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### Question

To what extent does remote learning impact on the development of learners in Further Education?

#### Title

Let's get critical about remote learning....

#### Abstract

There is a wealth of studies around critical thinking through assessment and instruction. Ennis (1993) identifies this as the "goal of education". This study explores critical thinking as a trait used in "any circumstances" (Elder & Paul 2010).

In the study, qualitative data-based research is used with a selected cohort of post 16, further education learners to discover perceptions regarding their approach to their studies whilst learning remotely.

Additionally, the same research method is used with teaching staff to investigate any difference between their perceptions in the impact of learning remotely and that of their students.

The intention of the research is to explore possible influencing factors in whether students taking a more independent approach to their study impacts on the perceptions of development of skills such as critical thinking.

My interest further explores the value of connectivism (Siemens, 2004, Kop & Hill 2008) and to what extent the concept has as a theory in the digital age for remote learning over seminal pedagogical theories.

Exploring the perceptions of the impact of remote learning on post 16 learners leads to opportunities for closer inspection of teaching and learning methods that could support the development of critical thinking skills through remote learning.

**Key words** - critical thinking, connectivism, remote learning

#### Introduction

Zager and Evans are known for the lyrics that begin, "In the year 2525" and their reflection on the consequences thereafter (Evans, 1969). That was more than 50 years ago, and their words are still ringing in our ears. In another 50 years, educators, will be known for a different set of lyrics that begin, In the year 2020...and reflecting on the consequences thereafter.

2020 was the year that the world, not only stopped, but education was brought to its knees.

"We stopped when the world made us stop. We stopped and we reflected" (Murdoch, 2020). A new language evolved. Unprecedented was a firm favourite. We existed in bubbles and words such as isolation, social distance and lockdown were there to protect us.

Remote learning was suddenly not distant, and technology enabled us to get closer, making education still accessible. "To be educated is not to have arrived at a destination; it is to travel with a different point of view" (Peters, cited in Biesta, 2017, p.13).

If the destination is limited to an arm's length of a monitor, how much do we travel through remote education? We can consider if the path travelled arrives with a different viewpoint and how critical the viewpoint is.

By using technology, and without the audience of peers, this report will investigate to what extent teaching and learning remotely impacts on development of FE learners.

The intention of the study explores possible influencing factors on the development of students' approach and application to their studies through increased remote teaching and learning.

Development of skills such as critical thinking will be explored and issues such as opportunities and challenges impacting on these skills through an increased independent approach.

Research is needed to explore if the change in the structure of the learning environment impacts on engagement which could lead to opportunities for future development of curriculum design within further education.

#### Literature review

The sudden impact of lockdown meant we did not have the luxury of developing teaching materials purely for an online environment. Instead, teachers had to react quickly to an unknown educational environment. As a result of the pandemic, teachers were faced with a blended approach of a "well-planned online learning experience" and emergency remote learning which are not the same (Hodges et al, 2020).

If consideration is given for students' application to learning, we should consider student behaviour, the environment and differences between how students may behave in a physical classroom to that of a virtual environment. This study will seek to review student behaviour in the enforced remote learning environment.

The argument between behaviourists and constructivists is not new. Weegar & Pacis (2012) compared the theories of behaviourism and constructivism applying these to learning in physical and online environments. Their study sought to identify the differences and links in how children learn recognising that "In education today, there continues to be considerable debate as to whether teachers practice behaviourism, the dispensing of information through direct instruction or through constructivism, the practice of being facilitators of learning" (Weegar & Pacis, 2012 p.16).

These theories are important in academia, however, accessibility to technology appears to give constructivists the edge noting constructivism led to the development of critical thinking (as cited by White-Clark, et al., 2008, p.42).

#### Connectivism

It may be simpler to utilise the seminal, pedagogical theories in a virtual environment. For example, the behaviourists are useful in reflecting how students learn and any environmental and motivating factors. Watson attributed responses to experiences therefore it is hoped the virtual environment is a positive one with effective learning and development taking place rather than any negative experience reminiscent with furry animals and loud noises (Watson & Rayner, 1920 p.8).

Later, Skinner's study on the use of teaching machines, identifying the benefits of a learner's active participation, immediate feedback and being "free to progress at his own speed" (Skinner, 1958 p.8) can be comparable to learner engagement through technology and use of educational software today.

Likewise, the constructivists' recognised knowledge was built upon through active, social collaboration. Vygotsky (1987) is credited for saying "through others we become ourselves" (p.105) and we can aim for such collaboration through active engagement in an online or remote learning environment.

Additionally, the cognitivists support 'thinking' about the learning and how it is actively received. Piaget's (1952) belief in striking a balance of the processes he identified as 'assimilation' and 'accommodation' requires learners to be active participants for learning to take place. This will have been tested by how previous

experiences of learning (assimilation) is perceived and subsequently adapted in a remote learning environment (accommodation) and how skills such as problem solving are developed through these processes (McCleod, 2016).

All these theories may apply but let us consider the somewhat controversial theory of connectivism. Duke et al (2013), argued whether connectivism exists as a theory or merely a pedagogical view, and following the reliance on technology during this study this concept will be explored further.

Siemens (2004) first identified connectivism as "the integration of principles explored by chaos, network, and complexity and self-organization theories" explaining the principles were useful in the transference of "organisational knowledge" (p. 5) that the traditional theories of behaviourism, cognitivism and constructivism could not support.

Later, Kropf (2013) studied the use of Internet and online platforms as mediums for study and learning, concluding connectivism has a "dual role in education" combining learning and instructional theory with parts of behaviourist, cognitivist and constructivist theories combined (p21). Kop & Hill (2008) sought to confirm connectivism as the learning theory of the future and, like others, share Kropf's (2013) view that connectivism is a blend of the three theories rather than a theory in its own right.

Siemens (2004) argued the traditional theories did not reflect the newer, digital age for learning. He discussed that "chaos is the breakdown of predictability, evidenced in complicated arrangements that initially defy order" and that "connectivism is driven by the understanding that decisions are based on rapidly altering foundations" (p.5).

In agreement, Foroughi (2015) focused on what can be achieved through the development of technology and that it was time for a new theory that guided learning in the technological age, suggesting connectivism was useful in this.

Whether connectivism is a theory or pedagogical view is yet to be decided. Whatever the outcome, connectivism may simply be evolving through rapid development and use of technology in education.

It may be the sudden switch from classroom-based settings to online and remote settings from the onslaught of the pandemic have laid the foundations for dealing with the "chaos" that many pedagogical establishments found themselves in as a "rapidly altered foundation" and connectivism is the way of formally identifying this.

Is it that connectivism has existed for the past fifteen years without the need for concrete affirmation? The impact of remote learning on the learner will be explored further.

#### Critical thinking

Critical thinking is a broad term, attempted to be defined by several researchers. Elder & Paul (2010) identify it as "the disciplined art of ensuring that you use the best thinking you are capable of in any set of circumstances" (p.1). Ennis (1993) defines

the concept as "the correct assessing of statements" going further to link critical thinking assessment to the higher levels of Bloom's Taxonomy. Ennis' attempt is well considered however he concludes the concept is vague.

Bailin & Siegel (2003) suggest "Critical thinking is, first and foremost, a variety of good thinking" which is interesting, however not that simple and 'good' is too vague unless adequately explained (p.181). The flaw in Bailin & Siegel's concept is that 'good' denotes a level of 'skill' and while establishing critical thinking is regarded as a "fundamental aim, and overriding ideal, of education" (p.189) the acquisition of 'skill' leads to further debate.

Halpern (1997) defines critical thinking as "the use of those cognitive skills or strategies that increase the probability of a desirable outcome. It is used to describe thinking that is purposeful, reasoned, and goal directed" (p.4). This thought process is clear in intent, maintaining the argument for 'skills' rather than a mindset.

Whist Huber & Kuncel (2016) appear to agree the importance of critical thinking, concerns are raised that teaching these skills reduces time available for "other important skills such as reading and mathematics" rather than complementing the curriculum. I would disagree, given that college is useful in preparing learners for employability and critical thinking is useful, not only in education, but in the workplace and life thereafter.

Thinking critically can be further simplified as an independent mind and inquiring attitude resulting in the 'way of thinking' reinforcing Siemens' view that connectivism brings about "critical, thoughtful views". In a digital age where the ability to see connections between "ideas and concepts" and differentiate between information that is important and what is not, critical thinking are core skills that should be developed (Siemens 2013).

Finally, Swartz & Perkins (2017) preferred to simplify, categorising problem solving and decision making as processes that required 'thinking' whereas the 'how' in thinking is where critical thinking takes place.

#### Research methodology

#### **Qualitative case study research:**

With my research focusing on the impact of remote learning, qualitative research was considered an appropriate research method.

Google Forms was used to disseminate a survey question as a simple, but effective way for the research to be conducted.

1<sup>st</sup> year and 2<sup>nd</sup> year, level 3 learners from the 20/21 cohort enrolled on a travel and tourism vocational course, were selected as the case study group for student respondents. Within the cohort, some students had experience of a blended learning approach, others had little to compare it to in a college setting.

In addition to students, research was also gathered from six departmental tutors. Some tutors were directly from the vocational area of the student group, others specialised in catering, hospitality and sport.

For the survey, respondents were asked one structured question with the opportunity to answer freely to gain qualitative feedback. The link was emailed, shared on Microsoft Teams to anticipated respondents and answers were collated anonymously.

Rather than Coffield's (2009) nicknames, student or tutor views were incorporated into the text using a letter and number method based on the single time of entry the respondent gave, e.g., S1 was the earliest student respondent, T6 was the latest tutor respondent.

Coding of the data, to look for themes for analysis was a possibility and in producing findings with some quantitative data, however my focus was on the qualitative data, and to compare the students' responses to the tutors' responses.

Through Google Forms, **students** were asked the question:

'How has being taught remotely, using digital technologies, impacted on your approach to your learning'? (Appendix 2)

Similarly, **tutors** were asked the question:

'In your opinion, how has being taught remotely, using digital technologies, impacted on your students' approach to their learning'? (Appendix 3)

Site	Participants	Research method used
Further	30 learners	Qualitative survey:
Education	(23/30 respondent rate)	30 learners studying travel and
College, East		tourism.
Midlands		
	6 tutors	Qualitative survey:
	(6 /8 respondent rate)	8 tutors from tourism, catering and
		hospitality

#### What was planned (the intervention)

My plan was to conduct research into the impact of learning remotely. Having been thrown into a total digital approach, brought on by the pandemic of 2020, meant nothing had been planned for digital learning, resulting in an emergency remote learning capacity.

The research took place while working as a travel and tourism lecturer at a Further Education College based in the East Midlands. The research was conducted with a range of post 16, FE learners, on a level 3 travel and tourism vocational study programme.

The research was also conducted with FE lecturers from within the directorate of the tourism, catering and hospitality sector during academic year 20/21.

#### Timeframe:

Date	Oct 2020	Nov 2020	Jan 2021	May 2021	June 2021
Phase 1 –					
research question					
Phase 1 –					
literature review					
Phase 2 – quantitative					
research					
Phase 3 – key					
findings and					
recommendations					

#### What was expected

Without the luxury of time for forward planning, educators have taken great lengths to recreate the classroom environment resulting in emergency remote learning. Lessons continued in the same way as scheduled for the physical environment with students expected to attend each timetabled lesson, albeit in the online environment.

I expected to determine any influencing factors that had an impact on how students approached learning remotely and how this could be explored further to enhance the experience of remote learning and the development of critical thinking skills.

#### **Ethical considerations**

#### Consent

Research was through voluntary participation. Participants involved were informed allowing consent for participation and parental consent where required.

#### **Transparency**

Openness and honesty for research purpose ensured avoidance of conflict of interest and compromise of objectivity.

#### Right to withdraw

Participants were informed of their right to withdraw at any time and provided with the author's contact details.

#### Harm arising from participation in research

Consideration for the treatment of participants was acknowledged and respected. Names were not required protecting anonymity.

Employer identification was generalised to a geographic area.

Age and vocational area were possible distinguishing factors however the research was in a generalised pedagogical context rather than specific study area.

Research responses were possibly distinguishable between staff members and students but not as individuals. Any distinguishing responses were redacted.

#### **Privacy and Data Storage**

Qualitative data was securely stored electronically in line with guidelines of the UK Data Protection Act (1998) and GDPR.

#### **Disclosure**

The researcher was under statutory obligation of duty to disclose behaviour deemed harmful to other participants to the relevant authorities.

Although this research was funded by the Education and Training Foundation (ETF), in no way was the conduct of the research and its outcomes influenced by the Foundation.

#### **Data Analysis**

Initially, what I found interesting in this study was how part of the survey question was not interpreted as expected. In investigating the '*impact on the approach*' to *learning*', it appears '*approach*' was not given as much consideration as anticipated.

This challenged my hypothesis. I was immediately drawn to the view that independent critical thinking skills were not as evident as anticipated, reinforcing not disputing the views of Halpern, Bailin & Siegel that these are skills rather than a mindset.

All students considered the impact of learning in a remote environment however, only 5 of the students' responses reflected critically on their *approach* to learning in a remote environment and their subsequent actions.

S1 finds, "I can work at my own speed and without distraction. It has meant I have had to read things twice which helped my learning" while S15 acknowledges, "I also developed my problem-solving skill because sometimes teachers isn't available to answer a question so we need to figure it out".

S7 discovers, "Working in my own environment is more comfortable and it gives me more motivation because I have a dedicated workspace". S8 recognises an appropriate mindset stating, "I would always prepare myself for the lessons - sit behind my desk, wear the correct clothing (not pyjamas!!) and be ready for the lesson, and engage as if we were in a classroom".

Of tutor responses, the imposed learning environment was considered a factor above everything else and acknowledgment evidencing adaptation to students' approach to learning appeared limited.

Energy levels, lack of peer interaction and available technology were areas of concern. T4 reasoned, "the motivated students are making good progress, for the remainder they lack motivation to adapt their approach and therefore achieve".

7 student respondents directly identified motivation as a factor. 3 out of 7 respondents identified motivation positively with S10 remarking, "I enjoy using the technology and i am just as motivated".

Conversely, 38% of student respondents found motivation negatively affected with S12 stating, "I have found it harder to get motivated" while S21 simply said, "I hate remote learning but I have to deal with it".

In relation to students' approach, T1 stated "they are doing their best, but it's not ideal" while T3 stated, "for a practical kinaesthetic learner it is alien and they have to adapt to the 'new way of working". Here, remote learning was seen as a barrier.

With the sudden reliance on technology, reactions to internet access and hardware were an inevitable concern with regional coverage unpredictable in some areas.

T4 identified, "About a third of the group have problems with poor technology, Wi-Fi/internet is patchy, and they lack basic IT skills".

The college offered students loaned laptops and dongles for internet access where required. 17% of student respondents blamed poor coverage and a lack of hardware as a barrier to remote learning, however, departmental administration reported only one student utilised these resources to support their remote learning.

Finding the balance between home and college life was identified. Early bonuses identified by S8, "I thought it would be amazing. I could sit in my bed and watch TV or play games during the lesson" were dismissed once the realisation of engaging in a remote classroom set in and, "you need to treat it as an actual lesson".

The inability to speak to a tutor in person featured with the physical classroom environment preferred. S22 reflected, "I went into college on a day I was doing remote learning and actually doing the lesson as college really helped me".

S22 raised an interesting point, in that it was not the change of environment that supported autonomous learning but S22 connected remotely to the lesson amongst peers physically present, resulting in enhanced engagement.

With little evidence of critical thought applied to the students' approach to their learning, it may have been predictable that use of the college's VLE was minimal. Some students used apps to stay connected, mainly for social group interaction rather than the "technology and the aids" for development of the learning process or the personal knowledge flow through networked connections (Siemens 2004).

Siemens states "connectivism is the social connected process of learning" (2013). Students had opportunities for connected learning through MS Teams and developing communication skills and collaborative learning using breakout rooms and discussion.

The graphs below record 1<sup>st</sup> and 2<sup>nd</sup> year cohort VLE usage between September 2020 to May 2021. The VLE content includes tutor uploaded content, discussion boards, quizzes and YouTube for learning.



(Image: Canvas Weekly Online Activity. 1st Year L3 Certificate, Travel and Tourism 20/21)



(Image: Canvas Weekly Online Activity. 2<sup>nd</sup> Year L3 Diploma, Travel and Tourism 20/21)

Siemens identifies that "technology and the aids we use, are part of our overall process" (2013) so, if these opportunities are not being utilised, connectivism is falling short. Other than a few peaks, the graphs almost flat line on usage confirming work is required to improve this in the future.

#### **Key Findings**

Some respondents focused on the challenge of working remotely and learning during lockdown rather than thinking critically in considering the question of impact on the *approach*. The findings provided no evidence of how, or if, respondents had considered their approach in a critical way. On reflection, explaining what was meant by 'approach' or rephrasing the question may have provided clarity.

Emergency remote learning came from the pandemic situation, for which we were unprepared, resulting in an unbalanced view. Much of the content responses appear to have judged learning through the absence of physical, social interaction and 'remote' seemed to be taken in this context rather than providing evidence of how communication and interactions were managed online.

Rather than considering the opportunities for developing independent thinking and collaboration using technology as a pedagogical tool, education became entangled with the restrictions caused by the pandemic and remote learning was viewed as a temporary measure, a sticking plaster, for the physical classroom.

By investigating the development of critical thinking through remote learning, validity of the approach to learning both in the physical and the remote environment is brought into question. When issues arise from learning remotely, the cause is likely to be voiced due to the unusual circumstances rather than suggesting a lack of critical thinking skills is a factor from teaching in the physical environment. We may simply be assuming that the unusual situation is the contributory factor rather than highlighting the approach to teaching and learning in general as the issue that requires addressing here.

Remote learning has almost created a distraction, but for different reasons. We are used to teaching in the physical classroom, so we fail to see the issues. We assume that in 'getting back to normal', these issues will disappear, however, we are likely to be disappointed.

#### Recommendations

Critical thinking is expected but not supported.

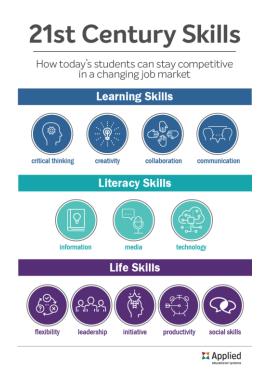
As educators, we need to reflect on this and question how much we support our learners in the development of this skill. We cannot expect students to demonstrate this without direction, nor to have the necessary ability to distinguish between the "important and the unimportant information" (Siemens 2004) and when new information "alters the landscape" of learning.

Continuous development of Critical Thinking along with Creativity, Collaboration and Communication (the '4 Cs' Learning Skills) and the full range of 21<sup>st</sup> Century Skills (Learning, Literacy and Life Skills) within the curriculum are vital in supporting effective remote learning and progression from vocational study at college into the workplace thereafter.

Equally, it is often assumed learners bring a rudimentary level of competency in digital Literacy Skills however this study has identified this requires further support and development.

Socio-economic issues surrounding digital hardware require early intervention to ensure needs are met and planned for. Addressing vulnerability towards digital poverty allows learners the best opportunity for a positive start to their learning.

We have seen Life Skills tested through this study in the way emergency mode remote learning was introduced and these continue to require development for students' personal and professional progression.



(Image represents 21st Century Skills, AESEducation. Stauffer 2020)

The remote environment highlights engagement and disengagement supporting Lang et al's dual process model of self-determination theory and impact on engagement (2016). Scales of motivating styles, motivation and engagement were identified in the model and a number of these were prevalent in this study. Amongst others, 'emotional disengagement', 'autonomy need frustration' and 'cognitive disengagement (p31) was apparent from respondents.

These findings present opportunity for further investigation and analysis for better understanding of learner development and engagement in the physical, and remote learning environment.

Connectivism represents a learning model that has moved on from being an "internal, individualistic activity" (Siemens, 2004). As remote learning shifts from emergency mode to a planned approach for the curriculum, the mindset around this method of teaching and learning must change. Educators need to recognise the stage they are at with connectivism to truly incorporate it alongside seminal theories. Siemens accepts education has been slow to acknowledge the impact of newer learning tools and the time for implantation of change is now.

Further investigation and application of Connectivism requires development and enhanced use of technology and VLE platforms to enable learners, and tutors, to "flourish in a digital era" (Siemens, 2004).

Educators should reflect on their resources, curricula, and digital skillset, making the most of training and learning opportunities presented in alternative ways for maximum engagement. In failing to seize the opportunities this period has given us we will only have ourselves to blame for stagnation within education.

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#### **Appendix 1 - Dissemination strategy**

My findings will be shared through practitioner Learning and Teaching (LAT) days at the end of the college term where practitioners gather to disseminate research undertaken during the academic year. The research supports the college's vision in development towards the quality and relevance of the education provision.

Findings will also be disseminated through Joint Practice Development (JPD) via researchcollegegroup.co.uk where knowledge can be exchanged with other colleges to support development of education practices in Further Education along with Higher Education.

#### **Appendix 2 – Student Question Survey**

#### https://forms.gle/fKDhLLTcjHdAfrg8A

02/06/2021

The impact of learning using technology

# The impact of learning using technology

As part of my ETF-SUNCETT Practitioner Research Programme, I am conducting research into the impact of learning remotely and the use of technology as part of this process. Please answer the question below and give an explanation in as much detail as possible. Your answer will be anonymous, and you have the right to withdraw from the research at any time. Your response will help to provide me with really important information to analyse and inform practice. Thank you for your time.

pproach to your learning?

This content is neither created nor endorsed by Google.

Google Forms

#### **Appendix 3 – Tutor Question Survey**

#### https://forms.gle/4zMZqsnmGCCacjMc6

02/06/2021

The Impact of remote learning on critical thinking

# The impact of remote learning on critical thinking

As part of my ETF-SUNCETT Practitioner Research Programme, I am conducting research into the impact of remote learning on the development of learners in FE and am interested in your views as educators.

Your response will help to provide me with really important information to analyse and inform practice.

Your response will be anonymous and you have the right to withdraw from the research at any time.

Thank you for your assistance.

#### The impact of remote learning on the development of learners in FE

As part of my research, please answer the question below and give an explanation in as much detail as possible. Your response will be anonymous, and you have the right to withdraw from the research at any time.

1.	In your opinion, how has being taught remotely, using digital technologies, impacted on your students' approach to their learning?

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# Appendix 4 – Student Responses

Timestamp	How has being taught remotely, using digital technologies, impacted on your approach to your learning?
1/19/2021 11:51:11	It has been good for me as I can work at my own speed and without distraction. It has meant I have had to read things twice which helped my learning.
1/19/2021 11:51:51 1/19/2021 11:56:37	It's ok, harder to concentrate in lessons as can be distracted a lot easier  I find it harder to learn and interact with the material
1/19/2021 12:03:08	More difficult
1/19/2021 12:10:14	More difficult due to the fact that I had problems with my internet then with my laptop itself and after the College systems went down Christmas till now I still haven't been able to access teams or moodle as I don't have a password and it would not let me reset it myself. I have emailed the IT department but I have not received any emails back. This has affected my learning and the ability to stay on top of work alongside not knowing where we are at in the course and harder to keep in touch with teachers through email constantly since I am more of a face to face interaction kind of person than through emails. At the start teams was easy to use but as time pass by it created many unforeseen problems and situations making learning more difficult and harder. However if all of this did not effect my ability to learn remotely I would not of had a problem with it. Maybe going in once a week might be more beneficial or a assigned timetable of what we have to complete by the end of the day assigned by the tutors (checklist)would be a really good way to get back on top of work; by that I mean check list for all and not catered individually.
1/19/2021 12:14:16	It has been difficult and it is a lot to get used to, however, it is possible and I am still learning
1/19/2021 12:15:54	I have adapted well to the change and I'm surprised at how effective it has been. It is different to anything I have ever done before but I am enjoying how it is going and I think it's a great way of learning. Working in my own environment is more comfortable and it gives me more motivation because I have a dedicated work space.
1/19/2021 12:19:56	Being taught remotely has completely changed my perspective on learning, and I've had to adapt areas of my mentality towards learning. I have always been a student that would thrive in the school environment, often participating in group discussions and I would always complete work when there were teachers present. One of my weakness as a student is the ability to work independently; I would always procrastinate, and before I mainly did my homework when I

	was at school, because I have too many distractions at home.
	Learning remotely has been a huge challenge and something I never knew I was going to encounter. At the start of this new "era" of learning, I thought it would be amazing. I could sit in my bed and watch TV or play games during the lesson. However I soon learnt that this is not the way to treat online learning. You need to treat it as an actual lesson.
	After that point, I would always prepare myself for the lessons - sit behind my desk, wear the correct clothing (not pyjamas!!) and be ready for the lesson, and engage as if we were in a classroom. It is hard for the students, but it is also important to remember it is hard for the teachers also, some/most haven't taught in this kind of setting before. As I said previously, working independently has always been one of my weaknesses, and it is something I am still working on, even 4-5 months into this online learning journey. I feel more settled when learning online now than before before it was a new thing but I am getting the hang of it now. For me personally, I need to realise that the work isn't as stressful as I make it out to be, and realise when it is okay to have a break (We don't need to be working on our assignments ALL the time).
	Learning in this way can be easy or hard depending on which course you do. For example, it isn't possible to do practical assignments that we would usually do in the restaurant, or other group activities. But the element of doing coursework behind your computer is the same as before.
1/19/2021 12:38:36	It hasn't effected me, I'm still learning the same and my teachers are very clear when communicating
1/21/2021 10:04:28	I have found it to be helpful and easy, we still get the same attention as we would in person. I enjoy using the technology and i am just as motivated, yet more, to study as i would be attending college in person.
5/13/2021 10:06:28	Its been difficult for me.
5/13/2021 10:07:47	I have found it harder to get motivated, and easier to get distracted.
5/13/2021 10:09:18	Being taught remotely has been a bit challenging, and has made the balance between home and college life hard to find. Working online is different than working face to face making it more challenging, however I am still learning and trying my best to take it all in.
5/13/2021 10:20:03	At first I didn't mind remote learning. But now I would prefer to be in college learning, its getting in to the routine again and its hard. If we was in college the amount of time we spent online I personally think my routine in the week would be better, and

	my work would be done and have the rest of the week to do my own things and work, it hard to juggle it all at once being online. Using IT has been okay because i'm quite up to date with it, but if I wasn't I think id struggle. I am lucky enough to have a laptop to work on, for people who didn't they may find this hard.  I think being taught remotely and using laptops etc has had
	an impact on me, I think its gave me a chance to think about what I want to do in the future and its also made me think not
	to take the time at school and college in education for granted. Unfortunately we have missed so much of school and not done our goses missing this time is very important,
	the best way to keep on top of it is online but this can also be hard. its hard to focus at home when your not in a learning environment.
5/13/2021 10:23:30	By learning remotely we have more freedom, we can sleep in a bit later especially students who are taking bus to college. Students can learn on their own which may be beneficial if they can't concentrate in classroom, we take our time to finish assignment. I also developed my problem solving skill because sometimes teachers isn't available to answer a question so we need to figure it out.
5/13/2021 10:25:11	I feel like it has made me lazier and more distracted, usually I am well organised when it comes to my work but lately I feel like I have been leaving it to one side or doing a little and leaving the rest. I think that this could be because home and college are two completely different settings so to have all your lessons on a laptop at home for all this time makes me feel more drained than actually coming into college.
5/13/2021 10:32:20	It's been quite difficult for me doing it online, I found it hard to ask tutors questions as it's easier to in person, as well as them helping with work. Although, the tutors do help over the call, in my personal opinion, I feel as face to face help and communication is better when tutors explain assignments and work to me as it motivates me to do it there as well. Also, using an iPad is hard when the battery always dies after the call ends leaving me no time to do assignments that dat until it's charged, so I very regularly have problems with the technology side of it.
5/13/2021 14:17:16	It's made me appriciate face-to-face learning a lot more.  Mainly because working online, there are multiple distractions which ultimatley will affect my learning compared to if i was in a face-to-face environment.
5/13/2021 14:18:29	I hate having to work remotely because I feel like It has made me behind on work because I can get distracted very easily, and I learn better being in the classroom, and I feel like because the teachers have so many other people to concentrate on you don't get the 1-1 help that you would get if you was in the classroom. I just like being in a classroom and

	I just really hate working online.
	from XXX
5/13/2021 14:20:30	I feel like working online has made me fall more behind than if I was actually In college, because of all the distractions aswell as sometimes struggling to understand emails. I personally think the tutors I've have had has been amazing at giving us support during online sessions so I can't fault that. It's just the struggle with things like the WiFi and also finding a balance of working online in lesson and then doing work on the computer after without loosing motivation etc
5/13/2021 14:20:49	it is RUBISH, I get distracted all the time at home, I would rather be in college all day everyday, I would enjoy it more. I find myself getting distracted by little things such as the fridge, if I see something whereas if I am in college I will be able to focus 100% on the task in hand. I always try my best. At the start of they year my wifi want the best but not it is better. Being home all the time doing my work in my room really frustrates me because when I want to ask a question it is difficult if someone else is asking a question it annoying whereas in college you can ask a question easily. I am a people person and like talking to people in person. I hate remote learning but I have to deal with it and that is what I am doing. From XXX
5/13/2021 14:20:57	Remote learning has impacted my learning in a way that my wi - fi isn't always the fasted meaning that my calls can sometimes cut off and miss bits of important information, I also don't feel as motivated compared to when I actually go into college, for example last Thursday I went into college on a day I was doing remote learning and actually doing the lesson as college really helped me.
5/13/2021 14:21:14	I feel a bit less motivated to do work than I would in an actually classroom because the environment is very different and there are a lot more distractions but when you get used to it it isn't too bad

# Appendix 5 – Tutor responses

Timestamp	In your opinion, how has being taught remotely, using digital technologies, impacted on your students' approach to their learning?
2/5/2021 14:08:48	It varies as my students do a practical course, they are doing their best but it is not ideal and do not have access to ingredients and equipment. Theory is being undertaken and the attendance has been good. They miss seeing friends and the interaction. The standard of the written work all round is good but they are missing deadlines. When i speak with them about learning in lockdown they say they feel tired all the time so energy levels generally are low.
2/5/2021 14:18:51	I believe that it has impacted on their learning as, for the majority of them, they are finding it difficult to think outside of what they are being taught at that moment, or sometimes to actually focus on what is being taught. So, they are struggling to maintain focus, let alone to subject themselves to critical thinking.  Also, when they are actually thinking about different things, and carrying out any critical thinking tasks, there is no way of knowing that they are actually carrying it out, not just because they are not on screen, but they may be accessing the internet to get information instead of actually thinking for themselves.  At least when they are in a physical classroom environment, you can see them doing what they are meant to be doing.
2/5/2021 15:45:43	The impact for my students is that is magnifies the student mindset, a student that wants to do well and is thorough in their studies tends to go that little bit further with set work and get the work in early, the students that are standard or average tend to stay as they are and crack on with the tasks given to them, then the students that tend to be tardy, lack motivation and have poor attendance become worse, poor work with no thought of consequence for their actions. Overall there are students that are relishing the chance to spend time on their work output from an environment that is familiar, on the other side of the coin there are students that prefer the interaction face to face with peers to stimulate their thought processes and ideas. There are positives and negatives to remote teaching but I find that the delivery is like the tip of the iceberg or Swan like as an analogy, for the tutor there is a lot of preparation and planning before the delivery, the delivery (some times with all its IT issues, students with substandard hardware and the Wi-Fi!) and then the evaluation of the lesson and assessment/feedback (electronically) to generate, 3hours work for a 30 minute lesson. The impact for the students is that differentiation is magnified to counteract increasing delivery issues, leading to a subject that would take a couple of weeks to process

	taking twice as long to achieve with the same comprehension. The more we do remote delivery the more the students understand and engage with it, the more they become familiar with a way of working the more they produce, this said for a practical kinesthetic learners it is alien and they have to adapt to the 'new way of working' very quickly to stay afloat.
5/13/2021 20:51:13	For some students they have made good progress, and their work is of good quality, and they are achieving high grades. About a third of the group have problems with poor technology, Wi-Fi/internet is patchy, and they lack basic IT skills. The remainder of the students have good attendance but are reluctant to take part in the sessions. For those reasons the motivated students are making good progress, for the remainder they lack motivation to adapt their approach and therefore achieve.
5/14/2021 7:14:30	Yes, both positive and negative
	Being taught remotely, using digital technologies, has had both positive and negative impacts on students' approach to their learning. Those students familiar with digital platforms and in possession of compatible IT resources have had an advantage as their ability to access and function has been unbroken. However, the complexities of their home environment, regardless of their equipment and resources, can still impact on their individual approach – distractions at home, responsibility for siblings, lack of the college ethos and group contact can all contribute negatively – it's easy to switch off without the tutor – student relationship being physical present.
	In the same vein, those who are disadvantaged through lack of IT resources and familiarity with platforms can feel completely lost within the remote environment and feel that they have lost out before they have even begun. Those learners who thrive in the face-to-face environment where your IT equipment and digital prowess is not as important to your learning experience.  Learners where the home life is not conducive to learning and domestic pressures and responsibilities take priority. Their safe haven
5/17/2021 10:46:22	will always be the on-site environment. If they are safe they will be more receptive and eager to learn.