

An Investigation of Online Distance Learning at Cranleigh

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Abstract

This investigation explores the implementation, as a pandemic response measure, of an online distance learning programme at Cranleigh School, an independent co-educational boarding school for secondary age students in Surrey, England. Reference is also made to some aspects of the online distance learning programme at Cranleigh Prep School.

A literature review is used to establish a number of conclusions about the implementation of online learning programmes. These findings are then compared to trends discernible in the responses to a questionnaire survey of three year groups (Years 9, 10 and 12; IV, LV and LVI as they are known at Cranleigh).

Thematic analysis is used to investigate patterns in the responses of LVI students in greater depth. Particular attention is given to the connection between online distance learning and the development of independent learning skills. Conclusions are drawn about the conditions which underpinned the implementation of the distance learning programme and suggestions are made about the future development of online learning.

Introduction

This investigation uses action research to explore the development and implementation of an Online Distance Learning Program at Cranleigh School during the course of a period of school closure undertaken as a pandemic response measure between late March and July 2020. The investigation draws on a review of the secondary literature concerning distance learning in secondary schools and primary research in the form of data collection and analysis using online surveys of students.

The following research questions are addressed:

1. What does the secondary research literature tell us about distance learning?
2. What trends were observable in the response to distance learning amongst students at Cranleigh?

3. What conclusions can be drawn about the implementation and development of distance learning programmes?

Distance learning has been defined as a “*form of education in which the main elements include physical separation of teachers and students during instruction and the use of various technologies to facilitate student-teacher and student-student communication.*”¹

Online learning has been defined as “*education that takes place over the internet.*”² This can be subdivided into **asynchronous online courses** that do not take place in real-time and **synchronous courses** in which teacher and student interact online simultaneously.³

Blended learning is a hybrid mode of interaction which combines face-to-face in-person meetings with online interaction.⁴ As blended learning is a hybrid model, either the face-to-face or the online elements may be dominant. So, for example, blended learning can occur when online instructional tools are used to support face-to-face learning in a classroom, or when some face-to-face instruction is interspersed with online learning as part of a longer course.

A **virtual school** has been defined as “*an entity approved by a state or governing body that offers courses through distance delivery – most commonly using the Internet.*”⁵

Since, during the period of school closure that ran from the end of March until mid June 2020, almost all educational provision was offered through distance learning programmes, during this interval, Cranleigh constituted a virtual school under this definition.

Self-regulated learning will play a key role in the discussion that follows. Self-regulated learning has been defined as “*the modulation of affective, cognitive and behavioural processes*

¹ "Distance learning | education | Britannica." <https://www.britannica.com/topic/distance-learning>. Accessed 14 Jul. 2020.

² "Introduction to Online Teaching and Learning." <http://www.wlac.edu/online/documents/otl.pdf>. Accessed 14 Jul. 2020.

³ "Types of Online Learning - Fordham University." https://www.fordham.edu/info/24884/online_learning/7897/types_of_online_learning. Accessed 14 Jul. 2020.

⁴ *Ibid.*

⁵ Barbour, Michael K., and Thomas C. Reeves. "The reality of virtual schools: A review of the literature." *Computers & Education* 52.2 (2009): 402-416.

throughout a learning experience in order to reach a desired level of achievement."⁶ Self-regulating learners use their capacity for planning, managing and controlling the learning process.⁷ Processes that occur during self-regulated learning include goal setting, metacognition and self-assessment.⁸

Cranleigh's online distance learning programme drew heavily on synchronous provision, with a modified whole-school timetable being used to support regular interaction between teachers and students using Google Classroom with live interaction through Google Meet and Google Chat.

Within this synchronous framework, elements of asynchronous project-style assignments were used and there was flexibility for students to access Google Classroom assignments in their own time outside of lessons, or if they were accessing courses from a different time zone.

The Cranleigh Prep School online distance learning programme was not so directly reliant on synchronous programme; the normal timetable was flexed to allow pupils to complete assignments with some measure of control over time management. As the programme unfolded, more synchronous elements, such as Google Meets, were added.

This investigation focuses principally on the learning experiences of students in years 9,10 and 12 at Cranleigh. The programme of study for these year groups was designed to provide continuity of delivery of the curriculum, in contrast to the programmes developed for years 11 and 13, where a customized programme of study was developed to bridge the gap created by the withdrawal of national public examinations during the summer term of 2020.

⁶ van Houten-Schat, Maaïke A., et al. "Self-regulated learning in the clinical context: a systematic review." *Medical education* 52.10 (2018): 1008-1015.

⁷ Kizilcec, René F., Mar Pérez-Sanagustín, and Jorge J. Maldonado. "Self-regulated learning strategies predict learner behavior and goal attainment in Massive Open Online Courses." *Computers & education* 104 (2017): 18-33.

⁸ Loyens, Sofie MM, Joshua Magda, and Remy MJP Rikers. "Self-directed learning in problem-based learning and its relationships with self-regulated learning." *Educational Psychology Review* 20.4 (2008): 411-427.

Literature Review

The Efficacy of Online Distance Learning

Educators have traditionally expressed scepticism about the prospects of reproducing outcomes equivalent to traditional face to face instruction by means of online distance learning, according to Paul VanPortfliet and Michael Anderson.⁹ In a study comparing outcomes from online and hybrid courses, VanPortfliet and Anderson note that it is believed that academic achievement and retention are worse for students following distance learning programmes than for those being taught in traditional classroom settings. An explanation cited for this relative lack of efficacy traces it back to a lack of contact between students, their teacher and their peers in the online learning environment.¹⁰

That said, there is also evidence of equivalence across a number of outcome measures. A 2004 meta-analysis by Cavanaugh et al of 116 effect sizes measured across 14 K-12 web delivered distance learning programmes between 1999 and 2004 found that there was no significant difference in outcomes between virtual and face-to-face schools.¹¹

A 2015 study by Heather Kauffmann explored factors predictive of student success and satisfaction with online learning.¹² Kauffmann notes that several studies have found online learning programmes lead to outcomes that are comparable to those of face-to-face programmes.

VanPortfliet and Anderson note that research into hybrid instruction indicates that students achieve outcomes that match, if not exceed, outcomes from other instructional

⁹ VanPortfliet, Paul, and Michael Anderson. "Moving from online to hybrid course delivery: Increasing positive student outcomes." *Journal of Research in Innovative Teaching* 6.1 (2013): 80-87.

¹⁰ *Ibid.*

¹¹ Cavanaugh, Cathy, et al. "The effects of distance education on K-12 student outcomes: A meta-analysis." Learning Point Associates/North Central Regional Educational Laboratory (NCREL) (2004).

¹² Kauffman, Heather. "A review of predictive factors of student success in and satisfaction with online learning." *Research in Learning Technology* 23 (2015).

modalities. In particular, academic achievement by students in hybrid programmes is consistently higher than that of students engaged in purely online programmes.¹³

The ongoing discussion in the literature suggests that it is difficult to draw general conclusions about the efficacy of online learning as such, not least because it constitutes in significant ways a distinctive mode of learning when compared with real-world instruction. It is perhaps better, then, to look more specifically at questions such as the comparative strengths and challenges of moving to virtual schooling, the conditions which need to be in place for it to function well and the manner in which this transition is experienced by learners with different capabilities.

The Importance of Building a Learning Community

A helpful summary of research about online learning by Dr Jonathan Beale of the Tony Little Centre for Innovation and Research in Learning, Eton College, contains a summary of a series of principles concerning successful Online Distance Learning Programmes.¹⁴

Beale's summary explores research-based recommendations for effective teaching and learning practices in online and blended environments made by Judith V. Boettcher and Rita-Marie Conrad in their 2016 work *The online teaching survival guide: Simple and practical pedagogical tips*.¹⁵ A central emphasis of these recommendations is that successful online learning depends upon the formation of an online learning community, and this is only possible if there is regular online interaction between teachers and students:

“Why is presence so important in the online environment? When faculty actively interact and engage students in a face-to-face classroom, the class evolves as a group and develops

¹³ VanPortfliet and Anderson, *op, cit.*, pp 82 - 83.

¹⁴ "Research-based Effective Online Teaching Strategies – The" 5 May. 2020, <https://cirresearch.com/2020/05/05/research-based-effective-online-teaching-strategies/>. Accessed 14 Jul. 2020.

¹⁵ Boettcher, Judith V., and Rita-Marie Conrad. *The online teaching survival guide: Simple and practical pedagogical tips*. John Wiley & Sons, 2016.

*intellectual and personal bonds. The same type of community bonding happens in an online setting if the faculty presence is felt consistently.*¹⁶

The significance of relationship building is noted in the *Teacher Guide to Online Learning* published by the Michigan Virtual Learning Research Institute:

*“Creating a human-to-human bond with your online students, as well as with their parents/guardians and the student’s local online mentor, is critical in determining student success in your online course. This can be accomplished through effective individual and group communication, encouraging engagement in the course, productive and growth-focused feedback, and multiple opportunities for students to ask questions and learn in a way that is meaningful to them.”*¹⁷

As well as the teacher-student relationship, student-student links are important. There is evidence of improved learning when students are asked to share their learning experiences with each other.¹⁸

Does Online Distance Learning Work Better for some Students?

Given that, more or less by definition, students participating in an online distance learning programme will be operating with a greater degree of autonomy, it may be expected that those who will be best-suited to online learning will be those with the greatest propensity for self-regulated learning. This view is advanced in a review of the literature of on virtual schools by Michael Barbour and Thomas Reeves, dating from 2009:

“The benefits associated with virtual schooling are expanding educational access, providing high-quality learning opportunities, improving student outcomes and skills, allowing for educational choice, and achieving administrative efficiency. However, the research to support these conjectures is limited at best. The challenges associated with virtual schooling

¹⁶ Boettcher, Judith V., and Rita-Marie Conrad. *The online teaching survival guide: Simple and practical pedagogical tips*. John Wiley & Sons, 2016, chapter 3. This chapter is reprinted with permission in this article, from which the quotation is taken: <https://tomprof.stanford.edu/posting/1091>

¹⁷ "Teacher Guide to Online Learning | Michigan Virtual." <https://michiganvirtual.org/resources/guides/teacher-guide/>. Accessed 15 Jul. 2020.

¹⁸ Van Tassel, Joan, and Joseph Schmitz. "Enhancing learning in the virtual classroom." *Journal of Research in Innovative Teaching* 6.1 (2013): 37-53.

include the conclusion that the only students typically successful in online learning environments are those who have independent orientations towards learning, highly motivated by intrinsic sources, and have strong time management, literacy, and technology skills. These characteristics are typically associated with adult learners. This stems from the fact that research into and practice of distance education has typically been targeted to adult learners."¹⁹

Given the lack of evidence that Barbour and Reeves note, a more cautious conclusion would be that we may expect to find a relationship between outcomes from online distance learning programmes and the propensity of students for self-regulated learning, rather than the conclusion that this capacity is a precondition of success.

Kauffmann notes that students with the capacity for self-regulated learning tend to achieve better outcomes from online courses, a result that is not surprising given that in online learning, more responsibility is placed on the learner.²⁰ A 2019 review of 35 studies into online learning by Jacqueline Wong et al explores the connection between self-regulated learning, which is recognised to promote academic success and successful online learning.²¹ The study highlights the significance of supports for self-regulated learning such as the use of prompts or feedback in promoting the development and deployment of strategies for self-regulated learning, leading to better achievement in online learning:

*"In online learning environments where the instructor presence is low, learners have to make the decisions regarding when to study or how to approach the study materials. Therefore, learners' ability to self-regulate their own learning becomes a crucial factor in their learning success....supporting self-regulated learning strategies can help learners become better at regulating their learning, which in turn could enhance their learning performance."*²²

¹⁹ Barbour, Michael K., and Thomas C. Reeves. "The reality of virtual schools: A review of the literature." *Computers & Education* 52.2 (2009): 402-416.

²⁰ Kauffman, Heather. "A review of predictive factors of student success in and satisfaction with online learning." *Research in Learning Technology* 23 (2015).

²¹ Wong, Jacqueline, et al. "Supporting self-regulated learning in online learning environments and MOOCs: A systematic review." *International Journal of Human-Computer Interaction* 35.4-5 (2019): 356-373.

²² *Ibid.*

In an early (2005) study of 'Virtual High School' (VHS), the oldest provider of distance learning courses to high school students in the US, Dr Susan Lowes notes that the VHS's pedagogical approach "*emphasizes student-centered teaching; collaborative, problem-based learning; small-group work; and authentic performance-based assessment.*"²³ This approach, Lowes comments, is aligned with a growing body literature on the characteristics of successful online courses.

Taking a more student-centred approach during online instruction fits with features of the online environment. It is natural to make more use of asynchronous assignments and to expect students to take more responsibility for their study, given that they are not subject to direct supervision in a classroom setting and may be accessing course materials outside of a conventional timetable.

Can Online Distance Learning support the development of self-regulated learning?

It may be the case that, even if Barbour and Reeves are correct in claiming that only those students with an '*independent orientation towards learning*' typically achieve successful outcomes from online distance learning programmes, a countervailing relationship obtains insofar as participation in an online distance learning programme may foster the development of the propensity for self-regulated learning.

A controlled (2018) study by Ruchan Uz and Adem Uzun of 167 undergraduate students on a Programming Language course compared blended learning with a traditional learning environment. The Uz and Uzun study found that, for the purpose of developing self-regulated learning skills, blended instruction was more effective than traditional instruction.²⁴

In a 2011 review of 55 empirical studies, Matthew Bernacki, Anita Aguilar and James Byrnes noted that research suggests that:

²³ "ONLINE TEACHING AND CLASSROOM CHANGE - CiteSeerX."

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.94.6353&rep=rep1&type=pdf>. Accessed 15 Jul. 2020.

²⁴ Uz, Ruchan, and Adem Uzun. "The Influence of Blended Learning Environment on Self-Regulated and Self-Directed Learning Skills of Learners." *European Journal of Educational Research* 7.4 (2018): 877-886.

*“technologically enhanced learning environments (TELEs) represent an opportunity for students to build their ability to self-regulate, and for some, leverage their ability to apply self-regulated learning ... to acquire knowledge.”*²⁵

Their review suggests that the use of technologically enhanced learning environments can promote self-regulated learning and that such environments are best used by learners who can self-regulate their learning.²⁶

However, an investigation by Peter Serdyukov and Robyn Hill into whether online students do learn independently argues that independent learning requires active promotion as well as a desire to promote autonomy on the part of the instructor and the necessary skills and motivation on the part of students. Where these conditions are not met, the aspiration to autonomy is frustrated leading to negative outcomes from the online learning experience.²⁷

Bernacki, Aguilar and Brynes employed an Opportunity-Propensity (O-P) framework. The O-P framework was introduced by Brynes and Miller in a 2007 paper exploring the relative importance of predictors of math and science achievement, where it was described as follows:

*“This framework assumes that high achievement is a function of three categories of factors: (a) opportunity factors (e.g., coursework), (b) propensity factors (e.g., prerequisite skills, motivation), and (c) distal factors (e.g., SES).”*²⁸

It is plausible to suggest that the two-way relationship between self-regulated learning skills and successful participation in an online distance learning programme can be explained in terms of opportunities for the development of self-regulated learning skills

²⁵ Bernacki, Matthew L., Anita C. Aguilar, and James P. Brynes. "Self-regulated learning and technology-enhanced learning environments: An opportunity-propensity analysis." *Fostering self-regulated learning through ICT*. IGI Global, 2011. 1-26.

²⁶ *Ibid.*

²⁷ Serdyukov, Peter, and R. Hill. "Flying with clipped wings: Are students independent in online college classes." *Journal of Research in Innovative Teaching* 6.1 (2013): 52-65.

²⁸ Brynes, James P., and David C. Miller. "The relative importance of predictors of math and science achievement: An opportunity-propensity analysis." *Contemporary Educational Psychology* 32.4 (2007): 599-629.

afforded by the online distance learning environment and the prior propensity of learners to self-regulate their learning, together with changes in distal factors (such as exclusive mediation of learning through online platforms to IT and parental involvement in learning). An O-P framework will be used in this investigation for the analysis of qualitative data concerning students' self-description of their experience of Cranleigh's online distance learning programme.

Summary of Secondary Research Literature

Based on the above literature review, the following points can be made about online distance learning:

1. Successful online learning depends upon the formation of an online learning community. Regular online interaction between teachers and students is important in the development of an online community. Teacher-student and student-student links are part of this.
2. Students with the capacity for self-regulated learning tend to achieve better outcomes from online courses.
3. There is some evidence that online distance learning programmes can be used to help develop self-regulated learning skills, provided that both teacher and student are motivated by the goal of building autonomy.
4. There is support in the research literature for using collaborative, problem-based learning and authentic performance-based assessment within online learning programmes.

Methodology

Primary research of the responses of 3 year groups was undertaken to gather qualitative data using a sequence of open questions. Trends in this data set will be compared with findings from the secondary literature. Thematic analysis of the responses from one year group (year 12) was carried out in order to establish a more focussed understanding of

some of these trends, as well as to gather a broad picture of general responses to the dramatic shift from real world to virtual schooling as a pandemic response measure.

Trends Observed

The Value of a Learning Community

Many of the responses from Cranleighans in each of the surveyed age groups echoed the theme of the importance of 'teacher presence' and interaction in forming an online learning community.

I really liked how in most lessons we had a google meet, this enabled us to ask any questions directly to the teacher which was very helpful. (IV, year 9, student)

For me it would definitely be the google meets with the class/teachers because we can talk to each other rather than look at a screen. (IV student)

I think that the google meets were very good as it was quite similar to the classroom, also classkick was a good learning app as the teacher could access your work when you need it. The activities were also good, my favourite activity was the exercise one. (IV student)

Having a part interactive lesson is very good so you are on a meet with the teacher for the first part making notes with them allowing you to easily ask questions then doing some individual work in the latter part of the lesson where you can secure your knowledge. (LV, year 10, student)

I am able to have one on ones with my teachers if i am struggling on anything. (LV student)

I really like the fact that we engaged in live lessons over the iPad because it felt more normal. (LV student)

Google meet was very useful as I was able to have a one on one conversation with a teacher just like in a classroom. (LV student)

Classkick has been really good as the teacher is active and constantly checking your work. Having a google meet with the class and having notability on a split screen has been really helpful as it has allowed me to listen carefully and then write it down myself. I have been wanting to do more revision than normal as I want to make sure I am on top of things. I also feel as if I am able to understand the work better as I am able to ask to google meet the teacher at the time I have a specific question, and I feel as if I am able to go through what I am doing at my own pace. (LV student)

Google classroom has been really good, and so has google meet as it almost feels like you are having a real lesson. (LV student)

Class kick is really good way of doing lessons as you are able to get instant feedback from your teachers, which are able to write and correct your answers. Also google meets with your classes are really good as it is like what you do at school. I also find if you have a google meet at the beginning of the lesson explaining what you are doing and what the subject is about , and then doing a piece of art work about it very useful as it gives you a chance to go through it yourself and make sure you understand it. (LV student)

I have greatly appreciated it when some of my teachers have put in the effort to make the online lessons as similar as they would be at school.. (LVI student)

This remark about the value of making online lessons similar to those that would have been held at school was a theme that emerged as well when some of the limitations of the online medium were noted. When students were asked to comment on the main challenges they found when engaging in online distance learning, many drew attention to aspects of the real world classroom experience that they missed:

The main challenge that i faced with distance learning was distractions in my room as i am used to working in a working environment in a classroom. (IV student)

Wifi has been a huge problem for me. I also felt quite alone during the lessons. I was of course in contact with friends however I feel as though the only time I could have a

*connection verbally with the teachers is if I had a question. I really missed the interactions.
(IV student)*

For me it would be not being able to see/talk to my classmates and teachers. I also found it hard to focus as you are not in a working environment like school but more of a relaxed one. (IV student)

I think the main challenge was interacting with others due to their being no social interaction but only through a screen (LV student)

*The biggest challenge I faced was not being able to talk to my classmates during lessons.
(LVI student)*

Both in terms of positive experience and challenge, then, the importance of interactive presence as a constituent part of a learning community was strongly felt by students. This theme can be seen in the thematic analysis of LVI responses given below.

The Development of Independent Learning Skills

The experience of online distance learning by Cranleighans also accords with the significant connection, noted in the secondary research literature, between successful engagement in online distance learning and independent learning skills.

When students were asked if they had become better at independent learning, a significant proportion felt that they had.

32% of the 71 IV form students who responded to the survey felt that their independent learning skills had improved.

I think it has really challenged my independence and helped me work towards being independent in lessons and not relying on other people, just focusing on my work. (IV student)

I feel that I have learnt how to organise everything better, as it has allowed me to get into a rhythm of checking for new things in stead of waiting for the notification to appear, which means I remember what has happened, as I actively found the information. (IV student)

41% of the 91 LV students who responded to the survey felt that their independent learning skills had improved.

I think distance learning has made me much more independent because we have had to just crack on with our work and we are not always relying on the teachers to tell us the answers, we have had to work it out ourselves and I think that is a really important skill for us to use in our futures. (LV student)

Amongst the LVI, as explored in the thematic analysis below, by far the most frequently made comment about what had been learned related to gains in independence. As described in the data analysis section below, 54% of the comments made by the 65 LVI students who responded to the survey fell within the thematic area of ‘gains in independent learning’.

I started this year with a bit of a GCSE attitude to learning, just before isolation I was getting better but still not there yet. Then durning lockdown i found myself being a lot more self motivated, i started doing work much quicker and easier, and started learning more outside of lessons. On top of this i managed to start hobbies which I have been holding back on. (LVI student)

I’ve always liked independent learning but I noticed I can self motivate a lot more than I thought I could prior to distance learning. (LVI student)

i feel more independent at doing my work and learnt to solve issues without relying on other students or teachers first (LVI student)

The value of project-style assignments

As noted above, there is support in the research literature for an approach that draws on project-style assignments as a constituent of an online distance learning programme.

Projects offer an opportunity for students to engage with challenges more deeply, making choices about the development of their work and responding to challenges over a period of time. As such, project assignments fit naturally into a programme of online instruction, where learners will be expected to take greater responsibility for the learning journey, and where it may be logistically simpler to avoid relying on tasks that are carried out synchronously by all learners. Project work also provides a setting in which it is both natural and beneficial for the focus of assessment to shift from summative grading to formative feedback.

A number of project-style assignments featured within a short video produced to exemplify some of the activities taking place during Cranleigh's online distance learning programme.²⁹

Data Collection

LVI Main Challenges

Themes	Number of instances	Frequency (%)
Psychological challenges (motivation, loss of interest, lack of retention / understanding, loss of concentration / focus, challenge of independence)	46	38
Technological challenges (Wifi / Tech / Online work organisation / apps issues / communication issues)	36	30
Socio - environmental challenges (lack of interaction / discussion / debate, loss of facilities,	26	21

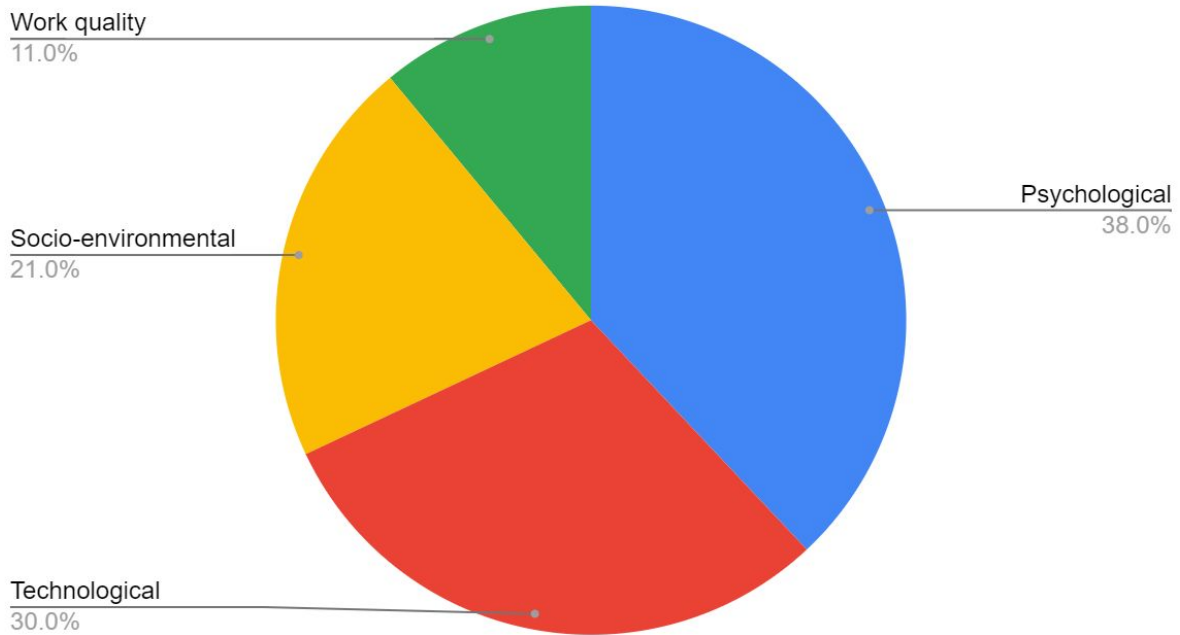
²⁹ "Distance Learning Highlights on Vimeo." 5 May. 2020, <https://vimeo.com/415133844>. Accessed 6 Sep. 2020.

groupwork, physical effects)		
Work quality challenges (pacing, quantity, balance)	14	11

Table 1. LVI Responses (respondents: n = 65, coding instances: n = 122)

Codes with n=1 were aggregated with other codes where possible or discarded.

LVI Main Challenges

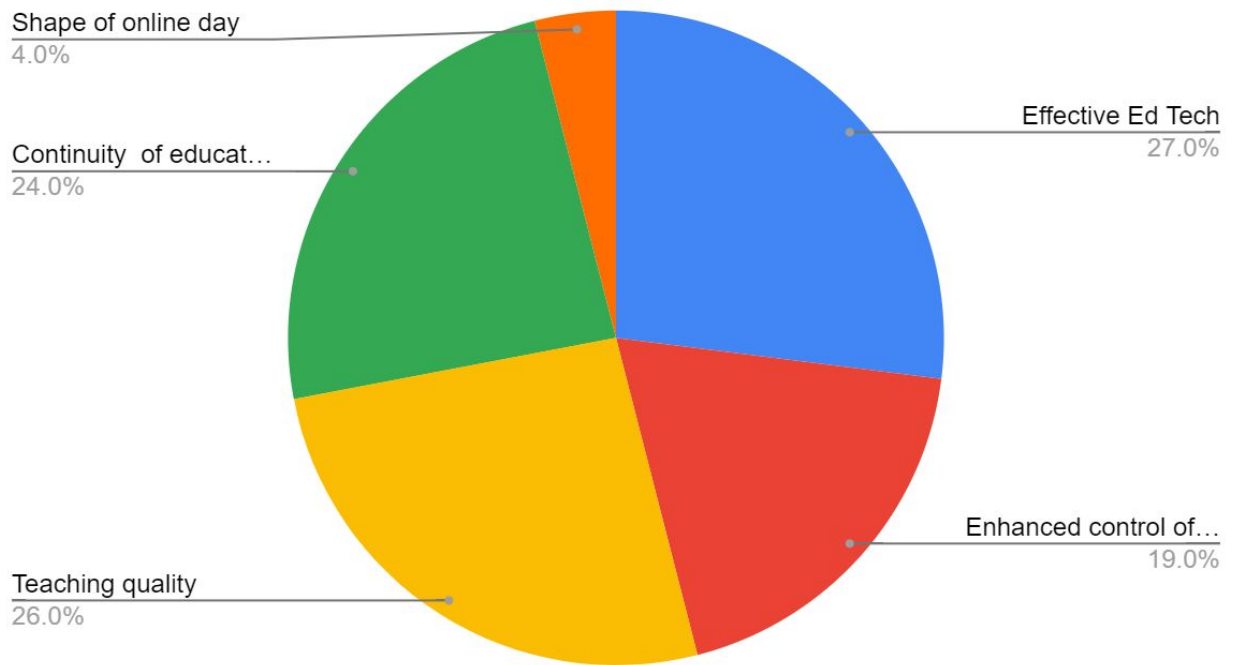


LVI Positive Points

Themes	Number of instances	Frequency (%)
Effective education technology (good apps, quality of online interactive communication, variety of online platforms, shared pupil / teacher folder)	38	27
Teaching quality (quality of marking / feedback, structured programme, well-planned lessons, active class participation, quality of online resources / videos, links to broaden subject, good content coverage, sensible amount of work set, engaging lessons, good teaching, quality of teacher support, enjoyable lessons, balance of contact time / independent study, variety of resources)	37	26
Enhanced control of learning (Improved time management, development of independent working, improved productivity, better work ethic, learning different IT skills, ease of managing prep, freedom to manage learning, confidence)	26	19
Continuity of education (closely emulating school, screen mirroring / live presentations by teachers, 1-1 video meets with teachers to check progress, 1-1 or group tutor sessions, regular pastoral care / HM contact, understanding of students by teachers, virtual call over / community feel)	33	24
Shape of the online day (shorter lessons aiding organisation, later start to the day, more free time, freedom to use time, change to Saturday timetable / P5 after lunch)	6	4

Table 2. LVI Responses (respondents n = 65, coding instances n = 140)

LVI Positive Points

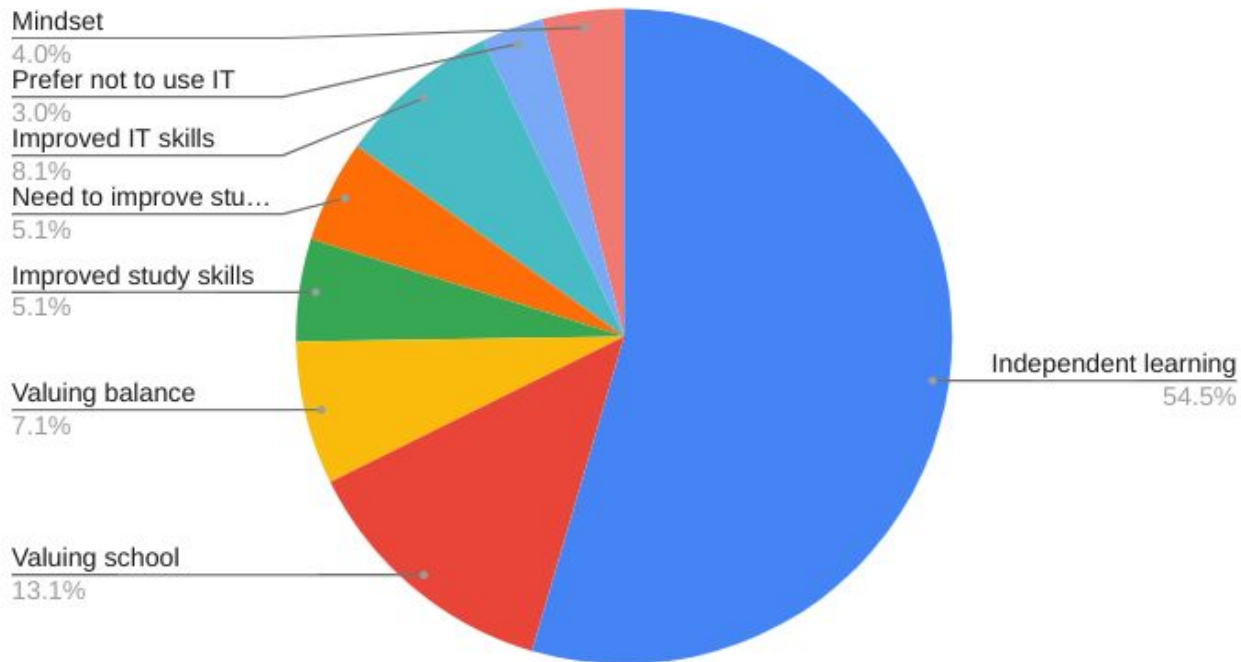


LVI Lessons Learned

Themes	Number of instances	Frequency (%)
<p>Gains in Independent Learning (Improved self-motivation, better independent learner, value of independent learning, better time management, capable of more self-motivation / independent learning, better at distance learning, adapted to distance learning over time, better at independent problem solving, better at working individually, learned more and enjoyed subjects more, learned about own learning, able to work anywhere, more creative and innovative with note-writing, able to work better at own pace, less dependent on teachers or peers)</p>	50	54
<p>Valuing School (Value of a schedule, not good at remote / independent learning, found it hard to self-motivate, enjoy communal school environment, contact time is hugely important, learn better when interacting with teachers, appreciate being in school / value being around people, value productive structure of busy Cranleigh day)</p>	12	13
<p>Valuing Balance (Learning more outside lessons, started hobbies, better at concentrating outside classroom, valuing other things e.g. creative activity, non-school activity)</p>	6	7
<p>Improved Study Skills (Finding work quicker, easier, better equipped to revise at home, more focussed / disciplined about prep, understanding what is needed to work productively)</p>	5	5
<p>Need to Improve Study Skills (Easily distracted, need to improve work habits, losing concentration when doing prep)</p>	5	5
<p>Improved IT Skills (Better IT user, better at email, better at using apps / different ways of formatting work, more comfortable with IT, like using it, using new apps)</p>	7	8
<p>Prefer not to use IT (Pen and paper better for learning than iPad, motivation to use IT is hard)</p>	3	3
<p>Mindset (Look for positives, struggle to do well with little motivation, better mindset)</p>	4	4

Table 3. LVI Responses (respondents n = 65, coding instances n = 92)

LVI lessons learned

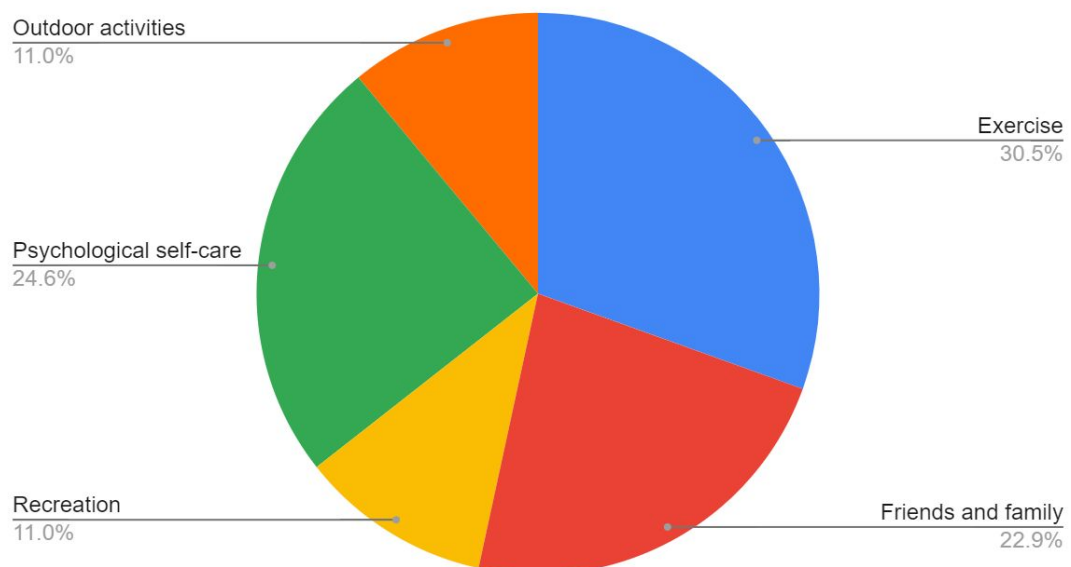


LVI Meeting mental and physical challenges

Themes	Number of instances	Frequency (%)
Exercise (Regular exercise, group / team sport, Rugby fitness group)	36	31
Family and friends interaction (Time with friends online, interacting with family, social activity, calling / contact with / seeing friends, talking to people)	27	23
Recreation (Movies, gaming, music, reading, off-screen amusements, podcasts, baking)	13	11
Psychological self-care (Keeping busy / active, positive thinking, doing what makes you happy, following a schedule, self-reflection, planning ahead / setting goals, self-motivation, breaks from screen, learning new exercises, meditation, keeping organised / setting a routine, self-care, yoga, balancing work / free time, breaks from work, moving location, relaxing & keeping perspective, healthy eating)	29	25
Outdoor activities (Getting outdoors, horse-riding)	13	11

Table 4. LVI Responses (respondents n = 65, coding instances n = 118)

LVI Meeting physical and mental challenges

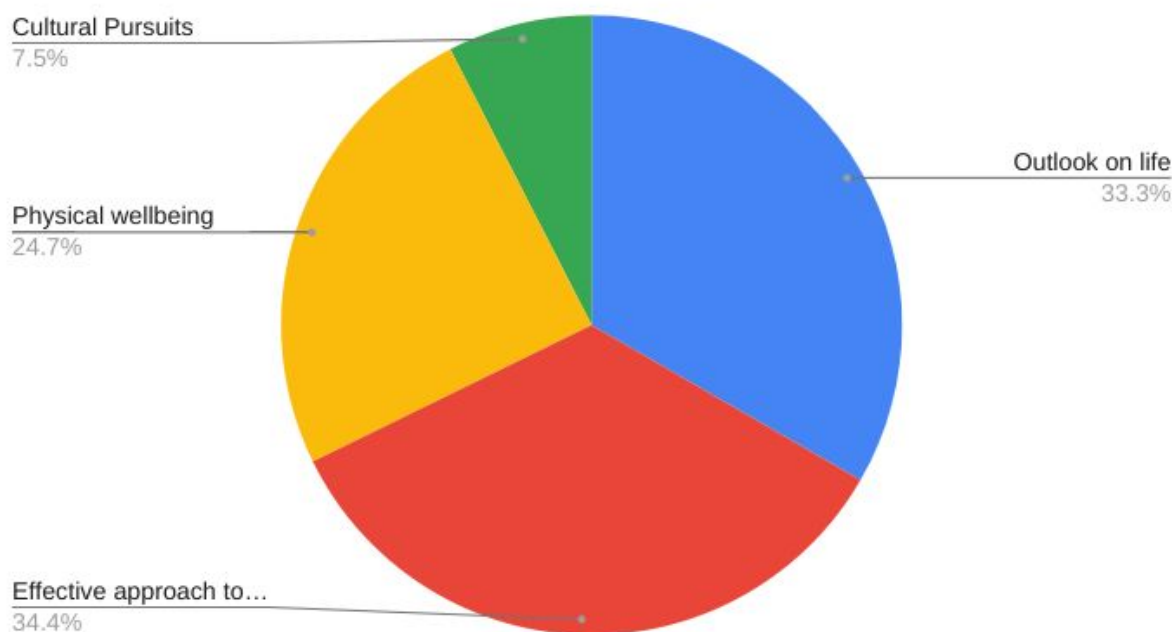


LVI Memorable Points from Lockdown

Themes	Number of instances	Frequency (%)
<p>Outlook on life (Self-reflectiveness, appreciate privilege, taking time to do / enjoy things, make time to build, don't take time at school for granted, expressing feelings. clear workspace = clear mind, coming of faith, development of equality, not taking everything for granted / appreciate small things / make the most of everything / gratitude for things removed during lockdown, don't be afraid to ask for help, take breaks for mental health, political awareness, stay positive, value / see friends and family, effect of screentime on mood, small changes suffice, care for environment)</p>	31	33
<p>Effective approach to study/ learning (learning to gain motivation / stay motivated, 10 minute break between lessons / no Saturday school / later start / change of timetable > more freetime, continue to work independently / with focus, change in attitude towards work load, we learn from each other, productivity and efficiency, plan ahead/ stay organised, reading / more challenging books, family debate leads to understanding, use all resources for prep, wider understanding of learning)</p>	32	34
<p>Physical wellbeing (Be more active in school week, exercise is a boost, stay active, sleep, stay healthy, going outside / walking / camping / beach, keep cooking, yoga)</p>	23	25
<p>Cultural pursuits (Drawing / art / filming / music-making, writing, piano)</p>	7	8

Table 5. LVI Responses (respondents n = 65, coding instances n = 93)

Memorable Points from Lockdown



Discussion

The findings from surveys fit well with an opportunity - propensity framework. Arguably, successful access to an online distance learning programme requires greater use of self-regulated learning skills than does participation in a real-life classroom, given that distance learning involves the learner taking more direct control of the learning process, choosing to a greater extent how and when to engage with the instructional process and being to a significant extent more autonomous.

The transition from real-world to distance learning also increases the range of distal factors that can shape the quality of the learning experience. So, for example, amongst the main challenges identified by the LVI students, 30% of the identified challenges related to technology (e.g. wifi issues) or to challenges to communication in the online environment.

The fact that learning was taking place under lockdown conditions also constituted a significant distal factor. Of the main challenges identified, 38% were psychological in character, with factors such as loss of interest, motivation, loss of concentration and the

challenge posed by the requirement for extra independence being cited. Moreover, a further 21% of the factors identified as significant challenges were socio-environmental in nature, with students highlighting the relative lack of interaction, discussion and debate in the online environment, as compared to the real-world classroom environment.

Plausibly, these two sets of factors interact with each other: the psychological challenges arose from the rapid transition to a physically isolated learning environment coupled with the national change to a locked-down society. Students found learning posed real challenges because life itself was posing real challenges. Their psychological well-being was affected by the sudden transition to a world in which educational interaction was mediated by screens.

At the same time, a significant proportion of the responses highlighted the fact that the increase in opportunity for self-regulated learning through a more asynchronous mode of instruction, together with greater autonomy for students to choose how to use time outside of lessons, had led to an improvement in independent learning skills.

54% of the factors cited by LVI (year 12) students as lessons learned from the online distance learning programme related to an improvement in their capacity for independent learning. Students described how they had gained improved self-motivation, become better at independent learning, time management and independent problem solving. They felt that they had learned more and enjoyed subjects more, learned about their own learning, were now able to work anywhere and were less dependent on teachers or peers.

This fits with the opportunity - propensity model. LVI students came into the distance learning programme having had training in independent learning techniques (through lower school project programmes in specific subjects, through EPQ, through a school-wide emphasis on Cranleigh Thinking qualities such as reflection, discovery, dialogue and inquiry and through habits of regular independent study as part of the prep routine in boarding houses. It is reasonable therefore to suppose that they had to some extent developed a propensity to learn independently and that the opportunity afforded by the distance learning programme enabled them to utilize and develop this capacity.

Conversely, those students who felt that they lacked independent learning skills tended to feel that they had not been able to utilize the opportunity to take more control of their learning. Whilst not in a majority, 5% of the responses identified the need for improved study skills, with students stating that they felt that they had been easily distracted, needed to improve their work habits or had lost concentration when doing prep.

Conclusion

Laying foundations.

Reflection on the experience in recent months at Cranleigh suggests that launching into a distance learning programme is challenging for all concerned. The foundational elements of a successful programme include:

- (A) A robust IT network, both at School and at home, with strong support for staff and students, plus a good suite of online learning tools with which students and staff have some familiarity with both operational technical knowledge and an understanding of how it should be used.
- (B) Training for staff. This can be through face-to-face support if conditions allow but can also be via links to recorded guidance. A 'chat room' connection to IT support which also allows teachers to share tricks, tips and workarounds is very valuable.
- (C) Adequate hardware provision. If all students have access to a single robust online learning platform, and hardware available to them at home to facilitate this, you have the best chance of making a smooth transition. But this cannot be guaranteed so teaching resources need to be made available in ways that allow access from different platforms e.g. as downloadable, printable packs for those without regular access to a personal device.
- (D) A robust, common learning platform. The more commonality there is in terms of the basic software being used, the better. Students need simple, clear routes into their learning assignments. Teachers need a platform which is clear, understandable and above all robust. Whilst a lot of software is available it is fair to say that the most resilient packages seem to be those from the major providers. An example from the experience of Cranleigh Prep School was the disruption caused early in the distance

learning programme by the crashing of the Firefly website when many schools went online for the first time on the same day (Monday 23rd March).

Creating expectations.

Decisions from school leaders need to be made about the expectations of staff and students. These need to reflect the fact that distance learning is a different environment to face-to-face. The speed of 'content acquisition' tends to be lower and it cannot be assumed that all students will be able to access materials at the same time.

Expectations need to be formulated concerning the amount of material to be covered, the forms and frequency of feedback, the balance of synchronous and asynchronous learning and stated clearly and explicitly for teachers and students.

It may well be that the expectations change depending on the age of the students and their access to technology. So, for example, at the senior school, where all students have their own device, it was decided to run a full timetable (although with a small reduction in lesson length and some re-structuring to create a weekend break in order to allow for the intense effort that goes into distance learning). At the prep school, where not all students have access to their own devices, it was decided to use asynchronous learning as the basic platform with addition of live elements such as Google Meets as the programme developed.

Adapting pedagogy

There is no need for the replication online of all features of a face-to-face classroom setting. As students are literally remote, we have had an opportunity to ask them to take more responsibility for using their time well and engaging with their studies. At the same time some tasks that we do have the potential to become immensely more time-consuming - like trying to do electronic marking. Conversely teachers have the opportunity to let the technology work for them by giving swift and easy access to students' work as they are doing it, bringing with it the opportunity for more formative and less summative assessment.

Online learning therefore works well when teachers move away from single lesson tasks with follow-up marking towards more open-ended project activities that students can engage with over a sequence of lessons, with our feedback and monitoring happening through supervisory comments rather than summative marking.

An example of an online project activity

Design learning activities that centre on a project-style open question or challenge e.g. 'Work over the next 3 lessons to design a slideshow with your recommendations for the future of energy use in the UK based on the advantages and disadvantages of different sources.'

Creative project assignments which encourage students to make use of their homes as a learning resource are especially valuable. It is also helpful if these involve creative work that takes them away from screens for a while e.g. *use materials from around the home to make a game about events in the life of King John.*

Maintaining live contact

Research into virtual learning emphasizes the importance of the connection between students and their teachers. This can be lost if there is no 'live' contact element at all. As Beale notes, this does not necessarily mean that every lesson needs to include a video meeting,³⁰ though there is a beneficial psychological impact of knowing that the teacher is still in contact and regular face-to-face online discussions can enable this. There are other forms - a discussion thread which begins during a lesson and is open throughout can perform the same role, though in cases where meeting functions are available, students may be directed to use these rather than email as well.

It was significant that survey responses highlighted the negative psychological impact of being removed from the social world of conventional schooling to the relatively more isolated distance learning environment whilst also highlighting as positive aspects of the distance learning programme the times when teachers set up interactive activities or allowed space for online discussion.

³⁰ "Research-based Effective Online Teaching Strategies – The" 5 May. 2020, <https://cirlresearch.com/2020/05/05/research-based-effective-online-teaching-strategies/>. Accessed 15 Jul. 2020.

24% of the positive points listed by students related to ‘continuity of education’, such as closely emulating school, screen mirroring or live presentations by teachers, 1-1 video meets with teachers to check progress, 1-1 or group tutor sessions, regular pastoral care / HM contact, understanding of students by teachers, the use of virtual call over and community feel.

27% of responses highlighted good education technology as a significant positive aspect of the distance learning programme, and included amongst these responses were comments about the value of education technology in enabling high quality interactive communication.

It would be reasonable to summarize responses by saying that the students missed their school and valued the online distance learning programme more when it was able to help reproduce some of the social elements of the real world school experience.

Managing feedback and assessment

As well as contact with the teacher, regular feedback on work is valuable in ensuring progress and motivation is maintained. This can be through ‘live marking’, when a teacher views a project assignment whilst it is under development and adds comments to it. ‘Assessment for learning’ is recognized as an effective form of feedback that improves students’ learning.³¹ Work submitted online can also be given summative marks though care needs to be taken here that this does not become too time-consuming for the teacher. Using platforms such as ‘[Classkick](#)’ to provide easy visibility of each student’s work has been helpful here. Online testing through programmes such as [Socrative](#) or [Seneca](#) has also been helpful. There are evidently problems with summative assessment if this is going to be used for high stakes purposes and a strategy needs to be developed here. Options include using multiple choice assessment in timed conditions or setting tests which are designed to be open-book.

³¹ "Embedding Formative Assessment | Projects | Education"
<https://educationendowmentfoundation.org.uk/projects-and-evaluation/projects/embedding-formative-assessment/>. Accessed 15 Jul. 2020.

Encouragement & rewards

Beale's research summary also emphasizes the importance of an online environment that is supportive and encouraging.³² Distance learning is challenging for students and the experience can be frustrating and de-motivating if technology fails (e.g. work gets lost or a live session cannot be joined due to a connection failure or time-zone difference). More than ever, teachers need to work at providing positive encouragement to their students, praising and rewarding success and acknowledging challenges when they exist. It is also valuable if teachers can identify new skills that students are acquiring - not least personal skills in problem-solving, use of IT and resilience, and encourage their classes when they see evidence of these.

Review and revise

It is fair to say that the move to an entirely distance learning programme is the single biggest and most rapid change that many of us will ever have had to make. As with any large scale rapid innovation, it is hard to get everything right and willingness to revise and refine is needed. This may mean adapting to use a new software platform across the whole school if problems are found with existing provision, or it may be an adjustment to expectations about lesson length or frequency of feedback. Keeping the distance learning programme under review will also be essential as we look towards a possible future in which it will co-exist with face-to-face teaching.

³² "Research-based Effective Online Teaching Strategies – The" 5 May. 2020, <https://cirresearch.com/2020/05/05/research-based-effective-online-teaching-strategies/>. Accessed 14 Jul. 2020.

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