD, 2020a). Thus, ERT may have exacerbated educational inequalities for students from minority backgrounds (Shi et al., 2022). In light of the risks that the pandemic poses on today’s youth, there have been calls for listening to young people’s voices concerning ERT (OECD, 2020b). However, it remains unclear how vulnerable pupils perceive the shift to remote teaching. This paper examines migrant pupils’ perspectives on ERT in Flemish secondary education, as this population is known to suffer from educational inequalities (Van Avermaet et al., 2017). More specifically, the study sheds light on Newly Arrived Migrant Students’ (NAMS) perceptions of the classroom environment and teacher effectiveness in times of ERT.

Literature review

Differential impact of ERT

Due to the COVID-19 pandemic and the educational disruption it caused, there has been a rise in studies on ERT. Initially, concerns were raised about possible negative effects of ERT on learning outcomes (Maldonado & De Witte, 2021). A year after the start of the pandemic, Hammerstein et al. (2021) conducted a systematic review of eleven studies in Europe, Australia and China, in which they examined the general effects of the 2020 school closures on student achievement. They concluded that the COVID-19 related school closures had a negative effect on student outcomes in primary and secondary education. By contrast, after performing a similar meta-analysis across OECD countries, Thorn & Vincent-Lancrin (2021) suggested that the effects of
school closures may not be as dramatic as was first expected. Evidence from standardized tests showed mixed results concerning students’ learning progress, which is why Thorn & Vincent-Lancrin (2021) conclude that ‘it should not be automatically assumed that the school closures of March-June 2020 had a large negative impact on student progress and achievement’ (Thorn & Vincent-Lancrin, 2021, p.11).

However, from both overviews it appears that the pandemic had a greater negative impact on students from vulnerable backgrounds (Hammerstein et al., 2021; Thorn & Vincent-Lancrin, 2021). While the OECD report argues that ERT might not have had a detrimental effect on test performance at population level, it suggests a greater negative impact of the pandemic on students from vulnerable backgrounds (Thorn & Vincent-Lancrin, 2021). Maldonado & De Witte (2021) evaluated standardized tests in Flanders in order to measure the effects of school closures. They found that the shift from traditional education to ERT resulted in a substantially increased educational inequality between groups of vulnerable students and others. Similar results were also found in France and England (Thorn & Vincent-Lancrin, 2021). While the effect of school closures on the overall student population thus remains a topic for debate, there seems to be a consensus that ERT was less effective for certain groups of students.

In Flanders, Newly Arrived Migrant Students (NAMS) make up a vulnerable part of today’s student population. NAMS’ school trajectories are often problematic: there is an overrepresentation of migrant students and least prestigious – track (Emery et al., 2021) and NAMS are more likely to leave secondary school before obtaining a degree (Van Avermaet et al., 2017). Thus, according to the quantitative studies mentioned above, ERT might have negatively affected NAMS in Flemish education.

Student perspectives on ERT

In the wake of recent calls to investigate students’ needs and perspectives when it comes to ERT (Cockerham et al., 2021; OECD, 2020b), several studies have attempted to map learner perspectives of and experiences with student engagement in an ERT context. Means & Neisler (2021) conducted a survey among undergraduate college students. Participants reported a lower course satisfaction and a lower perception of their learning after the shift to ERT. Moreover, they indicated that staying motivated in the online learning environment was a considerable challenge (Means & Neisler, 2021). This seems confirmed by the study by Cockerham et al. (2021) focusing on student wellbeing and learning: students reported an increase in distraction and a lack of motivation (Cockerham et al., 2021). Moreover, the online environment reportedly lacked opportunities for social connection, as there was an absence of interaction with peers and instructors (Cockerham et al., 2021).

Regarding teacher behavior in ERT, Fuchs (2021) surveyed undergraduate students in Thailand and Sweden to compare their perceptions. A quantitative analysis showed that both groups of students were comparatively satisfied with their instructor’s empathy and behavior in online classes. However, when dividing the participants by their preferred mode of study, the analysis revealed that students with a preference for a traditional pre-ERT classroom had lower teacher ratings: they believed the teacher’s presentation of course material was less interesting and engaging (Fuchs, 2021).

Thus, the aforementioned studies indicate a lack of engagement and interest experienced by students in an ERT context, while also hinting at a complex online teacher-student relationship. Nonetheless, although students from minority backgrounds may have been impacted the most by the shift to ERT (Thorn & Vincent-Lancrin, 2021), these studies do not report on the perceptions and experiences of vulnerable pupils in particular.

Factors predicting student outcomes

As previously stated, data suggests that ERT may be less effective for vulnerable pupils. While this study is not an effectiveness measurement, it is still useful to understand what educational effectiveness entails. According to Molway (2021, p. 2), effective education is ‘associated with improved student outcomes, encompassing both student attainment and also harder-to-measure outcomes such as student enjoyment and well-being’. Moreover, educational outcomes are often associated with student engagement, which refers to learners’ cognitive, behavioral and emotional involvement in their learning process (Lei et al., 2018). Within educational effectiveness research, there is a consensus that several classroom factors predict student outcomes, among which: the classroom environment, the teacher and classroom interaction.

Firstly, the classroom environment can be defined as the learning environment within classroom walls, which relates to teacher empathy, student cooperation, student involvement and task orientation (Fraser, 1998, 2007; Fraser & Kable, 2007; Lai et al., 2015). Classroom environment questionnaires have often been used to explore the connection between the classroom environment and educational effectiveness, which has yielded evidence that the classroom environment strongly influences learner outcomes (Fraser, 2007; Fraser & Kable, 2007). Over the last decades, researchers have distinguished between students’ perceptions of the actual classroom environment and their preferred learning environment (Lai et al., 2015). Since then, several studies have indicated that a greater correspondence between students’ preferred and actual classroom environment leads to better learner outcomes and attitudes (Fraser & Fisher, 1982; Yuen-Yee & Watkins, 1994).

Secondly, the teacher plays an essential role, typically accounting for up to 30% of the score variance in educational effectiveness research (Reynolds et al., 2014). Since the didactic approach that individual teachers use can have a fundamental impact on student learning outcomes, research has focused on determining which teacher practices are positively associated with learning gains (Muijs et al., 2014). “A teaching style in which the teacher is actively engaged in bringing the content of the lesson to pupils by teaching the whole class directly” (Muijs et al., 2015:104) was found to be the most conducive to student learning, overall. The term ‘direct instruction’ was coined to refer to an interactive, feedback-rich didactic approach in which the teacher takes up a central position.

Lastly, interaction is a key element of effective education (Muijs & Reynolds, 2003, 2010). Based on value-added data, Smith et al. (2004) distinguished between highly effective teachers and average teachers. They investigated the different patterns of whole class interaction that both groups of teachers use and found that effective teachers teach more interactively. Moreover, interaction is a crucial element of an effective language learning environment, as it may provide language learners with information about the correctness and incorrectness of their utterances (Gass & Mackey, 2015).

Effective ERT

As discussed above, classroom environment, teacher behavior and interaction are important predictors of educational effectiveness, but it remains unclear to what extent these predictors can be transferred to an ERT context.

ERT is defined as ‘the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses and that will return to that format once the crisis or emergency has abated’ (Hodges et al., 2020). It is thus distinguished from distance education, which refers to educational practices that were initially designed to take place with a distance between learners and instructors (Agullera & Nightengale-Lee, 2020). Even though ERT and distance education are two separate concepts, they are both characterized by a physical distance between the involved parties, which makes their implementation comparable. As research on effective
ERT is scarce, we will consider the main characteristics of effective distance education – keeping in mind that the results may not be directly transferrable to ERT.

In the first place, the effectiveness of distance education is determined by the teacher’s instructional role (Lewis & Abdul-Hamid, 2006). Based on empirical evidence, Hacker & Niederhauser (2000) described five instructional principles for effective online teaching, consisting of the implementation of collaborative problem solving and adequate feedback. Furthermore, the importance of interaction in a distance learning environment has received much attention: distance education researchers have claimed that distance education should entail high-quality interaction in order to be effective (Dixson, 2010). Bernard et al. (2009) tested this hypothesis by conducting a meta-analysis of 74 distance education studies and found that implementing interactive treatments (i.e. settings designed by instructors to encourage interaction) positively influences student learning. In sum, the primary determinants of effective distance education are similar to those in traditional education.

**Q methodology in educational research**

In the previous sections, we have highlighted the importance of the student perspective when it comes to research on ERT and educational research in general. In order to investigate pupils’ voices, perspectives and opinions, Q methodology – a methodology developed in the 1930s used to collect participants’ viewpoints on a specific topic – has proven to be a valuable tool (Coogan & Herrington, 2011; Lutfallah & Buchanan, 2019).

Originally a methodology that was primarily implemented in the social sciences (Lutfallah & Buchanan, 2019), Q methodology has gained momentum in educational research in the last few years. In 2020, Lundberg et al. (2020) conducted a review in which they investigated how Q methodology is applied in educational research. They analyzed 74 Q studies between 2010 and 2020, 21 of which explored the voices of pupils. These studies covered a wide range of topics, varying from students’ attitudes on learning and academic success (O’Connell et al., 2019; Swetnam, 2010) to pupils’ social constructions in schools (Duncan & Owens, 2011; Xi et al., 2016). Ultimately, Lundberg et al. (2020) concluded that Q methodology has “sheer limitless potential as an educational tool to support pupils’ learning and development due to the methodology’s flexibility in terms of study focus and design” (p. 13).

The potential of Q methodology in educational research has been established. Moreover, Q methodology has been put forward as a methodology that “takes note of ‘quieter’ voices, those that are in the minority of a sample group but whose points of view are equally important” (Pike et al., 2015, p. 672). Therefore, we believe Q methodology is valuable in the study of vulnerable pupils’ perceptions of ERT.

**Research question**

Due to the COVID-19 crisis, educational systems worldwide had to find ways to organize and implement ERT and its teaching and learning practices. Although these practices were part of an unexpected educational disruption, they will continue to have an impact on educational systems (OECD, 2020b). As students are ‘experts’ in their experiences with ERT, it is crucial to understand their needs and perspectives when designing future online education (Cockerham et al., 2021; OECD, 2020b). More specifically, because vulnerable learners seem the most affected by the worldwide shift to ERT (Maldonado & De Witte, 2021; Thorn & Vincent-Lancelin, 2021), their perspectives on ERT are essential within this dialogue.

As explained earlier, we have identified four key determinants of effective ERT: (1) engagement, (2) classroom environment, (3) teacher and (4) interaction. Based on these determinants, this study aims to explore in what ways pupils perceived the elements of effective instruction in their ERT experiences. More specifically, this paper will address a Q study set up to answer the following research question: How do NAMS in Flemish upper secondary education perceive blended ERT?

**Research context**

NAMS are a growing population in Flemish secondary education. After migrating to Flanders, high-school aged migrant students take part in a year of reception education with a main focus of learning Dutch. After this year, most of them shift to regular secondary education. This transition is often far from smooth as many NAMS experience difficulties in regular secondary education, such as overrepresentation in the vocational track and a higher risk of leaving secondary school before obtaining a degree (Emery et al., 2021; Van Avermaet et al., 2017).

From November 2020 to May 2021, blended ERT was implemented in Flemish high schools due to the second wave of the COVID-19 pandemic. High school pupils had to take classes remotely half of the time, for which the use of online learning platforms was strongly suggested (Onderwijs Vlaanderen, 2020). The rest of the time, traditional classroom instruction was allowed.

**Materials and methods**

**Q methodology**

We conducted a Q study to map NAMS’ perceptions of ERT. In a Q study, a group of participants are given a set of statements about a particular topic. This ‘Q sample’ can be collected from academic or popular texts, or formal or informal discussions (Watts & Sterneker, 2012). Participants are expected to rank the statements on a pyramid-shaped grid from ‘most agree’ to ‘most disagree’. Q methodology then applies an inverted factor analysis, in which the researcher looks for correlations between persons rather than items. In other words, this inverted factor analysis clusters persons who have ordered the statements similarly and thus have similar viewpoints (Watts & Sterneker, 2012).

In this study, all statements to be sorted in the Q study were drawn from comments participants made in earlier focus groups. By using the participants’ comments, the study draws extra attention to these minority voices.

**Participants**

This study focuses on one group of vulnerable learners, being the population of Newly Arrived Migrant Students. The inclusion criteria of this study consisted of NAMS in the technical or general track of high school who experienced Flanders’ blended ERT.

The primary researcher contacted reception education schools in city A, asking which high schools most of their pupils transition to after reception education. Of the ten qualifying schools, four agreed to participate after having been informed about the study. To be able to achieve data saturation, this study required more than four focus groups, which is why the scope of the study was broadened to two larger schools within the same province (one in city B and one in city C).

Due to COVID-measures, schools could not be visited to recruit participants. Therefore, in each school a counsellor was informed about the study, after which they contacted NAMS and asked them to participate. Prior to data collection, the participants and their parents were informed about the research through an information sheet and signed an informed consent form. Institutional board review was obtained in advance.

23 participants (17 female, 6 male) in upper secondary education (year 3 to year 6) took part in the Q study. The participants had migrated to Flanders two to six years prior to data collection. Their first languages were Arabic ($n = 8$), French ($n = 4$), Persian ($n = 3$), Polish ($n = 2$), Thai ($n = 2$), Twi ($n = 1$), Turkish ($n = 1$), Tagalog ($n = 1$) and Somali language ($n = 1$). A more detailed list of demographic information on the
participants can be found in Appendix A.

Materials and procedure

The concourse of the study, i.e. “the volume of discussions about a topic” (McKeown & Thomas, 2013, p. 3), was built from direct interview quotes occurring in focus groups, which is a common methodology within Q study research (Brown, 1993; Watts & Stenner, 2012). Six focus groups were organized: one in each participating school. The interviews were conducted in Dutch, which is the participants’ second language. However, communication between the participants and the interviewer was overall relatively fluent.

The interviews were semi-structured and centred on questions about the participants’ experiences with online classes, online interaction and participation and the possible impact of remote teaching on their Dutch proficiency. These interviews were recorded and transcribed verbatim, after which they were coded using NVivo 12 (QSR International Pty Ltd, 2020), which yielded a code tree consisting of 40 codes.

To build the concourse, the primary researcher selected a broad range of interview quotes to make the concourse represent a wide variety of opinions. All quotes were reformulated based on five principles:

1. Each statement formed an answer to the question ‘What is your perception of ERT?’
2. Each statement was related to one of the primary determinants of effective education (engagement, classroom environment, teacher and interaction) or to Dutch proficiency.
3. Each statement expressed an opinion.
4. Each statement was formulated from the perspective of the pupils.
5. Each statement was formulated in an absolute way, i.e. statements like ‘I am not as motivated anymore’ were reformulated to ‘I am no longer motivated’.

When selecting the Q sample, it is important that this sample is representative of the concourse (Coogan & Herrington, 2011). Therefore, the three authors of this paper carefully selected 46 of the reformulated statements: these statements were clearest and best represented each of the five determinants, while also relating to 18 of the coding categories (cf. Appendix B).

Participants were given 46 statements on the online application Q Method Software (Lutfallah & Buchanan, 2019). First, they were asked to categorize the statements in three groups: statements they agreed with (+), disagreed with (−) or felt neutral or conflicted about (0). They then returned to these three groups of statements and sorted the statements on the following grid from most agree (+6) to most disagree (−6).

After the Q sorting process, a post-sorting interview was organized with each participant. These interviews were conducted in order to get a deeper understanding of the participants’ Q sorts. First, the participants were asked about the statements at the extreme ends of the Q sort grid. In order to cover statements related to all five determinants, the primary researcher then highlighted other statements to discuss, after which participants were invited to share their thoughts on any remaining statements. The post-sorting interviews typically lasted 15 to 20 min (M = 15 m 15 s, min. = 9 m 38 s, max. = 31 m 22 s).

Analysis

Initially, the 23 collected Q sorts were correlated and subjected to a by-person factor analysis using PQMethod software (Schmolck, 2014). Four factors were extracted and rotated using Varimax rotation. These factors each had an eigenvalue greater than 1.00 and explained a cumulative variance of 40.68%, which is a sound solution for a Q study (Coogan & Herrington, 2011; Watts & Stenner, 2012). The selection of four factors was confirmed by visual inspection of a scree plot. With a significant factor loading of 0.38 or above at the p < 0.01 level, 19 Q sorts loaded significantly on one factor. Three Q sorts were confounded: one loaded significantly on factor 1 and 2, and two on factor 2 and 4. To maintain the focus on the individual factors, we excluded these confounded Q sorts from further analysis, along with one remaining Q sort that did not load significantly on any factor. A table with the Q sorts and their factor loadings can be found in Appendix C.

Q sorts loading significantly on the same factor show similar sorting patterns. In a next step, these Q sorts were merged into a ‘factor array’: this is a model sort for each factor calculated through a weighted average of the significantly loading Q sorts. As mentioned earlier, this step excluded Q sorts loading significantly on more than one factor.

The factor array looks like a completed Q sort, which forms the basis for factor interpretation. Factor interpretation is a qualitative step within Q methodology and ‘takes the form of a careful and holistic inspection of the patterning of items in the factor array’ (Stenner et al., 2005, p. 2165). The aim of factor interpretation is to get a full understanding of significantly loading participants’ shared viewpoints.

Results

The factor analysis and interpretation yielded four viewpoints, which we labelled ’I miss my teacher’ (viewpoint 1), ’I make the most of online classes’ (viewpoint 2), ’I am unable to keep up with online classes’ (viewpoint 3) and ’I am keeping up but not interacting’ (viewpoint 4) (Figs. 1–4).

Below, individual statements will be referred to as such: (statement ID: position on grid associated with viewpoint). For example, if participants associated with a given viewpoint strongly agree with statement 16, it will be noted as (16: +6).

Viewpoint 1: ’I miss my teacher’

Factor 1 has an eigenvalue of 2.76 and explains 11.99% of the variance. This is the most strongly represented viewpoint within the study sample: eight participants are significantly associated to it (> 0.38, p < 0.01).

Two elements are essential to this viewpoint: the teacher’s central role in the (online) classroom and participants’ Dutch proficiency development.

According to viewpoint 1, the teacher has two primary functions within the online classroom. First of all, the teacher functions as an interactor. Participants who hold this viewpoint attach importance to interacting with their instructor during online classes. They feel entitled to ask questions when they do not understand the subject material (3: −5). Furthermore, they respond to speaking opportunities created by teachers (11: −3). This high willingness to interact with instructors explains why pupils loading onto this factor prefer online classes to pre-recorded videos (40: −2): with pre-recorded videos, there is no opportunity to interact with the instructor.

Secondly, according to this viewpoint, the instructor is a motivator. The teacher’s presence positively affects the students’ engagement. It is therefore crucial that the teacher’s webcam is switched on during online synchronous sessions, as it makes pupils feel obliged to pay attention (21: +2). Moreover, when these pupils are in the online classroom, they are cognitively and behaviorally engaged: they are keeping up with the course content (37: −3) and actively answering the instructor’s questions (11: −3).

Even though this viewpoint highlights that there is online interaction between learners and instructors, which makes pupils feel ‘visible’ during online synchronous sessions (25: −5), participants still feel a distance between them and their teachers during ERT (38: +1). More concretely, they miss making eye contact with their instructors (22: +2). This indicates that, according to this viewpoint, the teacher is felt to be more present in the physical than in the online classroom.

Viewpoint 1 also represents strong perceptions on Dutch proficiency development during online classes. Participants associated with this
Fig. 1. Factor array for viewpoint 1.

Fig. 2. Factor array for viewpoint 2.

Fig. 3. Factor array for viewpoint 3.

Fig. 4. Factor array for viewpoint 4.
viewpoint believe their Dutch proficiency improves daily (32: +6). At the same time, out of all viewpoints, participants representative of Viewpoint 1 most strongly agree with the statement that their Dutch proficiency would have better developed without online classes (31: +5). When asked to explain this, one participant indicated the lack of speaking opportunities beyond the classroom walls as a potential reason: ‘In the physical classroom we speak more. We also do more speaking opportunities beyond the classroom walls as a potential reason: Viewpoint believe their Dutch proficiency improves daily (32: +6).’

S. Seynhaeve et al.

In sum, when it comes to the preferred learning environment within this viewpoint, it is clear that there is a preference for the traditional pre-ERT classroom. There, the teacher functions as an interactive and a motivator and learners can better develop their Dutch proficiency in interaction with peers.

**Viewpoint 2: ‘I make the most of online classes’**

8.12% of the variance between respondents is explained by factor 2, which has an eigenvalue of 1.87. Viewpoint 2 is shared by three participants.

Within this viewpoint, online classes and ERT are considered a beneficial learning experience: online classes are chill and generate more productivity and time to relax.

In the first place, just like viewpoint 1, participants representative of this viewpoint indicate that their Dutch proficiency improves daily during ERT (32: +6). However, in strong contrast to viewpoint 1, viewpoint 2 entails that this is because online classes are beneficial to Dutch proficiency development (33: –4). This is explained by the fact that participants who hold this viewpoint seem to frequently engage in interactions with teachers and fellow pupils during online classes: in the online classroom, they believe asking questions is easy (2: +2) and they feel like they have more time to answer the teachers’ questions (9: –1). Moreover, within this viewpoint, it is believed that online classes generate more interaction with a larger variety of peers (18: +3).

According to this viewpoint, being a NAMS does not negatively affect one’s ability to follow online classes or to handle the workload during ERT (44: –2). One participant made the following comment: ‘some pupils really do not study and by not studying, they also cannot get on’ (4SP3). Within this viewpoint, educational success thus depends on the amount of work pupils put in, and participants representative of this viewpoint seem motivated and engaged: during online synchronous sessions, they feel obliged to pay attention to the teacher (21: +1), they do not get distracted easily (6: –3) and they keep up with the lecture (37: –4).

For participants associated with viewpoint 2, the teacher’s role in the preferred classroom environment is less central. For instance, the instructor is not expected to turn on their camera (26: –3), as pupils who hold this viewpoint are able to concentrate just as well when the teacher’s webcam is turned off. Moreover, these pupils do not miss making eye contact with their teacher (22: –1) and they do not sense a distance with the instructor (38: –1). In sum, although this viewpoint indicates a substantial amount of interaction between learners and teachers, it also suggests that pupils are autonomous students who feel like they do not need much of the teacher’s presence.

Even though viewpoint 2 shows a positive outlook on remote teaching, it also suggests that ERT is not always ideal: online classes have both benefits and drawbacks (35: +4), and the combination of online and on campus classes is considered difficult to manage (34: –3). However, the corresponding participants seem to make the most of the situation they were put in and turn ERT to their advantage.

**Viewpoint 3: ‘I am unable to keep up with online classes’**

Factor 3 explains 9.22% of the study variance and has an eigenvalue of 2.12. Three participants’ Q sorts loaded significantly on factor 3.

Viewpoint 3 has the most negative perspective on ERT and online classes, which is mainly due to a lack of engagement.

According to this viewpoint, online classes primarily affect students’ cognitive engagement. The most strongly agreed-with items show that respondents found online classes difficult to follow (36: +6), that students do not understand the subject material (37: +2) and that they get easily distracted (6: +4). Moreover, the corresponding pupils believe that the cognitive difficulty of ERT is related to them being a NAMS (44: +5). This could entail that students who hold this viewpoint believe their native peers do manage to keep up with ERT.

The struggle with cognitive engagement seems to affect the corresponding students emotionally and behaviorally. They lack motivation (46: +3) and their workload is so high that they cannot successfully fulfil all their assignments and tests (5: +3), which are two possible reasons why they have a negative opinion of online classes (12: –4).

Within this viewpoint, the lack of motivation and engagement seems to correlate with an absence of interaction. Statements about asking questions (11:0) and potentially wasting the teacher’s time (3:0) are both put in the zero column, which indicates that participants holding this viewpoint seem to take little initiative to interact with their teachers during online classes. They thus might have a low willingness to interact with their instructors. Furthermore, there is no indication of interaction with peers during online classes (18: –5; 19: –2). Possibly because of the lack of active interaction in the online classroom, these participants indicate that their Dutch proficiency has not progressed during ERT (32: –3).

In conclusion, participants associated with Viewpoint 3 believe online classes do not benefit them. As NAMS, they are unable to keep up with ERT and online classes. Moreover, they lack motivation and easily get distracted. In short, these participants report being lost and feeling negatively about online classes.

**Viewpoint 4: ‘I am keeping up but not interacting’**

Factor 4 has an eigenvalue of 2.61 and explains 11.35% of the variance between respondents. This viewpoint is significantly represented by six participants.

This viewpoint represents a positive outlook on ERT: online classes are ‘chill’ (13: +5) and generate more time for recreation (4: +6). These statements are strongly agreed with, which shows that they are important benefits of ERT within the viewpoint.

The positive outlook on ERT is probably partially achieved by a strong cognitive engagement in the online classroom. Students representative of viewpoint 4 do not believe online classes are hard to follow (36: –2) and they can keep up with the teacher’s explanation (37: –5).

Behaviorally, the corresponding students appear to be slightly more withdrawn from the online classroom. For instance, they do not find it necessary to turn on their webcam during online classes (23: +3). Moreover, they seem quite indifferent about asking questions in the online classroom (2: 0) and provoking to the teacher that they are paying attention (42: 0). This explains why participants representative of this viewpoint indicate that the teacher has no idea if they are in the online classroom during live sessions (25: +1).

When it comes to the teacher’s role within the classroom environment, students holding this viewpoint seem to favor a traditional learning environment in which the teacher is a resource; the teacher is thus primarily there to provide information and to explain the subject material - not necessarily to interact with learners. This explains why, in strong contrast to viewpoint 1, video recordings are considered the best ERT method (40: +4): pre-recorded videos entail that pupils do not need to interact with others.

The preferred classroom environment within viewpoint 4 (i.e. the role of teachers as a resource and the inactive role of learners) thus seems to strongly overlap with the actual classroom environment. Participants holding viewpoint 4 suggest that learners – themselves and peers included – do not actively interact in the online learning environment (30: +2). They also seem content with the teacher’s role, as
they indicate that they do not sense a distance between them and the instructor (38: −2). In sum, they appear to enjoy online classes as they believe ERT is not at all a waste of time (16: −6) and they disagree with the statement that they do not want online classes (12: −2).

Discussion

This study brings into view the perceptions of Newly Arrived Migrant Students regarding Emergency Remote Teaching. In doing so, it not only addresses a recent didactic innovation that we have yet to fully understand; it also answers the need to incorporate vulnerable students’ perspectives and needs when organizing inclusive distance educational practices in the future. Building on previous studies relating to students’ perspectives on ERT, this paper reports on a Q study carried out with 23 NAMS in six Flemish secondary schools, in order to investigate their perceptions on the primary determinants of effective education in an ERT context.

The Q study consisted of items associated with four predictors of student outcomes, i.e., student engagement, classroom environment, teacher presence, and interaction, together with one determinant relating to Dutch proficiency. Our analyses yielded four viewpoints. These were not bound to certain schools or classrooms but were shared by respondents in different educational settings with diverse backgrounds and length of stay in Flanders. As such, it is unlikely that the perspectives we identified are an immediate consequence of school choice or demographics.

Firstly, student engagement was covered extensively in previous research: ERT caused some students to struggle with a lack of motivation and an increase in distraction (Cockerham et al., 2021; Means & Neisler, 2021). This loss of student engagement was represented in Viewpoint 3 of our study: participants believed online classes were difficult to keep up with, which is why they lost motivation and got distracted easily. This meant that they were also not actively participating in the class. The perceptions on student engagement within Viewpoint 3 are in strong contrast to the other viewpoints. Participants representative of Viewpoints 1 and 2 appeared to be both cognitively and behaviorally engaged: they were able to keep up with the classes and they were participating by asking the teacher questions and interacting with peers. The former is also the case within Viewpoint 4: participants indicated that they were focused and attentive during online classes, but they were a little more reserved to actively participate.

Secondly, we considered the teacher as another primary determinant of educational effectiveness. The viewpoints of our study strongly differed regarding the teacher’s role within the online classroom. Participants who hold Viewpoint 1 heavily rely on their instructor as an interactor and a motivator: the teacher’s presence motivates them to engage in interactions. This is in contrast to Viewpoint 2, in which the teacher’s role is not central and the students are more autonomous learners. The relationship between the teacher and participants associated with Viewpoint 3 is more complex: there, the teacher does not fulfill the role of a resource as participants do not feel entitled to asking the instructor for help. Finally, within Viewpoint 4, the teacher is considered a resource: learners merely listen to their instructor and do not take up an active role within the (online) classroom.

Thirdly, interaction is considered a crucial predictor of effective online learning (Dixson, 2010). Participants associated with Viewpoint 1 and 2 appear to have a stronger willingness to interact in the online classroom: they experience benefits of online interaction, like an increased Dutch proficiency and interaction with a larger variety of peers (Viewpoint 2), and they would prefer more learner-teacher interaction (Viewpoint 1). Within Viewpoint 4, participants feel like they do not need online interaction in order to keep up with the class. This is in contrast with Viewpoint 3, in which the participants report that their Dutch proficiency did not progress due to the absence of interaction.

Lastly, students’ perspectives on engagement, interaction and the teacher give us insights into their preferred learning environment. Lai et al. (2015) distinguish between the preferred and actual classroom environment, and claim that a reduced gap between the two positively affects learner outcomes. While we cannot make any statements about student outcomes based on our data, we can compare the preferred and actual classroom environments across viewpoints. In Viewpoint 4, we noticed an overlap between the preferred and actual classroom environment. Participants representative of this viewpoint seemed to have a preference for an online classroom in which the teacher primarily functions as a resource and learners do not take up an active participatory role. This preference appeared to correspond with the actual environment, which explains these participants’ positive attitudes towards ERT. In contrast to Viewpoint 4, there was a larger gap between the preferred and actual classroom environment of Viewpoint 1. Participants within this viewpoint favor a more traditional learning environment in which the instructor is central, but they claim that there was not enough teacher presence in the actual classroom environment. Thus, their perceptions on ERT are not as favorable compared to those within Viewpoint 4.

The strength of Q methodology lies in its possibility to explore the voices of students and minority pupils in particular (Lundberg et al., 2020). Thus, as an answer to the research question, this Q study gives insight into a range of perspectives, grouped in four different viewpoints, on ERT and online learning that occur within the population of NAMS. Previous ERT research has suggested that the unexpected shift to online learning negatively impacted vulnerable learners who were already facing educational inequalities (Maldonado & De Witte, 2021). Adding to these quantitative studies, our study shows that the NAMS population perceived the implementation of ERT in various ways. While some pupils were making the most of the situation they were put in, others felt lost and unable to keep up with online classes. Moreover, a group of students longed for more interaction with their teacher, though others enjoyed the lack of active participation that was expected of them.

This study is subject to certain limitations. In the first place, the study focuses on a limited number of participants. As NAMS are a highly heterogeneous group with strongly varying backgrounds, a similar Q study with more participants might yield divergent viewpoints. Moreover, because school counselors were responsible for participant recruitment, they may have selected participants based on certain characteristics, like a positive attitude on learning or a higher Dutch proficiency. However, in spite of its limitations, this study reveals the perceptions of some NAMS, which gives insights into the struggles and successes these students experienced during ERT. When organizing future distance education, it is advisable to be aware of these perspectives in an attempt to create a more inclusive distance learning environment for this vulnerable population of students.

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Declaration of Competing Interest

The authors report there is no conflict of interest to declare.

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Appendix A. Participant information

| Participant | Focus group part. | Q study part. | Sex | Age | Mother tongue | Year of reception education | Year in school | Track | Field of study |
|-------------|-------------------|---------------|-----|-----|---------------|---------------------------|----------------|-------|---------------|
| 1SP1        | X                 | X M           | 18  | English | 2018-2019       | 4                    | technical       | Technical Sciences |
| 1SP2        | X                 | X F           | 19  | Arabic  | 2019-2020       | 4                    | technical       | Technical Sciences |
| 1SP3        | X                 | X F           | 18  | Arabic  | 2016-2017       | 5                    | technical       | Health and Wellbeing Sciences |
| 2SP1        | X                 | X M           | 19  | Turkish | 2014            | 6                    | general         | Economics and Sciences |
| 2SP2        | X                 | X M           | 18  | French  | 2017-2018       | 5                    | technical       | Physical Education and Sports |
| 2SP3        | X                 | X F           | 20  | Persian | 2018-2019       | 6                    | general         | Human Sciences |
| 2SP4        | X                 | X M           | 20  | Arabic  | 2016            | 6                    | general         | Sciences and Maths |
| 3SP1        | X                 | X F           | 18  | Polish  | 2016-2017       | 5                    | technical       | Social Technical Sciences |
| 3SP2        | X                 | X F           | 19  | Tagalog | 2018-2019       | 5                    | technical       | Accounting and IT |
| 3SP3        | X                 | X F           | 19  | Arabic  | 2019-2020       | 4                    | general         | Sciences |
| 3SP4        | X                 | X M           | 17  | Arabic  | 2019-2020       | 4                    | technical       | Technical Sciences |
| 3SP5        | X                 | X F           | 19  | Arabic  | 2019-2020       | 4                    | technical       | Technical Sciences |
| 3SP6        | X                 | X F           | 17  | Arabic  | 2018            | 4                    | technical       | Entrepreneurship and IT |
| 4SP1        | X                 | X F           | 17  | French  | 2019            | 3                    | technical       | Business |
| 4SP2        | X                 | X M           | 17  | Arabic  | 2019-2020       | 4                    | general         | Sciences |
| 4SP3        | X                 | X F           | 16  | Arabic  | 2018-2019       | 3                    | general         | Sciences |
| 4SP4        | X                 | X M           | 19  | French, | 2019-2020       | 4                    | technical       | Electro-Mechanics |
| 5SP1        | X                 | X F           | 20  | Thai    | 2015-2016       | 6                    | technical       | Social Technical Sciences |
| 5SP2        | X                 | X F           | 20  | Thai    | 2016-2017       | 6                    | technical       | Social Technical Sciences |
| 5SP3        | X                 | X F           | 20  | Persian | 2017            | 6                    | technical       | Social Technical Sciences |
| 5SP4        | X                 | X M           | 21  | Somali  | 2015-2016       | 6                    | technical       | Social Technical Sciences |
| 6SP1        | X                 | X F           | 17  | Persian | 2018            | 5                    | general         | Human Sciences |
| 6SP2        | X                 | X F           | 19  | Polish  | 2018            | 6                    | general         | Human Sciences |
| 6SP3        | X                 | X F           | 17  | Arabic  | 2017-2018       | 5                    | general         | Sciences and Maths |
| 6SP4        | X                 | X F           | 18  | Persian | 2016-2017       | 5                    | general         | Economics and Sciences |

* The participant codes are based on the focus groups participants took part in: XSPY thus refers to focus group X, speaker Y.

Appendix B. Q sample

| No. | Statement                                                                 | Coding category         |
|-----|---------------------------------------------------------------------------|-------------------------|
| 1   | I prefer to ask the questions that come up during an online class in the physical classroom afterwards. | Asking questions         |
| 2   | Asking questions during online classes is easy.                           | Asking questions         |
| 3   | When I ask questions during online classes, I am wasting the teacher’s time. | Asking questions         |
| 4   | Thanks to online classes, I have more time to relax.                     | Workload                 |
| 5   | Due to ERT, I do not have the time to do my best for everything.         | Workload                 |
| 6   | During online classes I am constantly distracted by other things that have nothing to do with class. | Workload                 |
| 7   | When I see the teacher on the screen, I can concentrate less well than when they are standing in front of me in class. | Focus                    |
| 8   | My classmates’ webcam images during online classes distract me.          | Focus                    |
| 9   | During online classes I have more time to answer the teacher’s questions than during classes in the classroom. | Focus                    |
| 10  | The best start of an online class is when the teacher lets us speak up to talk about what we learnt in the previous class. | Speaking opportunities   |
| 11  | During online classes I do not feel like answering the teachers’ questions. | Speaking opportunities   |
| 12  | I do not want online classes.                                            | Spontaneous associations with online classes |
| 13  | Online classes are chill.                                                | Spontaneous associations with online classes |
| 14  | Online classes which make you feel like you’re at school (for example because the teacher is writing on the blackboard) are the best online classes. | Spontaneous associations with online classes |
| 15  | Online classes have only positively affected me.                         | Spontaneous associations with online classes |
| 16  | Online classes are a waste of time.                                      | Spontaneous associations with online classes |
| 17  | During online classes I explain the course content to my peers.          | Peer interaction during class |
| 18  | During online classes I have more interaction with more of my classmates. | Peer interaction during class |
| 19  | My classmates can help me more during physical classes than during online classes. | Peer interaction during class |
| 20  | I’m only interested in what the teacher says when I can see them.         | Webcam                   |
| 21  | When the teacher’s webcam is turned on, I feel obliged to pay attention. | Webcam                   |
| 22  | During online classes I miss having eye contact with the teacher.         | Webcam                   |
| 23  | I do not find it necessary to turn on my camera when the teacher does not ask me to. | Webcam                   |
| 24  | If the whole class would turn on their camera, I would be able to better concentrate. | Webcam                   |
| 25  | During online classes the teacher has no idea that I’m there.             | Webcam                   |
| 26  | It’s important that the teacher turns on their camera during online classes. | Webcam                   |
| 27  | I dare not ask the teacher for the meaning of a difficult word during online classes. | Metalinguistic strategies |
| 28  | When I do not understand a word during online classes, I cannot follow the rest of the class. | Metalinguistic strategies |
| 29  | A good atmosphere during the online class is necessary to be able to concentrate. | Class atmosphere         |
| 30  | It’s so quiet during online classes that it feels like my usual classmates are not there. | Class atmosphere         |
| 31  | Without online classes my Dutch would be better.                         | Impact online classes on Dutch |
Appendix C. Rotated factor matrix

| No. | Statement                                                                 | Coding category                                      |
|-----|---------------------------------------------------------------------------|-------------------------------------------------------|
| 32  | My Dutch improves every day.                                             | Impact online classes on Dutch                       |
| 33  | My Dutch can only improve during physical classes, not during online classes. | Impact online classes on Dutch                       |
| 34  | Online classes and physical classes are both not a problem, but the combination is difficult. | Combination online and physical lessons               |
| 35  | Both online classes and physical classes have benefits and drawbacks that weigh equally heavy. | Combination online and physical lessons               |
| 36  | Online classes are hard to follow.                                        | Difficulty                                            |
| 37  | I do not understand a thing of the teacher’s explanations during online classes. | Class atmosphere                                      |
| 38  | During online classes I feel a distance between the teacher and myself.   | The blackboard                                         |
| 39  | The use of the blackboard is absolutely necessary to understand classes.  | Recorded videos                                       |
| 40  | Video recordings are the best way to get ERT.                            | Communication and planning                             |
| 41  | It is unclear where and when online classes take place.                  | Wiliness to interact                                  |
| 42  | During online classes, I want to prove to the teacher that I’m paying attention. | Productivity                                           |
| 43  | Thanks to online classes, I am more productive.                          | Impact L2 on processing                                |
| 44  | Pupils who did not follow reception education can follow online classes more easily than me. | Impact L2 on processing                                |
| 45  | Pupils who did not follow reception education need less time than me to do their tasks. | Productivity                                           |
| 46  | Due to online classes I no longer have motivation for school.            | Productivity                                           |

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