

Distance Learning: Methods and Factors for Effective Delivery of Educational Experience

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Abstract

The aim of the article is to analyse the distance education also known as distance/open/distributed learning or remote education. It involves acquiring information from methods other than the traditional way of learning or teaching – physically attending the institutions. Modern day distance learning is influenced by advanced technology which enables connection of thousands of learners. Study resources can be delivered instantly through internet in a wide variety of presentation methods. The article will illustrate and consider the methods used in distance learning as well as effectiveness of it if compared with traditional teaching/learning forms.

Keywords: distance/open learning, distance/remote education, study resources, advanced technology.

Introduction

Distance education is traditionally defined as, any educational or learning procedure when a learner and a teacher are separated geographically. There is no physical interaction between learners. The idea of what we now call 'remote learning' is not new (Beck, 2004; Folkers, 2005) 'Correspondence Courses', in other words receiving learning material and returning assignments by mail, first appeared almost 300 years ago.

Looking at the history of distance education, 'correspondence courses' (the initial form of distance education), developed in the mid-nineteenth century in Europe and then spread to the United States (Shih, et al., 2003)

Initially distance education used the most modern technology available at those times, such as using the postal service for students who could not attend traditional schools. Mostly such learners were women, professional people, physically disabled, or those living in remote locations.

Distance education changed drastically after the invention of radio in the 1920s and television in the 1940s. In our century, with the arrival of computer, distance education evolved rapidly (<https://www.lithuaniaeducation.info/distance-education>).

The research show, that pupils, whose teachers worked effectively, progressed by one class in comparison with the ones, whose teachers did not use effective teaching methods (Hanushek, 1992; Meroni, et al., 2015) However, appearance of new technologies changed the traditional model at schools and higher institutions when physical participation is not necessary (Yuan et al., 2013; Shearer et al., 2020). Learners now by use of the conferencing technique known as one-way video/two-way audio can share information almost immediately. The Open University has its roots in the early 1960s, when the idea of making higher education courses available to anyone who had not been able to attend a traditional university campus, was first proposed by the politician Harold Wilson. He had the idea of using the then relatively new means of communication of television and radio to broadcast lessons which would supplement traditional written work. At the time, few people believed that such an idea was necessary or would even be practical. (MacLeod, 1999)

Distance or distributed learning does not rule out the traditional methods of learning. These are the types of distance education based on the medium:

1. Internet (through websites, email, electronic bulletin boards, and messaging systems)
2. Video (pre-recorded or two-way interactive, i.e. computers, satellites, cameras, and television)
3. Audio (phone conferences, radio broadcasting and audio CDs)

There are the advantages of distance learning as such: ability to combine work with existing

commitments; it is much cheaper; there are no deadlines and that is why less pressure, usually start date could be fixed; time of and place of study could be decided; possibility to achieve a degree from any spot in the world.

But there are certain disadvantages, as well: it requires self-motivation; there is lack of face-to-face time; it does not offer immediate feedback; it must be accredited; it gives students only little of opportunity to work on oral communication skills; it does not always offer all the necessary courses online; distance learning requires to have reliable access to technology (<https://www.lithuaniaeducation.info/distance-education>).

Remote or online learning has now gained a significant foothold on a global basis. Accessibility and convenience remote learning offers attract learners everywhere, especially those with families, those, who want to combine work and studies, not leaving their countries. The number of students taking admission in college-level online courses has risen drastically. The leading countries are United States, India, China, South Korea, Malaysia, Australia, and United Kingdom. Online education in the UK after 2010 experienced real growth. The government looks forward to more suitable and cheaper educational alternatives so that is why invests a lot. Presently, a few private, profit-making contributor and the Open University are topmost players in online education. (<https://www.lithuaniaeducation.info/distance-education/top-distance-learning-countries.html>)

Remote education in the UK

For the Open University, qualifications range from short courses to undergraduate and post-graduate degree programmes, in addition to Certificates and Diplomas in Higher Education. All degrees are awarded based on the achievement of a designated number of credits. Student course work is graded on the submission of required Tutor Marked Assessments (TMAs) and (at present) one end of course invigilated three-hour exam. There is also use of up to six interactive computer marked assessments (of short answer or missing word formats). However, a growing number of courses have what is called an End of Module Assessment (EMA) in place of an exam, in that it is completed at home and is similar in principle to the TMA.

Note that in addition to subject-named degrees as BA or BSc, degrees can be awarded as 'open', which means that the students can design a degree programme to meet their individual needs. Degrees from the Open University are valued every bit as much as those from more conventional institutions and in fact, it is recognised that those who have achieved a qualification from this institution have done so in addition to holding down a job and/or holding family care responsibilities. Students are advised not to take any more than one 60 credit value programme (or equivalent) each year, which is around 12-14 hours of study per week, with a degree taking on average 6 years to complete.

All course material is designed from the outset for remote learning and usually consists of a range of learning and investigative material together with recommended reading sources. The total number of student enrolments in 2019 was just over 168,000 (worldwide) and the annual report states a satisfaction rate of over 87%, with over 70% of enrolled students studying whilst in the workplace ('earning and learning'). In terms of subjects chosen, social studies is a consistently popular study area and has regularly attracted over 15,000 students every year, followed by biological and physical sciences (over 12,000) and historical and philosophical studies (over 8000).

The range of subjects offered in the Open University Syllabus covers the fields of: Arts and Humanities, Biology, Business and Management, Chemistry, Combined Studies, Computing and IT, Counselling, Creative Writing, Criminology, Design, Early Years, Economics, Education Engineering, English, Environment, Geography, Health and Social Care, Health and Wellbeing, Health Sciences, History, International Studies, Languages, Law, Mathematics, Mental Health, Music, Nursing and Healthcare, Philosophy, Physics, Politics, Psychology, Science, Social Sciences, Social Work, Sport and Fitness, Statistics.

Like other UK universities, the OU actively engages in research. The OU's Planetary and Space Sciences Research Institute has become particularly well known to the public through its involvement in space missions.

Coursera, which offers remote course delivery grow to over 280 million students in over 180 countries, in partnership with over 175 universities, has seen enormous growth in course uptake since its inception in 2012 (<https://www.coursera.org/>)

Open learn is also owned by The Open University and provides a large range of free, uncertificated courses. They 'deliver bite-sized learning experiences designed to fit easily into daily life'.

The content covers a wide range of subjects, and many free courses are adapted from parts of existing OU modules, past or present. All courses enable you to earn a statement of participation. Although they do not have any formal standing, they can be a very useful learning tool and can also act as a bridge to a more formal learning experience.

The Open University is also a joint owner (with SEEK Ltd) of Future learn, a provider of Massive Open Online Courses based in the UK. (<https://www.futurelearn.com/courses>)

Most courses are 6-10 weeks in length, but there are also shorter courses of 2-3 weeks duration.

You can study a course free of charge, however there is a fee to pay if you wish access to assessment material and certificates of completion. The fee of (approximately £250) will allow you to study, undergo assessment and print certificates of completion for an (notionally) unlimited number of courses.

The concept of FutureLearn is very similar to that of Coursera, another provider of MOOCs which allows access to many study programmes free of charge but will require a fee for access to assessment and certification. (<https://www.coursera.org/>)

Distance learning in Lithuania

Many countries focus more on distance learning than on traditional courses recently.

Distance or remote learning in Lithuania is currently at the development stage. There are many problems and obstacles to its implementation, including the following factors: such forms of teaching are not sufficiently understood by the public; there are initial investments; estimating profits is not easy. Considering the traditional teaching process in Lithuania, open and distance learning must be developed in the infrastructure of universities and colleges, using the existing computer network, accumulated academic potential and assessing the real need for DE courses (Rutkauskienė, Cibulskas, 2019).

Curricula and teacher training systems are currently being restructured in line with Eastern European education reform. There is a shift to flexible forms of learning. An example would be distance learning. In Lithuania in Phare countries and other DE centres. These centres establish and develop links with universities and other higher education institutions. Such institutions have a sufficient technical base and are ready to carry out part of their studies in DE.

Pedagogical distance learning courses are much needed. They will allow teachers to acquire new skills without distancing themselves from the main job.

All forms of remote lectures require special preparation, which requires a lot of time and energy. However, once prepared, the material can be used many times. The accumulation allows video conferencing and remote delivery to be integrated as deeply into the learning process as possible.

Over the last few years, the importance and essence of distance learning in Lithuania has been perceived. On this basis, the first distance learning work on the application of the latest information technology was launched. The use of modern information and communication technologies and the diversity of services in teaching and learning processes provide new opportunities to create a balanced and harmonious information society and to develop the individual skills of its citizens (Rutkauskienė, Cibulskas, 2021.)

Lithuanian remote and e-mail Learning Association (LieDM Association) unites 50 Lithuanian educational institutions that carry out distance or blended learning or focus on the application of technology in their educational activities. July's priorities focus on collaboration, openness and sharing of experiences on innovation, open curriculum and IT solutions. LieDM institutions organize joint events and trainings, participate in national and international projects, and share information about online or mixed programs in various education sectors. The association also encourages institutions to use a variety of technologies and share their practices with institute members (<https://oepass.eu/partners/lieadm/>).

The LieDM Association is a voluntary organization uniting all Lithuanian institutions of science, studies and education that provide distance learning and learning. It was created in 2010. in January, based on agreements between the members of the institutions. The association supervises and develops the activities of the LieDM network, uses its capabilities and centrally implemented services. The LieDM Association operates in the Republic of Lithuania. It follows the Constitution of the Republic of Lithuania, the Civil Code of the Republic of Lithuania, the Law on Associations of the Republic of Lithuania, and its own statute. The Association is a limited liability legal entity.

According to the statute of LieDM association, the members of the association could be:

- Lithuanian science, study and education institutions;
- Other institutions implementing remote and e. learning in one's own practice;

- Individuals interested in or working in technology have enhanced their learning.

The LieDM association consists of 46 institutions. The main aim is to develop distance and e. learning in Lithuania. There are other aims such as (<http://liedm.net/en/about-liedm>):

- Developing the collaboration of Lithuanian science, study and education institutions in the field of distance and e- learning.
- Gathering specialists, working in different science, study and education institutions, for preparation and implementation of joint projects and scientific research in the field of distance and e- learning.
- Concentrating the resources of Lithuanian science, study and education institutions for organization and dissemination of distance and e- learning.
- Providing consultations and services in the field of distance and e-learning.
- Collaboration with the foreign distance and e. learning networks and associations, to foster international mobility ensuring virtual mobility possibilities for representatives of Lithuanian science, study, and education institutions.

Relevance and importance of the study is the following: by focusing more on distance learning and learners' needs, remote education is taking over traditional learning and becoming more efficient and easier to maintain.

Research problem. What are the methods and factors for effective education of distance learning in Lithuania and the UK?

Research object: the effectiveness of distance learning.

Research aim – to find out about the effectiveness of distance learning in two European countries.

Research objectives:

1. To overview the situation on distance learning in the UK and Lithuania.
2. To analyse the factors of distance learning and the effective methods used.
3. To compare the situation on distance learning in two different European countries.
4. To compare the results on distance learning between teachers and pupils/students to find out if there is a correlation.

Method

Subjects and sampling method. In April-September 2021, the survey aimed to assess the respondents' knowledge of the concept of distance/remote learning, its characteristics, methods, and effectiveness of the teaching/learning method used in two countries, Lithuania and Scotland and the benefits it brings to education society. This is initial research as any surveys have been conducted before.

Two questionnaires were drawn up during the survey. The first questionnaire aims at getting answers from teachers as respondents, the other – students/pupils.

V. Dikcius' formula was used to calculate the sample size:

$$n = \frac{1}{(\Delta)^2 + \frac{1}{N}} \quad (1)$$

Here n – the size of the required sample with the possibility of sample error $p=0,954$.

N – the total size.

Δ - the allowed sample error size ($\Delta =0,05$).

The chosen method of quantitative research was that of anonymous internet survey. According to the sampling of the quantitative study, the subjects are of the simple random sampling type. Respondents were selected from Lithuania and the UK (mostly Scotland). In the questionnaire, respondents were asked to choose one or more of provided options, also to answer open questions.

Instruments of data recollection

A questionnaire was developed during the study. Question types used: dichotomous, liqueur scale, and multivariate, open questions. The first part aimed to assess the concept of distance/remote learning/education, different teaching/learning methods and effectiveness. The second part aimed to analyse the benefits of distance/remote learning. The last part of the questionnaire asks questions about a

user's demographics. There were two similar questionnaires created for teachers as well as students/pupils.

A valid study was conducted (teaching staff n = 36 UK and 47 Lithuanian, in total n=83; pupils n= 48 British and 136 Lithuanian pupils, in total n=184) and the chosen quantitative research method (survey) achieved the goal (to evaluate learners/teachers' opinion about the benefits of distance/remote learning).

Plan and procedure

Various scientific literature and Internet databases were analysed on the topic of distance/remote learning/education.

Findings

The aim of the research was to find out about the effectiveness of distance learning in two European countries, teaching methods used, and peculiarities of this kind of learning. 267 respondents participated in the survey: 81 teachers or teaching staff members, 184 pupils or students, 183 from Lithuania (working or studying there), 84 – from UK (working or studying there). Respondents' attitude to remote learning by teaching staff is shown in Table 1 (see Table 1).

Table 1. Attitudes to remote learning: teaching staff

Teaching Staff Sample	Positive attitude to remote learning	Neutral attitude to remote learning
Lithuania	25%	58%
United Kingdom	44.4%	33%

Relatively speaking, there was a significantly higher proportion of teaching staff from the UK sample who held a positive attitude to remote learning than those from the Lithuanian sample, where in comparison well over half of the returns stated a neutral attitude to remote learning. Just under one third of the returns from the UK teaching staff indicated a neutral attitude to this method. It is possible that the differences in attitude between the two groups of teaching staff was due to the length of time that this method had been established and its level of use, even in pre-pandemic times.

Table 2 shows positive responses to remote learning by Lithuanian and British teaching staff.

Table 2. Positive responses to remote learning

United Kingdom teaching staff: positive responses to remote learning	Republic of Lithuania teaching staff: positive responses to remote learning
'Remote learning is comfortable, but there are a lot of factors for it to be successful.'	I have much more time for leisure
'Personally, I feel very positive about the remote learning because you get a chance at the "real" world experience due to self-discipline with your learning.'	It is good for my own time management
'Its structure means less distractions and quick marking.'	Positive: lessons are like the ones I teach in the classroom. Zoom platform allowed to group students for generating their ideas and then share them with the rest of the class. Also, doing listening to tasks or playing games are not a problem
'It is accessible from anywhere: concentration can increase and there are less distractions. There can be a greater focus on problem solving skills and it can improve opportunities for student responsibility for their learning.'	Timesaving; just as effective.

While there may be subject limitations to this mode of delivery, if prepared and carried out methodically this can provide flexible access to many subjects and qualifications to many students who, for whatever reason, are not able to attend face-to-face classes.'	I am used to working remotely, I have no difficulty with such work
'It creates more opportunities to access course and opportunities around the world.'	Lots of advantages, like timesaving, no travel expenses, quick to teach the lesson, interactive methods used.
'I have found the experience of teaching online has been positive as the systems available are straightforward and flexible enough to meet the challenges of the subjects I focus upon.'	

The responses from both teaching groups illustrated common factors in terms of the perceived positive aspects of remote learning (see Table 2). These included a greater degree of flexibility in student access to provision and potentially a greater level of focus on lesson content delivery. Teaching staff stated that they were essentially comfortable with the remote delivery method and that it also provided an opportunity for a more effective use of time. It was also acknowledged that there were many factors involved for a successful and effective use of this delivery method.

Neutral responses by both UK and Lithuanian teaching staff are presented in Table 3:

Table 3. Neutral responses to remote learning

United Kingdom teaching staff: neutral responses to remote learning	Republic of Lithuania teaching staff: neutral responses to remote learning
'Remote learning does not work for all students as some students participate better in a classroom.'	'It is good just for the sake of safety regarding the situation, and it is at times more convenient that it is not necessary to travel, yet nothing could replace face-to-face interactions and learning/teaching in conventional classrooms.
'I believe that social interaction is much needed for the students.'	I am used to this style, but I think that direct lessons are much more intensive. As everywhere, there are pluses and minuses.
	It is possible to find advantages and disadvantages as in this method of studying.
	A teacher should be flexible and able to work in circumstances the society is undergoing. Therefore, it is neither positive nor negative.

These included the views that remote delivery will not entirely suit the learning needs of all students and that an element of classroom social interaction may be missing in using this method. Whilst there may be an element of convenience in that the need for travel is eliminated, which is helpful, there may be an effect for some on wellbeing and motivation.

Table 4 presents negative responses by both countries teaching staff:

Table 4. Negative responses to remote learning

United Kingdom teaching staff: negative responses to remote learning	Republic of Lithuania teaching staff: negative responses to remote learning
'Personally, I feel it's easy to lose students and more particularly when practical demonstration is unavailable due to circumstance outwit tutor control.'	The downside of the platform is limited time for a free session. Google classroom is not the best platform for English live lessons as it is impossible to group students for pair/ group discussions, plus to play listening tracks are also complicated. The biggest problem in distance teaching is hard to control students' cheating in all the fields.

'As an Early Years teacher, it is very difficult to facilitate quality opportunities for play and learning.'	I think that contact teaching is more effective than distant.
'It can be very difficult to support students due to factors such as: lack of IT equipment, poor/no Internet, lack of parental support, students not motivated.'	There is a lack of contact with students, and time spent at a screen has become longer.
'Children lose focus easily and don't take the lessons seriously.'	It can lead to a lack of interaction in various aspects of the education process.
	Students forget communicative skills. Some students need individual lessons (teaching) at school. Some families have internet problems.
	It is way too much time-consuming. It is also impossible to prevent students from cheating during the tests.
	It is more efficient to work in a conventional classroom.
	It's quite hard to concentrate, there's often interruptions (by family, websites, or other internet distractions).
	I don't see much difference for classes like IT, but classes that include some listening tasks etc. are suffering. Also, a great benefit for teachers and student is that you can see if student is understanding the topic from his body language and teachers are losing this ability.

The list of negative factors was significantly larger in the responses from the Lithuanian teaching staff sample (see Table 4). These included limitations for this platform depending on subject area and difficulties in perceiving student understanding (these being heightened through teaching staff inability to monitor facial expression and body language). They also listed students experiencing interruptions in the home setting, difficulties with equipment, lack of opportunity for students to engage in social and communications skills and also the difficulty of ensuring that the required examination and assignment conditions were maintained. One return from UK teaching staff noted that this form of delivery may also have further limitations depending on the age of the pupils or students involved. The factors of interruptions in the home setting and difficulties with equipment were reflected in the paper 'Distance Learning Modalities in the New Normal', in which it was noted that 'the challenges met by the students in the online mode were the difficulty in understanding the lessons and disruptions in attending classes such as household chores, unstable internet connections and too many activities were required by the teachers.

To the question "How long do you feel a single remote lesson should last at most?" most of respondents (more than 70%) answered a lesson should last up to 1 hour at most to have maximum effectiveness. Over two thirds of teaching staff felt that any single lesson should last no longer than 1 hour.

To the question “To prepare a remote/distant lesson compared with teaching in a conventional classroom, is more time needed or is it about the same?” the following answers were given:

Table 5. Time to prepare for a remote lesson

Teaching Staff	More time	About the same
Republic of Lithuania	66%	34%
United Kingdom	55.6%	44.4%

Teaching staff in both countries thought that more preparation time was required for remote lessons than in class, although the proportion was lower in the UK than in Lithuania. Slightly over one third of teaching staff in Lithuania considered the amount of preparation time to be the same, with over 40% of responses from teaching staff in the UK being the same (see Table 5). The point that ‘once prepared, material can then be used many times’ was made in the article ‘Open and Distance Learning Development in Lithuania’ (Rutkauskienė & Cibulskas, 2019), however material developed for remote delivery should be regularly reviewed both in terms of content and presentation.

Talking about the essential factors for the remote/distant lesson content to be accessible and easy to understand, the given answers were selected the following:

Table 6. Essential factors for accessibility and ease of understanding

Teaching Staff: Republic of Lithuania	Teaching Staff: United Kingdom
Clarity; structure; knowing the aim of the lesson.	Good preparation
Teacher's IT literacy and motivation to use various IT tools.	I think the use of slides is one of the easiest and most accessible content to understand
I think the teachers should be more understanding and give a smaller workload. Since often we receive too much work and do not remember things. I also think students should try and remove as many distractions as possible.	The content has to be engaging as the social element is lacking, so the students don't feel isolated and interact with the rest of the group. Breakout rooms are important and discussions and activities too.
It is important to make the lesson interesting	Fast internet and recording of the lessons and a quick break in between.
Interactive content, changing methods, various approaches to teaching, student-oriented teaching, practical tasks	Visual aids are essential and good IT equipment/Wi-Fi
More one on one calls with students who struggle	Short and clear: catchy and fun using varied methods
An easy to use program that can present the lessons contents in an interesting and an easy to access way.	Good WIFI connections are essential, as is the appropriate staff and student equipment. Training in using software and systems is also important, especially when new resources are introduced. Timely support for staff and students where there are technical problems is also essential.
The material to be displayed and additional sources used should be well analysed, and well presented; also the technical quality of video and sound is very important.	Make sure that the subject is appropriate for remote delivery, prepare content right from the start with this mode of delivery in mind and ensure that the material is easily accessible with no unnecessary complications in terms of language use and concept outline.

The same as in the classroom - the optimal lesson plan and methods.	Availability of Digital lessons, appropriate network accounts and internet connection, all teaching content made available to access through multiple storage: Teams, OneDrive, Office365, iCloud, Google Docs etc and, multimedia productions accessible via YouTube and educational websites.
To my mind it is good quality of the Internet and its access	
Visual presentations, additional interactive material. Teacher skills are very important.	
Suitable learning tools, a positive approach and socialisation with students	

There were several factors considered to be important for ease of student understanding which are also standard considerations for conventional methods of delivery. In terms of responses from teaching staff from both countries, these included clarity of lesson aims and teaching material, a well-structured lesson plan and a variety of formats used for the teaching material itself, with an emphasis on visual and presentation material. It was also thought to be important for follow up individual sessions, especially for any students who may have difficulty with access and/or understanding aspects of lesson content. Lesson breaks must be carefully considered to ensure that teaching staff and students do not become fatigued and possibly above all, the subject itself must be appropriate for this type of lesson delivery. An interesting response suggested that teaching staff must be aware of the possible need for additional patience when using remote delivery (see Table 6).

Good internet connection and reliable equipment were obvious essential factors in terms of accessibility. A maximum of up to 4 hours each day of remote delivery was thought to be acceptable by 50% of teaching staff from both the Republic of Lithuania and the United Kingdom.

The question “Do you feel that the classroom environment has any advantages over remote/distant learning? If so, how could remote/distance learning be improved?” was answered like this:

Table 7. Advantages of remote/distant learning

Teaching Staff: Republic of Lithuania	Teaching Staff: United Kingdom
Yes, of course. Distance learning has been comparatively new, even though both teachers and students are about to adapt to it. Yet, I have no idea how it can be improved since I believe it might be suitable only for university students or highly motivated senior high school learners.	No
Students must have all necessary equipment to interact	I believe that classroom creates more focused, ready to learn atmosphere. But I do not know how remote learning could be improved in this field.
No	I think the only thing missing from the remote learning is personal connection, but I don't think it could be improved
I don't think that the classroom environment has any advantage over distant learning.	I think one of the biggest hurdles is poor internet connection which makes it very difficult for the student to learn anything

<p>Teachers should give more free classes to work individually and not spend time looking at monitors.</p>	<p>I totally believe that the classroom environment enriches the students' social skills and caters for all learning styles. Remote learning is about activities, media, and interaction.</p>
<p>I don't know how the remote learning can be improved.</p>	<p>No</p>
<p>I don't think that the classroom environment has any advantages. It is messier there and sometimes it is hard to focus</p>	<p>If packs of materials could be given to families to support play, learning and social skills then this would be useful. The teachers' presence helps with focus, inspiration, quicker problem solving, community spirit, and bad habits are spotted and removed more quickly.</p>
<p>No, I do think there are advantages of being in a classroom. In a classroom teaching staff can answer more questions, explain better and there are less distractions.</p>	<p>Practical activities are difficult to teach online. Taking a new approach to the teaching and having suitable resources available can help, but for some subjects, there is no obvious way to replicate this remotely.</p>
<p>Students improve their IT skills, and it can be used during distance learning preparing projects and other material.</p>	<p>The classroom can have an 'immediacy' that may not be present online and body language and facial expression cannot be read. Some students may be reluctant to ask questions during the teaching session, however 1-1 calls could be scheduled in future to speak with all course members in addition to being available 'on-demand'. Remote learning does provide an opportunity to look afresh at teaching material with a view to examining clarity and accessibility of the learning experience.</p>
<p>The lack of socialization is a factor while learning remotely that is why we need to have a tighter connection with students</p>	<p>Very much, there is more control over student activities and learning.</p>
<p>Yes, but the classroom environment is one of factors influencing students' motivation to learn. In classroom students concentrate better to study.</p>	
<p>I can't think of any specific things, but I believe that the classroom environment has more advantages than disadvantages in every field except for convenience. Personally, I would prefer to sacrifice my convenience and wake up earlier in the morning but provide better education.</p>	
<p>Direct communication is very important. During distance learning, the rules must be clearly defined so that students participate in the lecture with the cameras turned on, are active, perform tasks honestly</p>	
<p>Nothing will ever change face-to-face communication and learning. But as a variety, this education can be used and then both types of</p>	

learning are valuable and add/give some extra value to each other.	
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Mixed responses were received for this question. These included the position that there is no substitute for the quality of interaction experienced in the classroom setting, through to neutral responses and also the counter position where the view was taken that there are less distractions in remote delivery. Some held that students gained useful experience in developing IT skills using this method, however it was also important to make sure that supplementary material was available in addition to the verbal/visual delivery.

Talking about how connected teachers feel to their students during remote/distance learning, 57% of teaching staff both in Lithuania and the United Kingdom feel connected to the students with just under one third stating that they did not feel very connected.

Talking about enough training for effective online lesson delivery, 38% Lithuanian teaching staff said they were, 5% were not sure meanwhile 26% UK teaching staff said yes while the same number as Lithuanian said not sure. Responses indicated that a higher proportion of respondents in Lithuania felt that they had been given enough training in remote delivery in comparison to their counterparts in the United Kingdom, although this was below 40%. A small proportion, just over 5% in both countries, indicated that they were unsure.

A variety of methods used were reported to be used by teaching staff from both countries (see Table 8). Platforms such as Google Classroom, Zoom and Teams were commonly used. Methods of delivery included use of e-books, internet websites, Microsoft Word and PowerPoint, YouTube and other video resources and the Kahoot Quiz maker and Wordwall. Classroom discussion, working in pairs and breakout rooms and brainstorming were also used. In essence, these are the same methods used for face-to-face delivery. The Coursera Impact Statement for 2020-21 indicates that 81% of students gave their course a maximum rating for course satisfaction, indicating how effective remote learning can be when it is structured, presented, and delivered for maximum effectiveness.

Table 8. Methods used in remote/distance learning

Teaching Staff: Republic of Lithuania	Teaching Staff: United Kingdom
Lecture; practice (digital studying material - SB/WB) pair-work critical thinking, brainstorming (which follow some videos)	Slides
Zoom lesson, video extracts, e-book,	Videos, PowerPoints
I spend more time searching information by myself.	PowerPoint presentations, Kahoot game and the same as in the classroom
Class work, pair work, group work (discussions, project presentations, games, polls etc.)	I use Microsoft Teams, present the information, have a discussion by allowing them to raise hands and unmute to talk. I always incorporate breakout rooms and also give short breaks for toilets/drink so they can concentrate and focus.
Active learning, working in a group and brain storming	Videos, visualisers, written work
Information search, working in pairs, group work, discussion.	Google classroom

Breakout rooms; brainstorming; discussion (world cafe, forums, question-answer session, etc.); the same as in a conventional classroom if technologies allow.	Differentiation Modelling and Scaffolding Problem-solving Visualization Slides online resources
A lot of digital tools: Zoom, Wordwall, live worksheet, google forms, google classroom, platform: previously we used Edmodo platform and we liked it.	Offer interesting and varied approaches. Share video's, Podcasts, images, PowerPoints, and documents. Use discussion groups and break-out rooms. Encourage students to share ideas and their work. Teach for a maximum of 1 hour before having a break.
Working in groups, presentations, and discussions.	Interactive lecture and discussion of prepared material, video and audio clips and issue of follow up content for home study and consolidation. All students are advised of contact details and are encouraged to make contact using their preferred means for revision and remediation as they individually require.

Approximately 70% of British and Lithuanian pedagogues claim that their institutions (school/college/university) are helpful in offering the resources to teach from home. Talking about the possibility to choose to teach remotely if the pandemic had not happened, teaching staff in Lithuania and the United Kingdom said yes (20%), nor sure 30%, no – 50%. It is interesting to note that the ‘trigger’ for the large-scale use of remote delivery does seem to have been the occurrence of the pandemic, with half of teaching staff from both countries responding that they would not have chosen to engage in this method otherwise. Just under one third indicated that they were uncertain of this and one fifth of respondents indicated that they would have chosen remote teaching and learning methods.

Comparison of the findings by British and Lithuanian pupils about remote/distant learning

About half of both the British and Lithuanian students feel neither positive nor negative regarding the distance learning experience. More students in the United Kingdom felt positive about the experience than those in the Republic of Lithuania (see Table 9):

Table 9. Student responses to Remote Learning: Republic of Lithuania

<u>Student responses to Remote Learning: Republic of Lithuania</u>
Remote is not bad but for me real contact will come first
Because now kids don't need to walk to school and can sleep more so they have more energy to learn
I like remote learning and have no problems
I think if you give your full attention to the teachers, you learn more than in real life.
It's better
I feel positive because I learn and understand everything. Sometimes I just need more help with something, but my teachers help me with that.
I like distance learning since I have more free time, I have more freedom, I can at least go outside.
It's much more comfortable that going to school. Also, you have more free-time, and you're more free yourself - for example, I can go outside every break, I can eat every break etc.

I think that distance learning is quite good for some subjects, however most subjects that are harder, like math, physics, chemistry would be better if they were taught in person.
Because some classes are easier online than in school and some are much harder.
In remote learning I don't really get motivated to do something and I have to sit and look at my computer for hours.
Some of my grades have improved but others have fallen.
I don't like it, but I don't hate it.
I feel confident and happy when it comes to doing things like these. I prefer to do stuff by myself
I don't really like distance learning because it usually stresses me out and it's also more difficult to focus in class or understand new themes during class.

A broad range of responses were received regarding student feelings about this method. In Lithuania, these ranged from a preference for working alone outside of the classroom environment, ambivalence in terms of not liking or disliking this method and a clear preference for working in class. Personal convenience and not having to travel was given as a positive factor, however it was also stated that some may begin to feel a lack of motivation and that it can be too easy to just search the internet for answers to questions that should ideally be personally considered. It was stated that it is important to make sure that you give your attention to the teacher when using remote learning. The responses from the British students are given in Table 10:

Table 10. Student responses to Remote Learning: UK

<u>Student responses to Remote Learning: United Kingdom</u>
I'm rather introverted so I quite like it
It is great to study remotely, but it's definitely not easy
Due to distance learning students do not get the full "learning" experience when a teacher could give you her attention 1:1 and help you with your problems
There can be a lack of support from teachers in online learning
I have mixed feelings about online learning
Time management, concentration and speed of learning is easier as there are less distractions in online learning
I find that I am more motivated by distance learning as I can focus more effectively than in a classroom. This is because I have time to reflect more on the aspects that I feel I need to concentrate on and I find that there are less distractions.
I prefer going into the classroom

It helps to do some online learning and some physical learning so that I feel doing a mixture helpful at times and to not get bored about it.
When the pandemic started we went into lockdown and we had to do online learning, I was agitated because my laptop didn't work for a while, but I got the laptop fixed and now I can do it no bother
It mainly depends on internet connection situations; for example, if internet is slow and low on quality, it would have an impact on being able to stay well during online lessons - it may disrupt the chances to listen in and try to fix the internet problems. On the other hand, it is great for those people who are unable to attend college physically, therefore it is either depending on those areas
I did not have a choice to switch to remote learning delivery of class it was due to government instructions and my college following these instructions. Remote learning arrived overnight with no provision for planning and implementation.
I feel that it's neither positive nor negative because my lecturers have really been proactive in making this a manageable way of receiving education. However, this isn't the way education should be delivered. So I think that in some cases online learning could be appropriate such as theory classes but more practical subjects face to face teaching is crucial. I definitely don't support online learning, but my experience hasn't been really that negative purely because of the tutors and the support given.
Not much in the way of practical classes for the course I'm taking. Makes it difficult to do group work as well

There seemed to be a lower proportion of outright negative responses in terms of United Kingdom student feelings about remote learning, compared to those in Lithuania. The limitations of this method for delivery of practical subjects were mentioned, as was the necessity of its use due to the pandemic. One respondent mentioned the usefulness of this method for theoretical classes as part of a blended system of face-to-face classes and remote delivery. Another acknowledged the efforts made by teaching staff to help students engage with this form of delivery, although several others did express their feelings that on balance, they did prefer personal contact in classrooms. The students feel a single remote lesson should last:

Table 11. Duration of a remote lesson

Duration	Up to 1 hour	Over 1 hour
Republic of Lithuania	85%	15%
United Kingdom	54%	46%

Although students from both countries indicated a maximum single lesson duration of one hour, the proportion of respondents in Lithuania (85%) was much greater than that of the United Kingdom (54%). A very small proportion of Lithuanian students (15%) indicated that they felt a longer duration would be acceptable, with a much higher proportion of United Kingdom student returns ((46%) indicating that they would consider this to be acceptable. Most British students would prefer up to 2 hours maximum content (37%), with 33% considering that up to 3 hours would be acceptable. Meanwhile Lithuanian students (46 %) say up to 4 hours each day is fine for them. Tables 12 and 13 present the essential factors for the remote/distant lesson content to be accessible and easy to understand:

Table 12. Essential factors for the remote/distant lesson content: UK

UK Students
Be allowed to mute yourself and not forced to let others view you in sessions and respect others preferences if they need privacy.
Interesting teaching style, good preparation, natural style of speaking.

I think the best accessible content is the use of slides.
Clear instructions easy access.
A mix of online course resources is useful in helping to understand a subject. For example, online course reading as well as audio/video resources. It is also helpful to break the material into small sections per day/week to make it more approachable. So having a weekly or daily plan set detailing what sections/chapters/material to be covered makes coursework lessons less intimidating.
Examples and voice recordings.
If you are on remote learning for more than 2 hours, I think there should be a break in between.
It would be great to give out essential paperwork to study and perhaps have a revision as well to reinforce content.
For each class I think the maximum time we should have in each class is an hour, because if you are online for a long time, it can actually affect your leaning, but the maximum time we should have for the whole day is 3 hours with break in between.
These things are quite easy to access and good to comprehend at least for online lessons.
Firstly, there needs to be organisation from the tutors. Moodle and learning platforms should be well equipped. Support should be given beyond the online calls; pupils should be able to arrange one to one meeting. Within my course we have support staff (former students who have worked in the industry). They sit in calls and over feedback and support whenever they can.
A good mix of reading materials as well as video and audio. For the video/audio materials, having access to transcripts is also very helpful to follow what is being discussed and clarify anything that might be missed.

Table 13. Essential factors for the remote/distant lesson content: LT

Lithuanian Students
I think teachers just need to be well prepared for teaching with explanations of lessons, but I think most of them are doing everything well from the ground up.
To explain everything more clearly and it is easier to learn because you can record what the teacher said and replay it for yourself.
To explain everything clearly (three responses indicated this).
Teachers should give understandable information and communicate with students during lessons and not just show slides that they have prepared. Communication and easily accessible content is key in this situation.
A computer, good internet, others having the same things.
I think teachers must do more interesting lessons and not give much homework.
It is important to have a reliable internet function so that no one loses contact with the meeting.
Probably the teacher should be sharing websites or files that they used during the lesson so we could look at them if we didn't understand well.
Start time should fit in with being at home.
If the course is well structured, it's easy to navigate the content.
It feels tiring if lessons take longer than 3 hrs.
Interactive programmes, ability to see teacher's notes.
The best thing would be to be able to watch a recording of the lesson or at least have some references/links regarding the basic content of the lesson.

Again, the main factors crucial to the success of conventional classroom delivery were also held to be essential with regards to online/remote delivery being accessible and easy to understand. These included a high level of organisation and planning on the part of teaching staff with well-structured lessons using a variety of methods of delivery. The Economics, Business and Enterprise Association emphasise the importance of planning explanations in advance, removing unnecessary elements from teaching material to help ensure clarity and introducing new concepts in small 'chunks'. It was considered important for information to be easily accessible and understandable, with all notes and documents used being available

to participating students. Teaching staff should try to make their delivery style naturally interesting and engaging. Lesson length should be carefully considered so as not to be too long to be comfortable, otherwise student ability to concentrate will suffer. Start and finish times should also be considered so as to fit in with the realities of home life, with consideration being given to the reality that some students may find it difficult to have a designated quiet area for online attendance and study. Therefore, it must be accepted that students should be able to mute their microphones and deactivate cameras as needed. Students also felt that the basic necessity of internet and IT equipment access should be recognised. Group size should not be so large as to be intimidating for students who wish to ask questions, or for the asking of questions to students to be difficult to manage. Follow up sessions, as mentioned before, should be available on an individual basis for remediation as required.

Most of the student state that the home environment is either just suitable or very suitable for both countries. Or almost 60% of British students stated that the classroom environment has advantages, meanwhile for more than half of Lithuanian respondents stated that it doesn't

The results of the answers to the question "How do you feel that remote/distance learning could be improved" are presented in Table 14 and 15:

Table 14. Remote/distant education improvement: UK

British
Group video chat etc, yet if the task requires human interaction, you could schedule a whole day support for such things to complete the necessary tasks in a supportive way.
I don't think remote learning can be improved because if you need help with anything the lecturers will give you help with anything you are struggling with.
It can be improved by having emergency backup internet service, that's if people are having trouble with their internet provider.
I think they need to encourage students to ask and answer questions instead of talking for a long time, because if the lecturer keeps talking, you can get confused.
I that lectures should include more visual presentations - they could make a presentation for each lessons as they go through each class. I would also encourage students to ask as many questions as they want if they find a concept difficult to learn by anything from how complicated it is to not making total sense to them.
The amount of support given needs to be improved, I am not saying this from personal experience, but this is more general. I think tutors should break just talking about education and course work and have genuine conversations to see how people are doing.
I feel it could be improved if it was a bit more interactive and engaging by having a 5-minute warmup sort of thing at the start of each session
A designated study space helps massively, which unfortunately not everyone always has access to. Having access to the study materials out with the designated lesson time is a great benefit to those who may not have an optimal study area at that specific time.

Table 15. Remote/distant education improvement: LT

Lithuanian students
It can be improved if teachers would make videos of them explaining the subject.
Don't be too hard on students and don't give more work than teachers would give at regular classes.

Less contact hours for learning because it can be exhausting.
Teachers could try to find web pages where we must do the work instead of writing on paper so it's more convenient.
I don't know. A classroom environment's advantage is that it gets you more focused than being at home.
There are some aspects of learning in a classroom that cannot be experienced online so no improvements would be sufficient.
I think a part of the problems is that the other students aren't directly visible, and you don't know what they could be doing.
I think lessons must be little, shorter, because of eyestrain, I think lessons must be about maybe 3-4 lessons in a day.
I think that distance learning is good enough.
If you don't understand something your teacher can help you easily. But in online learning its harder to help students.
Right now, it's essentially good, it's just that we are looking at a computer screen all the time and it's not healthy. We also have many distractions.
I think teachers should avoid giving a lot of work away from class as it is already a lot to have to sit in front of a computer for most of the day.
My studies involve a lot of discussion and teamwork which is essential to retain attention of the audience. So interactive lessons are key.
Shorter lessons, with videos.

Ideas put forward included having small and frequent breaks to aid concentration and shorter lessons with videos. Also, a greater use of visual presentations and more interactive methods such as group discussions and question and answer would help to make the lessons more engaging. Also, a short 5 minute 'warmup' period was suggested to allow the class to become comfortable with the remote environment and teacher style for a particular lesson. Not giving more work than would take place during face-to-face classes was also considered to be a relevant factor. UK Government sponsored research on remote education notes that 'learning is not fundamentally different when done remotely. Feedback and assessment are still as important as in the classroom. It can be harder to give immediate feedback to pupils remotely than in the classroom, but teachers have found some clever ways to do this', although noting that this was still an evolving field. Current methods included 1-1 follow up calls, chatroom discussion and messaging.

Almost 50% of the students in each country do feel connected to their fellow students and to their teaching staff. More than 20% do not feel connected. Teachers were very helpful for 30% UK and LT students, for 60% - helpful and not helpful only for 10% Lithuanian students and 0% for the British ones.

Table 16 and 17 present the methods liked most during the remote/distant lessons:

Table 16. Methods most like during remote learning: LT

Lithuanian students
Work in groups and project work
I like online classes and when teachers just post what to do.
When teachers show us slides.
The mix of live and offline lessons, having fun quizzes such as Kahoot, having more time to study the homework because you are at home.
Teacher using an additional camera for their notes, so the students could see what the teacher is writing, while explaining.
Working in groups, whether during a lesson or after school (e.g. for homework assignments) as it helps to be more involved and feel like you are actually participating in the lesson rather than just listening to it.

Table 17. Methods most like during remote learning: UK

British students
Watching videos, notes from teacher about the lesson'
Reading the course material and audio and video discussions are interesting ways to learn / Online quizzes are helpful in checking my understanding of a subject and highlighting what I need to review again / Receiving detailed feedback on assignments from my tutor is very helpful for improving my future essay writing skills / Independent study - I enjoy having the opportunity to research the subject in depth and utilise library resources.
Voice recordings to explain the lessons.
A designated study space helps massively, which unfortunately not everyone has access to at all times. Having access to the study materials out with the designated lesson time is a great benefit to those who may not have an optimal study area at that specific time.

Lithuanian students stated preferences for working in groups and project work and also the use of slides. Interestingly, one respondent stated that they considered group work to be useful in reinforcing understanding, either during the lesson itself or as a study group after the lesson had finished. Students in the United Kingdom thought that video presentations were important, and also good post-assignment feedback from tutors helped the learning process. Also, conversations between teacher and students are useful in checking progress and understanding.

Almost 80% Lithuanian and 60% British students stated that their educational establishments offered resources. British would not have chosen remote learning (44%) if there was no pandemic, the same number of Lithuanians are not sure. 23% of Lithuanians would choose it, 32% of British would.

Results, Conclusions and Recommendations

The concept of 'remote' or 'distance' learning is clearly not new in itself, although it can certainly be said that the Covid 19 pandemic has accelerated its use on a much wider scale than before. It is also clear that use of this method of delivery, even as the societal restrictions imposed by the pandemic ease, use of

this method of delivery will continue at a level which is higher than that which existed prior to the pandemic.

The following recommendations and suggestions could be drawn as a result of this study, whilst acknowledging that current attitudes may depend to some degree on the extent and nature of previous use within particular countries.

It is a given that teaching staff and students have ready access to reliable internet services and adequate and reliable information technology equipment. They should also be given effective training in using such tools as Teams and Zoom and other platforms as may be required. For both teaching staff and students working from home, a suitable quiet place in which to work was also considered to be an essential element for success in remote teaching and learning activities. It was mentioned in the Harvard University Study that it was important for a flexible approach to lesson delivery be maintained by tutors, as remote learning would certainly be a new concept requiring some level of adaptation to. Also, it could not be assumed that all students would be learning in the recommended individual circumstances.

There were held to be certain advantages inherent in remote learning delivery, including those of removing the need for (possibly lengthy) travel to a physical location and an increased level of flexibility of access to students. It is however important to ensure, for effective delivery, that subjects chosen are in fact suitable for this method (there being obvious limitations on the remote delivery of some practical subjects) and that some basic principles are followed. These are that the maximum hours of remote teaching on a daily basis should be no longer than 4 hours, with preferably a longer break in the middle of this period, Also, no single session should last longer than one hour without a shorter break. This last factor was mentioned by P. Henshaw as being a prime factor in helping to aid concentration and reduce fatigue and subsequent inattention.

The use of a variety of teaching methods was also considered to be an essential requirement for effective delivery, with particular reference being made to both supported and independent investigations, video presentations, discussion, PowerPoint presentations, the use of quiz website tools, 'breakout rooms', question and answer and lecture notes being visible to students during lessons. Students also recommended that 1-1 support should be available by arrangement to supplement the class sessions. Teaching and learning material should be devised with remote learning in mind (which may initially take more preparation time than for conventional lessons), be well organised and be available to participating students at the end of each session. Students felt that if teaching staff were able to use their 'natural' teaching style and manner, this would also help lesson flow and effectiveness of delivery. In addition, where tutors clearly state their commitment to a supportive approach, a study at the University of Central Florida found that 'perceiving their instructors as supportive of their academic needs is associated with lower symptoms of depression, anxiety, and academic-related stress'. Lower levels of stress and anxiety would help to promote improved academic performance.

It was noted that it was felt by approximately 50% of teaching staff and students that there should be at least some opportunities for 'in person' contact at various times so that personal connections would not be entirely virtual in nature (this is standard in many, but not all, Open University courses in the form of one-week 'summer schools' and/or monthly evening tutorials). This would go some way to counteract possible feelings of isolation between both staff and students, as would the use of even virtual 1-1 support.

It was noted that the key points evident in the summary, with particular reference to access to technology, variety of delivery methods used and the elements of personal contact within this medium have been noted in the UK Government 'Remote Education Good Practice' document (GOV.UK Guidance, Remote Education Good Practice, latest edition March 24, 2021).

Should these recommendations in this paper be considered and used, there is every chance of the remote learning method providing an effective, enjoyable and constructive learning experience.

Limitations of the study

The study could have reached a wider spectrum of respondents not only in Lithuania and the UK, but also in the whole world. Also, the number of respondents could have been expanded to search for more

optional findings. Moreover, the wider spectrum of respondents could have been used as the main factor of survey. Also, as it is initial research, more research should be conducted in the future. To maintain the continuity of the survey, it is planned to carry out additional surveys in the future.

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