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# **A Thousand Reasons to Hate E-learning: A Comparative Analysis of Empirical Data and Theoretical Considerations Pertaining to Dissatisfaction with Distance Learning**

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**Table 1. Stakeholder markers**

<b>Stakeholder</b>	<b>Markers</b>
Student	Identifies as student or mentions taking class, writing assignments
Parent	Identifies as parent or mentions children taking online classes
Worker	Mentions taking work related e-learning
Teacher	Identifies as teacher or mentions teaching
Unspecified	Missing identity markers

## **A Thousand Reasons to Hate E-learning: A Comparative Analysis of Empirical Data and Theoretical Considerations Pertaining to Dissatisfaction with E-Learning**

### **Purpose**

E-learning has become a polarizing issue. Some say that it enhances accessibility to education and some say that it hinders it. While the literature on the subject underscores the effectiveness of the pedagogical frameworks, strategies, and distance learning technologies, the first-hand accounts of students, parents, and practitioners challenge the validity of experts' assessments. There is a gap between theory and practice and between the perceptions of providers and consumers of online learning. Following a period of lockdowns and transition to online learning during the recent pandemic, the prevailing sentiment toward a distance mode of instruction became one of strong skepticism and negative bias.

### **Design/methodology/approach**

The aim of the study was to examine why e-learning has struggled to meet stakeholder expectations. Specifically, the study posed two research questions:

1. What are the reasons for dissatisfaction with online learning?
2. What are the implications for future research and practice?

The study employed a mixed methods approach to examine the reasons behind negative perceptions of online learning by comparing the first-hand accounts posted on social media with the literature. To this end, N=62,874 social media comments of secondary and post-secondary students, as well as parents, teachings staff, and working professionals, covering the span of over 14 years (2008-2022) were collected and analyzed.

### **Findings**

The study identified twenty-eight themes that explain the stakeholder's discontent with the online learning process, and highlighted the importance of user-centric design. The analysis revealed that the perceived ineffectiveness of distance education, stems from the failure to identify and address stakeholders' needs and more particularly from the incongruence of instructional strategies, blindness to the cost of decisions related to instructional design,

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3 technology selection, and insufficient levels of support. The findings also highlight the  
4 importance of user-centric design.  
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### 7 **Practical implications**

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10 To address dissatisfaction with e-learning, it is imperative to remove barriers to learning and  
11 ensure alignment between technology and learners' needs. In other words, the learning  
12 experience should be personalized to account for individual differences. Despite its cost-  
13 effectiveness, the one-size-fits-all approach hinders the learning process and experience and is  
14 likely to be met with resistance.  
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### 20 **Originality/value**

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22 Drawing from the extensive literature, the study offers an explanation for stakeholders'  
23 discontent with e-learning. Unlike survey research that is prone to social desirability bias, our  
24 sample provides a rare opportunity to observe and measure the visceral reactions that provide a  
25 more authentic sense of stakeholders' perceptions towards online learning. We offer  
26 recommendations and identify areas for future research.  
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33 **Keywords:** Teaching Methods; E-Learning; Distance Learning; Communication Technologies;  
34 Behaviour  
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## Introduction

Ask around about the value of e-learning and you will receive a mixed bag of arguments. Some point out how convenient online classes are, and some argue that sitting in front of the screen all day is a nuisance. The opinions are grounded in personal experiences; much of the population had a first-hand view of how remote learning works.

Since the advent of the Internet many academic institutions expanded course offerings by developing online curriculum, while business enterprises have been moving their corporate training programs online, in attempts to minimize the logistical costs and complexity of scheduling multiple training sessions for widely dispersed teams. Mobile learning proved to be valuable for professionals working in the field and students in the classroom (Tsinakos & Ally, 2013).

More recently, due to the pandemic related lockdowns, many academic institutions transitioned their classes to distance education to minimize disruption. For over a year, educators and students, in both K-12 and post-secondary systems, were teaching and learning using technologies. The effects of the expedited efforts for the adaption of remote teaching and learning can be seen in the media headlines. For instance, an op-ed in the Atlantic titled Remote Learning Is a Bad Joke, highlighted the challenges of participating in an online class, from both the student and parent's perspective— “Before mid-March 2020, if you'd asked me how I felt about videoconferencing, I'd have shrugged. It's fine? Now I would have to amend that opinion slightly. It's not fine. It's horrible, a form of psychic torture, and I hate it so deeply that my hatred feels physical, like an allergic reaction” (Gould, 2020).

Another op-ed piece published in the New York Times titled My College Students Are Not OK described poor participation, late assignments, low quality of class discussions, and failed exams (Malesic, 2022). An article in Forbes magazine, highlighted the survey results that underscored teachers' unpreparedness to facilitate remote learning (Newton, 2020). Social media discourse during that period was similarly skewed toward a negative sentiment.

In contrast to the news and social media, the discourse in the academic press was more balanced. On the one hand, the rapid transition to remote teaching caused optimism about the adoption of distance learning technologies and their potential to enhance the learning and teaching processes.

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3 Blumenstyk (2020) argued in a piece published in the Chronicle of Higher Education that the  
4 industry-wide transition to distance learning could result in a “black swan” event, asking whether  
5 “Is it crazy to think that a new virus could be more of a catalyst for online education and other  
6 ed-tech tools than decades of punditry and self-serving corporate exhortations?... once colleges  
7 develop the ability to serve their students via technology, there’s little reason for them to  
8 abandon it.” Nevertheless, there was a growing concern over quality of the online classes. An  
9 article in Inside Higher Ed stressed that emergency transition to distance learning would result in  
10 “a pale imitation of what the best in today’s online learning looks like,” and argued that  
11 “exposing entire faculties and student bodies to this flawed product will set back, rather than  
12 advance, faculty and student attitudes about the quality of technology-enabled learning”  
13 (Lederman, 2020).  
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23 The “black swan” moment never came; what came instead was the disillusionment and aversion  
24 to e-learning. The need for better engagement and student support has been highlighted during  
25 the period of lockdowns, when many instructors have struggled to sufficiently adapt the  
26 traditional curriculum to online teaching (Ní Fhloinn & Fitzmaurice, 2021). One particular study  
27 attributed the decline of student participation to the shift from the traditional in-person learning  
28 to the online delivery format (Wester et al., 2021). Three other pressing issues were the integrity  
29 of student assessment (Bilen & Matros, 2021; Lancaster & Cotarlan, 2021), the issue of mental  
30 health (Dodd et al., 2021) and accessibility to technology (Kecojevic et al., 2020).  
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38 A clear gap emerged between what the decades of research said the e-learning environment and  
39 student experience could theoretically be like, and what the environment and experience was in  
40 actuality. Within days of class commencement, technology-mediated learning was described  
41 with just about every combination of expletives. Whatever happened during that period seemed  
42 to negate the benefits of distance learning and all the positive changes distance education  
43 scholars had promised it would bring.  
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49 Distance learning was once promoted as a path toward lifelong learning, knowledge society and  
50 information economy; it had been said to offer flexibility of learning anytime and anyplace and  
51 the convenience of learning at your own pace; to democratize educational landscape and make it  
52 global. In a 2006 survey higher education instructors and academic administrators, were asked to  
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3 make predictions about the future of e-learning; 47% of the participants said that e-learning  
4 courses will be superior to that delivered in the traditional mode (Kim & Bonk, 2006).  
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7 Over the past two decades many academic institutions around the world opened their doors to  
8 virtual international students who could study from the comfort of their own home. Likewise,  
9 distance learning technologies offered opportunities for the class of students who are often left  
10 behind by the traditional system—the workers, soldiers, parents, students with special needs,  
11 among others. A wide range of massive open online courses (MOOCs), offered by top academic  
12 institutions, allowed everyone with access to a computer to partake in otherwise exclusive or  
13 cost-prohibitive educational process. Yet, for many e-learning seemed like false advertising—it  
14 was dead on arrival (Gould, 2020; Malesic, 2022; Newton, 2020).  
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22 This study is timely and important as it attempts to examine why e-learning did not scale up  
23 well; how did we get from “the new paradigm of modern education” (Sun et al., 2008) to “a Bad  
24 Joke” (Gould, 2020)? The study aim and research questions are discussed next.  
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### 28 **Study Aim and Research Questions**

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30 Our aim here is to examine the reasons students, parents, and teaching staff provided to justify  
31 their dislike of the e-learning process. The study addressed two research questions:  
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- 35 1. What are the reasons for dissatisfaction with online learning?
- 36 2. What are the implications for future research and practice?  
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### 39 **Literature Review**

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41 In the following paragraphs we shall examine the process of distance education through the lens  
42 of students, instructors, academic administrators, and parents.  
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### 46 **Student Perspective**

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48 The results of a survey of n=2,196 students at 29 Australian universities by Paechter and Maier  
49 (2010) showed them to perceive a higher cost-benefit ratio and better clarity of materials in the  
50 online mode. They also appreciated flexibility, faster feedback, and more efficient teacher and  
51 peer interactions. More recently, Dodd et al., (2021) also surveyed Australian university students  
52 (n=787) examining their psychological wellbeing and academic experience but this time during  
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3 the Covid pandemic. Most (74.7%) found online learning more challenging perceiving online  
4 peer interaction (84.6%) and communication with teachers (74.6%) to be more difficult.  
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6 However, 47.6% of respondents said that online learning was less time consuming, and 27.6%  
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8 preferred studying online.  
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11 A survey by Cole, Shelley, and Swartz (2014) examined student satisfaction in online courses.  
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13 The results suggest that students favored hybrid or mixed courses more than fully online courses  
14 citing the lack of interaction as the reason for dissatisfaction. On the other hand, students cited  
15 convenience associated with anytime and anyplace learning as the reason for satisfaction with  
16 online learning. This theme is echoed in a study by Luaran et al. (2014) who surveyed secondary  
17 school students (n= 45) in Malaysia. Flexibility perceived to be a feature of distance learning in  
18 both the instructor-led and self-study courses, however the traditional school afforded greater  
19 opportunities for socialization with friends.  
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25 The question of what drives successful e-learning was examined by Sun et al. (2008) who  
26 conducted a survey of learners enrolled in 16 different online courses at two public universities  
27 in Taiwan. The results suggest that student satisfaction can be explained by the following  
28 conditions: learner computer anxiety, instructor attitudes toward e-learning, course flexibility,  
29 course quality, perceived usefulness of the e-learning system, perceived ease of use of the e-  
30 learning system, diversity of assessment strategies, and timeliness of instructor communication.  
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37 Another survey of undergraduate students (N = 600) highlighted that course flexibility, instructor  
38 presence and guidance, instructors' e-learning expertise, quality of technology, perceived  
39 usefulness, diversity of assessment strategies, perceived level of interaction, and the level of  
40 academic support influence student satisfaction (Asoodar et al., 2016). Moreover, when asked  
41 about satisfaction with either the online or traditional class format, some students express distinct  
42 preference toward one or another; though, the traditional format was preferred more than the  
43 online format (Pena & Yeung, 2010).  
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### 49 **Through the Lens of Parents**

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52 Learning from home presupposes that students and/or their parents will be responsible for some  
53 services that are traditionally provided to them by their educational institution. For example,  
54 younger learners may require help to log-in to their online class or to use a camera to record a  
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3 video, which will be provided by a family member. The division of labor scheme, characteristic  
4 of the traditional teaching mode, where teaching and support occur outside of one's home and  
5 are outsourced to education professionals, is transformed by the remote learning process, where  
6 learning occurs outside of the educational institution, and requires collaboration on the part of  
7 learners or their families. This predominately affects younger students, who do not yet have the  
8 necessary technical skills, or lacking self-discipline and intrinsic motivation to undertake  
9 learning on their own. Hence, by not sending their children to school, as was the case with health  
10 related lockdowns, parents are faced with a need to support their children's learning. As such, the  
11 learning process is often dependent on parents (Liu et al., 2022). The shift to learn from home  
12 model, put greater onus on parents to provide services that otherwise would be provided by the  
13 school staff. The amount of involvement the parents have with the learning process, however,  
14 depends on the quality of the instructional product. When instructions are confusing or written  
15 above one's reading level, students would not be able to proceed with learning on their own and  
16 are likely to involve others.  
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28 A study by Cárdenas-Marcelo et al. (2022) noted that during the period of health-related  
29 lockdowns in Mexico, mothers whose children studied remotely from home, took time off work  
30 to stay home to support their children. E-learning enhanced accessibility to learning; however, it  
31 came with a cost. Increased electricity bills, the cost of the Internet access, and communication  
32 equipment such as personal computers and cell phones, put some parents in a precarious  
33 position. The cost of learning from home can be more expensive than sending children to school.  
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Oppermann (2021) surveyed parents of young children (n=7,837) in Germany during the Covid  
related lockdowns, to examine the relationship between stress and changes in parents' home  
learning activities. The findings suggest that the reported level of involvement in home learning  
activities had increased during the period of lockdowns than before. As well, the lower stress  
levels were associated with an increase in learning activities.

To examine the relationship between parents' attitudes toward e-learning and learning  
effectiveness Liu, Zhao, and Su (2022) surveyed 18,170 middle school parents from China. The  
results suggest that parents' attitudes toward e-learning were positively correlated with self-  
efficacy; however, the correlation between perceived ineffectiveness of e-learning and parents'  
attitudes toward e-learning were reversed. To minimize parents' anxiety the authors

recommended to minimize the number of “unnecessary online learning platforms or software tools”. Furthermore, to mitigate the effects of prolonged screen time on children’s eye sight, the authors proposed to alternate e-learning with other activities.

### **Faculty and Administrative Perspectives**

Morgan and Belfer (2007) noted that in “distance education, course development can be an individual or collaborative effort involving instructors, course authors, and instructional designers” (p.230). They further noted that, “good implementation relies in part on the course design, since it speaks to how activities should be constructed and facilitated, but that the instructor’s facilitation strategies for course activities are an important factor in influencing student perception of the learning experience” (p.233).

The terms e-learning and online learning are sufficiently broad to encompass any type of interaction aimed at students as long as communication technologies are used. A file repository containing power point presentations, documents, and links will be considered e-learning as will be a virtual reality game, a series of recorded video lectures, or live webinars. Due to expertise constraints, as well as technological, budgetary, and logistical limitations curricula may not be sufficiently adapted to the learner’s needs.

Engelbrecht (2005) stressed that when the traditional mode of education is taken as a gold standard, the online learning programs, in spite of being a distinctly different method of teaching, will tend to emulate their face-to-face counterparts. The teacher-centered approach presupposes that the quality of learning experience is commensurate with the amount of information transmitted by the instructor. The tendency to emulate the traditional courses further hinders learning experience, according to Engelbrecht (2005), because distance programs fail to fully embrace flexibility and offer personalized learning experience. Although technologies allow students to communicate remotely, the program structure lacks flexibility.

A multinational survey (n=29 countries) by Ní Fhloinn and Fitzmaurice (2021) examined the experiences of math instructors (n=257) during the transition to online learning. The paper makes an implicit distinction—and a very important one—between e-learning and emergency remote teaching. The latter entails an element of surprise and exploration; it was a learning experience for academic staff, who were forced to rapidly adapt to the new norm. The results indicate that

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3 the majority (90%) of instructors had no experience teaching online prior to the lockdowns.  
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5 Online teaching was perceived to be stressful, time consuming, and difficult—40% of instructors  
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7 perceived online teaching to be “a bit more difficult,” and around 40% considered the difficulty  
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9 level to be the same. The authors further stressed that “online teaching was deemed to be  
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11 considerably less useful, with only 14% deeming online to be a bit more or much more useful  
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13 than their regular teaching. Interactivity scored even lower, with only 6% of respondents  
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15 deeming online teaching to be a bit more or much more interactive than their regular teaching.”  
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17 However, some found the new teaching methods to offer flexibility; 57% of the participants said  
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19 that the new method was a bit more or much more flexible than the traditional classes. As their  
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21 teaching progressed throughout the semester, the sentiment did not improve; 62% of the  
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23 respondents said it was a bit more or much more stressful than traditional teaching mode.

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25 In terms of challenges, math instructors reported encountering technical issues, challenges  
26  
27 pertaining to students, pertaining to teaching and to the nature of mathematics. Technical  
28  
29 challenges were related to technology, handwriting, whiteboards, and slides. Student challenges  
30  
31 entailed issues with communication, engagement, interaction, and understanding. Teaching  
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33 challenges included difficulties with facilitation of group work, assessments, explanations, and  
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35 discussions. The nature of mathematics posed further challenges for some instructors as it is  
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37 predicated on the presentation of abstract ideas, visualization, and hierarchical structure. Some  
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39 considered math learning a collaborative effort and some considered it to be an independent  
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41 study activity.

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### Method

This study employs a mixed methods approach. The data was collected in September 2022 from  
social media platform X, formerly known as Twitter, using the standard API. The social media  
platform hosts over 300 million users worldwide (Fiegerman, 2017) and the data is publically  
accessible. A purposive sampling was employed. The choice of data source and size was  
strategic as we strived to mitigate the limitations of survey research and create a rich and  
extensive timeline of concerns regarding online learning. First of all the data composed of first-  
person narratives not influenced by framing of survey questions. The queries for data collection  
covered the period from January, 2018 thru September, 2022 and were created as follows.

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3 The four terms that fall under the umbrella of distance learning: online learning, online class, e-  
4 learning, and elearning were paired with nine terms signifying dissatisfaction: hate, despise,  
5 loathe, abhor, detest, survive, grueling, awful, and horrible. Considering limited resources and a  
6 large set of terms representing negative sentiments (Pang & Lee, 2008; Resources, 2022), a non-  
7 exhaustive search was conducted. This yielded a raw dataset of N=62,874 unique comments.  
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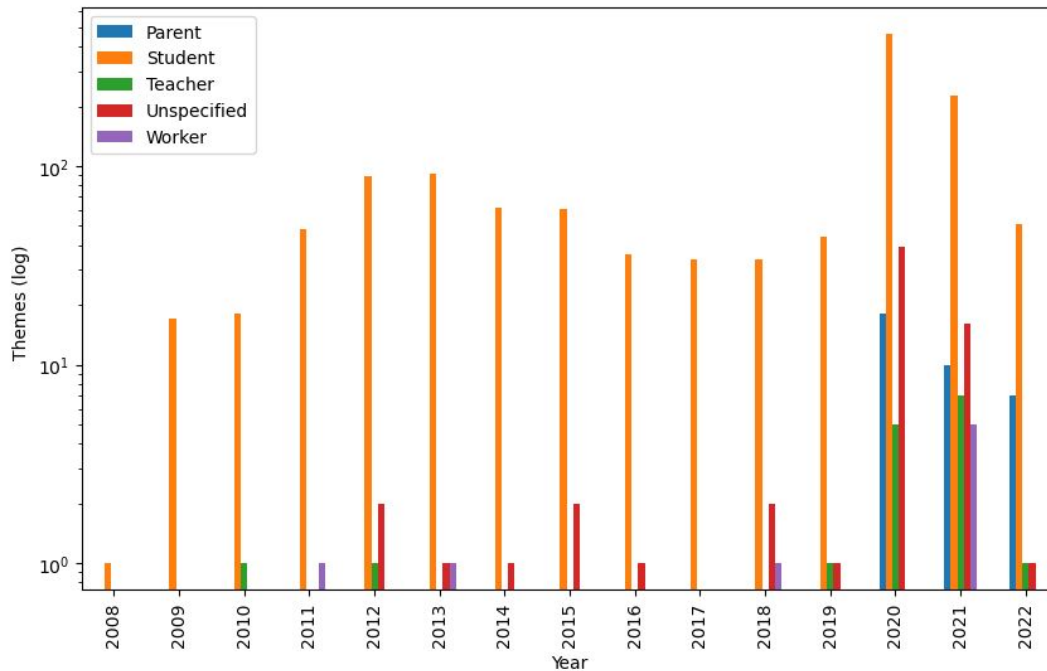
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12 A random sub-sample of 5% or n=3,144 unique comments, hereafter referred to as the primary  
13 dataset was drawn from the raw data. The first purpose was to identify concerns regarding  
14 distance learning, the second was to organize them in groups, the third was to examine patterns  
15 in data, and the fourth was to explain the observed phenomenon and discuss its implications.  
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20 The Grounded theory approach (Corbin & Strauss, 2014) was employed. Data underwent three  
21 levels of coding and yielded four categories: technology, course design, course delivery, and  
22 personal factors. The data was further organized by stakeholders: students, parents, teaching  
23 staff, and working professionals, because each group had their own grievances. Tables 1 and 2  
24 depict the coding structure. Data was independently coded by two coders. The inter-rater  
25 agreement was measured by Krippendorff's (2011) Alpha coefficient yielding a reliability score  
26 of  $\alpha = 0.88$ .  
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32 To answer the first research question— what are the reasons for dissatisfaction with distance  
33 learning—a subset of n=1,144 comments, hereafter referred to as the reasons dataset, was  
34 created. The criteria for inclusion were as follows. Comments were included if they were written  
35 in English, and mentioned at least one negative aspect of distance learning. Comments that did  
36 not specify the reason e.g., “I hate online class” were excluded. The sample composition was as  
37 follows: Students n=1047 (91.52%), Parents n=25 (2.19%), Teachers n=16 (1.40%), Workers  
38 n=8 (0.70%), Unspecified n=48 (4.20%). Considering the source of data, our sample included  
39 comments from stakeholders from a variety of learning contexts from K-12 to post-secondary  
40 systems.  
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50 When multiple reasons were provided (e.g., issues with both technology and course design) each  
51 was assigned a separate code. This, in turn, yielded a list of n=1,400 themes or reasons related to  
52 negative perception of distance learning. Figure 1 depicts the distribution of reason by  
53 stakeholder over the 14 year period is on logarithmic scale to magnify low values. There was a  
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notable increase in the volume of comments during the period of Covid lockdowns, so was the diversity of stakeholders. In the later paragraphs we shall separate the data into two periods—prior to 2020 January and later, to compare the nature of grievances.

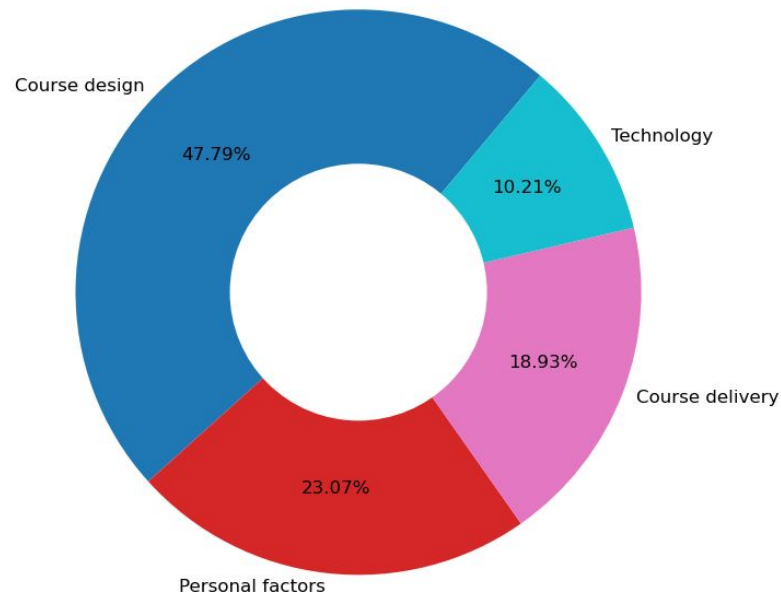


**Figure 1.** Timeline of theme frequency by stakeholder

## Results

Our analysis identified 28 thematic groups organized across 4 categories representing areas of concern, depicted in Figures 2 thru 4. Course design was by far the most significant source of dissatisfaction (47.79%), followed by personal factors (23.07%), and course delivery (18.93%). At 10.21% technology came in the last place. In the next section, we shall identify the parts of the learning process that made stakeholders feel dissatisfied with their experience.

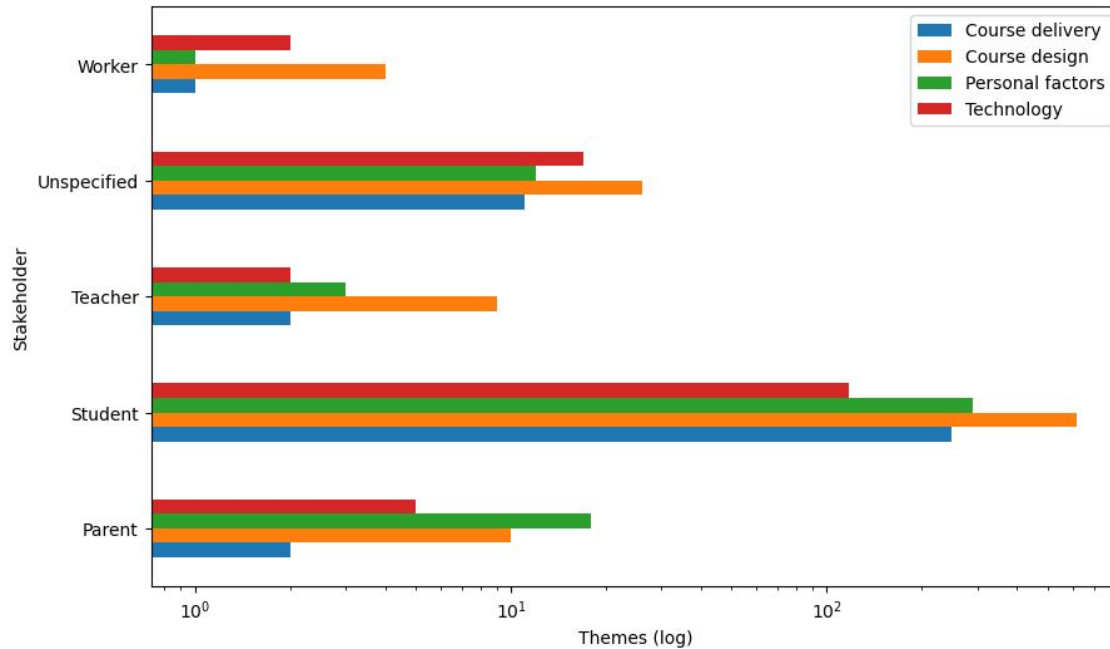




**Figure 2.** Areas of concern expressed as percentage

When the results were organized by the stakeholder (Figure 3), course design was the area of highest concern for students, teachers, workers, and unspecified stakeholders; however, parents were more concerned with competing responsibilities which fell under the personal factors category. Technology came in the second place for workers and the unspecified group of stakeholders. The second largest area of concern for students and teachers was personal factors, and for parents it was course design category. Technology concerns came in the last place for students and teachers, but for teachers there was a tie between technology and course delivery. There was also a tie between personal factors and course deliver for the workers.





**Figure 3.** Areas of concern by stakeholder

### What are the reasons for dissatisfaction with distance learning?

The reasons that explain why students felt utterly dissatisfied with distance learning were organized into 28 groups. Table 1 and Figure 3 provide a snapshot of stakeholder experiences. Figure 4 provides a detailed breakdown of reasons for the entire 14-year period. The temporal patterns as well as stakeholder-specific patterns will be discussed separately in the later sections.

The results show that the learning activities category (11.93%), which encompasses the exercises that foster learning, was the single largest contributor of dissatisfaction in the e-learning environment. Learning activities that involved peer-to-peer interaction such as discussions  $n=105$  (7.5%), group work  $n=37$  (2.64%), and videos  $n=19$  (1.36%) were ranked highest on the list of grievances.

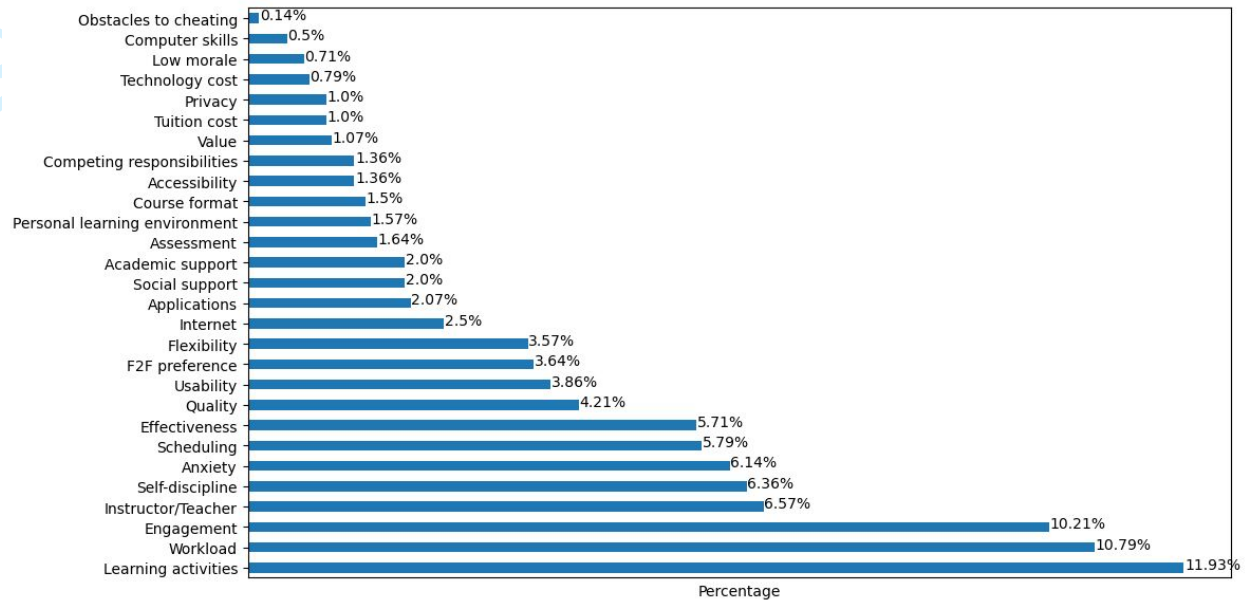
Much of the experience was described as “pointless” and “forced conversation” which was exacerbated by the proportion of these activities; students were often expected to make weekly contributions to class discussions. Some comments underscored pretentiousness and a lack of substance in class discussions e.g., “straight bs in these online class discussions.” Moreover, a grading scheme whereby students must reply to someone else’s response for full credit was

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3 perceived as unnecessary. Live group chats received similar criticisms. One student noted a  
4 seeming paradox whereby, instructors in online class express frustration with students who do  
5 not interact with peers, but in the traditional learning environment the frustration is expressed  
6 toward students who choose to interact with peers. Two different standards are applied to the  
7 same behavior—forcing collaboration in the online environment, and punishing it when teaching  
8 offline. Group work was another learning activity that was perceived without much enthusiasm.  
9 One reason was that students may be paired with others whom they never met. One comment  
10 read “I don’t work well with strangers.” Some have raised the issue of fairness; it is not fair to be  
11 penalized for someone else’s lack of interest or predisposition to procrastinate. Here again,  
12 students who were forced to collaborate and “waiting for others to do their part” did not have  
13 control over the outcome or their grades.  
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23 Moreover, much of the e-learning involved watching videos or producing videos for class  
24 discussions or personal introductions—both were perceived negatively. Videos were also said to  
25 be a rather unpleasant part of the onboarding process for new employees, who are required to  
26 watch corporate training videos.  
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31 Social anxiety was a theme that often appeared in relation to learning activities that put students  
32 on the spot such as making class presentations. Some students mentioned dislike of the sound of  
33 their own voices; some were concerned about how they appeared on camera, about others seeing  
34 their private learning environment, and about fear of embarrassing themselves in front of the  
35 group.  
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40 Dissatisfaction with assessment practices (1.64%) sat somewhere in the middle. Some students  
41 were not happy with timed high-stakes online exams, and some expressed dissatisfaction toward  
42 continuous assessments that were used in lieu of high stakes exams. Some expressed concerns  
43 about participation marks awarded for adding photos to their online profiles. Some expressed  
44 concerns about being left in suspense after completing an online quiz that did not reveal a grade  
45 or provided feedback upon completion. Some students were asked to submit their handwritten  
46 assignments as digital photographs, which some found to be a logistically challenging task.  
47 Some were unhappy with writing tests during synchronous sessions. The requirement to take  
48 assessments at the designated test centers was perceived unfavorable as it took away the  
49 convenience of anywhere learning.  
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**Figure 4.** Themes expressed as percentage

The issues of a high workload (10.79%) and lack of engagement (10.21%) were also high on the list of concerns. On the one hand, online classes were described as “bland,” “super boring,” “irritating” “meaningless,” and “stupid” among other things. Students expressed concerns about difficulties staying awake during classes and some reported passing time by using social media, streaming movies, playing video games, drawing, and watching pornography. On the other hand the lack of engagement was offset by an overwhelming amount of work. Many found themselves stuck between two unattractive options—uninteresting activities and high workload. The issue of flexibility will be examined separately.

The issue of teaching competence (6.57%) also appeared high on the list. This notion was succinctly summed up by one student as “[some instructors] don’t really get online learning.” Teaching staff were described as “incompetent,” “dumb,” “unorganized”, “control freaks,” among other unsavoury terms. The requirement to ask for permission to use the bathroom during an online class and to keep the cameras always on, were perceived quite unfavorably.

Some instructors chose to pre-record lectures ahead of time, which were then played back during the synchronous classes. The data indicates that the attitudes of some students toward online learning had changed from positive to negative as a result of the poor teaching practices, underscoring the importance of the instructor-student interaction in the learning process.

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3 Teaching emerged with other overlapping themes such as scheduling (5.79%), effectiveness  
4 (5.71%), quality (4.21%), and flexibility (3.57%) of online learning. Some synchronous classes  
5 were scheduled early in the morning or late at night. Continuous assessments entailed working  
6 on multiple projects and keeping track of deadlines, which was perceived as a difficulty for  
7 students struggling with self-discipline (6.36%). Some students acknowledge having poor work  
8 ethic, maladaptive study habits, being distracted by social media, and having tendency to  
9 procrastinate. The question of effectiveness was raised by both students and parents alike. Online  
10 learning was contrasted with the “normal education.” The learning experience was described as  
11 “unproductive,” “ineffective,” and “chaotic.” Students “don’t learn as much” or “get half the  
12 things” done in the e-learning environment compared to the traditional learning environment.  
13 Learning activities were described as “inconsistent,” “weird,” of “poor quality,” and  
14 “confusing.” Syllabi were said to provide conflicting information. The required learning  
15 materials such as assigned readings were not always available at the library. Some students had  
16 questioned their teachers’ motivation to teach online classes when they dislike using technology  
17 for teaching. Teaching strategies were also a source of anxiety; one student wrote “[teacher]  
18 shamed me in front of the class.”  
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31 Academic support (2%), social support (2%) and low morale in an online class (0.71%) were  
32 another set of concerns related to the learning environment. Some students stressed that their  
33 classroom environment was not conducive of supporting their learning. Student-instructor  
34 communication was said to be poor; the response time was slow and often required follow ups  
35 (e.g., “take forever to respond to emails”); some students said they could not ask questions or  
36 receive help—the level of support that was previously available in the face-to-face environment.  
37 Instead of answering questions in a clear manner, some students were referred to the course  
38 website to figure out the solution on their own.  
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46 Many students reported missing face-to-face interaction, not having friends, studying alone, and  
47 not having someone to fall in love with. The social support traditionally provided by peers was  
48 said to be inadequate as some students expressed frustration with inability to form communities  
49 and tackle difficult assignments collectively.  
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54 Class morale appeared to be a lesser issue, with some students pulling pranks on each other,  
55 engaging in mocking and ridicule, spreading gossip, and interrupting the work of others.  
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3 Some students and parents noted the lack of value (1.07%). Considering that in some cases e-  
4 learning courses were more expensive (1%) due to extra delivery or examination fees, the  
5 stakeholders did not perceive the e-learning experience to be worth the money and was described  
6 as “meaningless,” “pointless,” or “troublesome.” Moreover, the role of the instructor in the  
7 asynchronous mode is to facilitate learning, and provide students with an opportunity to learn  
8 independently; however, this was perceived by some as a cheaper alternative to the traditional  
9 mode where students pay for courses but are left to process course materials on their own.  
10 Efficiency was perceived to be attained at the expense of quality.  
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18 The lack of flexibility (3.57%) over the learning process was another reason that made e-learning  
19 unattractive. Some said they had “less control” over learning than in the traditional classroom,  
20 that they did not like the “click next to continue” approach, that some content was locked, and  
21 that they were not able to self-determine either the pace or the personal approach to learning.  
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26 The notion of learning being anytime and anyplace was a double-edged sword because the LMS  
27 was always open; it was not subject to weather-related closures. The assignments were due on  
28 their due dates, even when it happens to be on weekends or holidays. Students were not happy  
29 with either synchronous or asynchronous course formats (1.5%). The absence of personalized  
30 learning options affected accessibility (1.36%). Some students reported having eye strain and  
31 headache due to extended computer use; some reported difficulties hearing their instructors; and  
32 some said that their ADHD was difficult to manage.  
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39 Some students expressed disappointment with online learning because it was not as easy to cheat  
40 as they had imagined (0.14%). Nevertheless, some had shared their cheating strategies, which  
41 include using a popular search engine to find answers, submitting empty or corrupt files that  
42 cannot be opened, to buy more time. Writing quick essays and responses to group discussions  
43 without putting much meaning into it was another theme that emerged repeatedly; in other  
44 words, meaningless questions yield meaningless responses.  
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50 The main issue with technology, in the context of online learning, was that students were not  
51 always able to use it properly (3.86%) due to technical glitches or the interface design that was  
52 not user friendly. The Internet connectivity (2.5%) and computer applications (2.07%) such as  
53 the LMS and video conferencing systems, and the cost of technology (0.79%) were also related  
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3 to students' dissatisfaction with e-learning. While some students reported having slow or  
4 unreliable Internet connection, some were disappointed with the amount of data the synchronous  
5 learning consumed, as their data plans were quickly exhausted. The privacy accounted for only  
6 1% off all concerns. The most common issue was that some students accidentally unmuted their  
7 microphones allowing everyone in the web meeting to hear what they were doing. There was one  
8 report of a security breach of a web conferencing system that exposed students to some  
9 undesirable content.  
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16 As for personal factors, some stakeholders had a clear preference for traditional learning  
17 (3.64%). For some, traditional learning was non-negotiable—it was the only right option that has  
18 no alternatives or substitutes. For some, dissatisfaction was situational, and there was room for  
19 improvement. A fraction of concerns were related to inadequate computer skills (0.5%), e.g., "I  
20 am bad with computers."  
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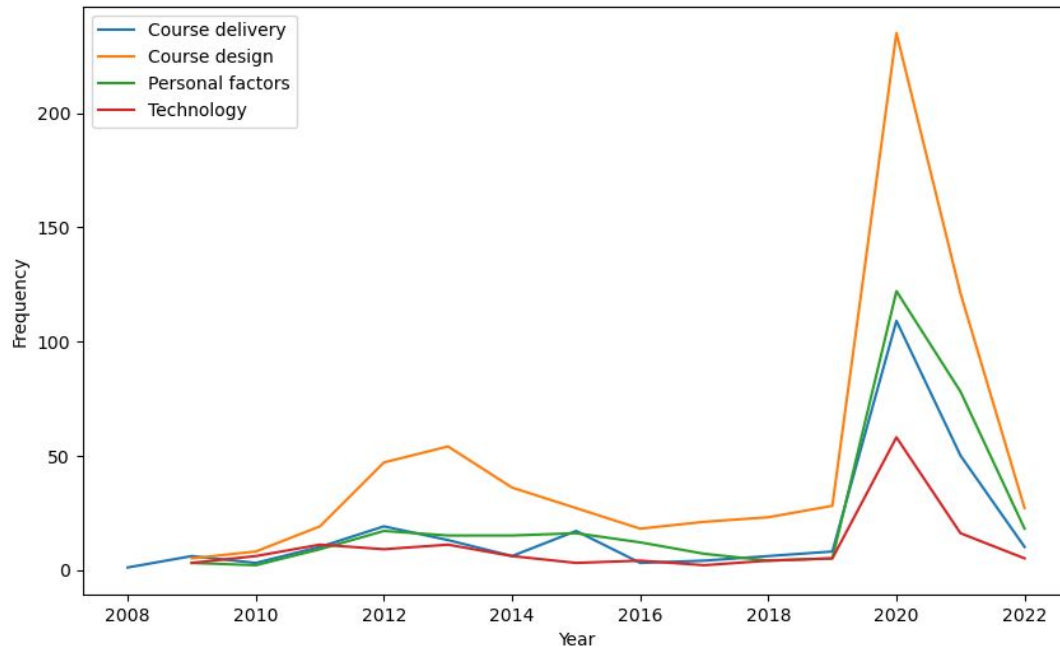
26 The theme of competing responsibilities (1.36%) emerged repeatedly with relation to parents  
27 taking the matters in their "own hands" to help their offspring navigate online learning. During  
28 the period of lockdowns some parents were forced to balance their prior commitments with their  
29 new role of the teaching assistants and IT support technicians. Among other personal factors that  
30 contributed to dissatisfaction with online learning was inadequate personal space for learning  
31 (1.57%). In some cases learning, eating, sleeping, and socializing occurred within the same  
32 room, often shared with other family members. The line between school and home was blurred;  
33 this affected privacy as the whole class could take a virtual house tour without explicitly being  
34 invited.  
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### 42 **Analysis of Time Patterns**

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44 In this section we shall examine how the patterns of concern pertaining to e-learning changed  
45 over time and answer the following research question: when comparing two distinct time  
46 periods—pre and post transition to emergency teaching—what were the patterns of concern over  
47 online learning?  
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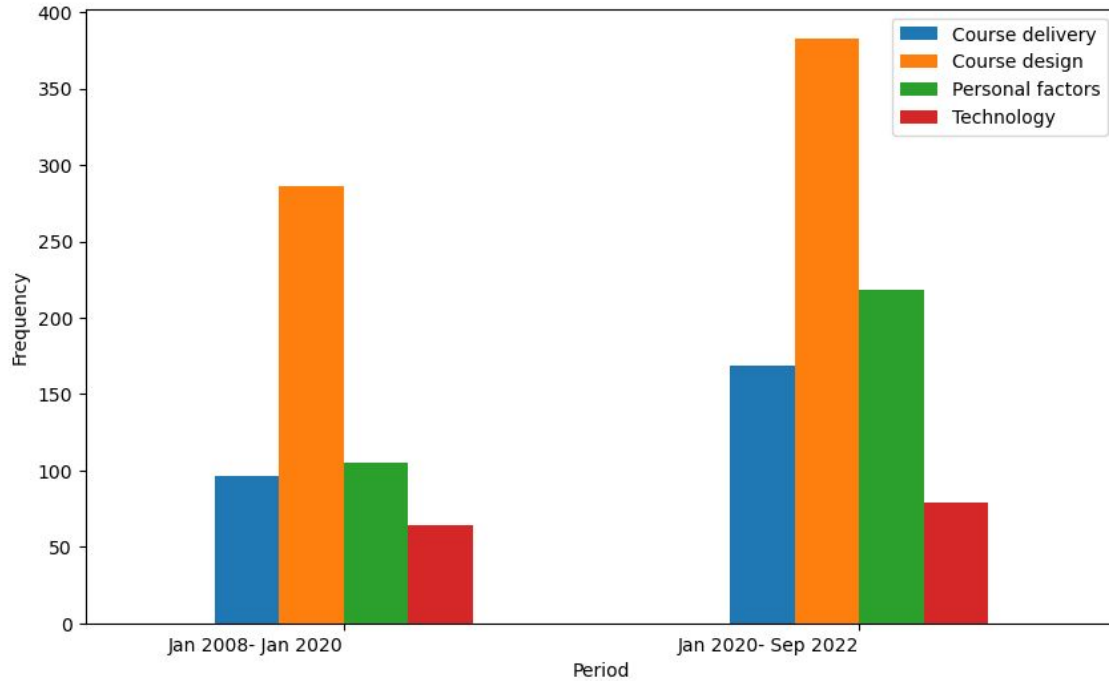
52 The Figure 5 depicts the concern areas across the fourteen-year span from January 2008 thru  
53 September 2022. The graph shows a notable spike in volume of concerns that coincides with the  
54 Covid pandemic.  
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**Figure 5.** Areas of Concerns Timeline

The reasons dataset was divided into two periods from January 2008 to January 2020, and from January 2020 to September 2022, containing (n=551) and (n=849) themes respectively, and organized into four categories, depicted in Figure 6. The pattern of concerns appears to be similar in both cases with course design grievances claiming leading the way, followed by personal concerns, course delivery issues, and technology-related challenges in the last place.

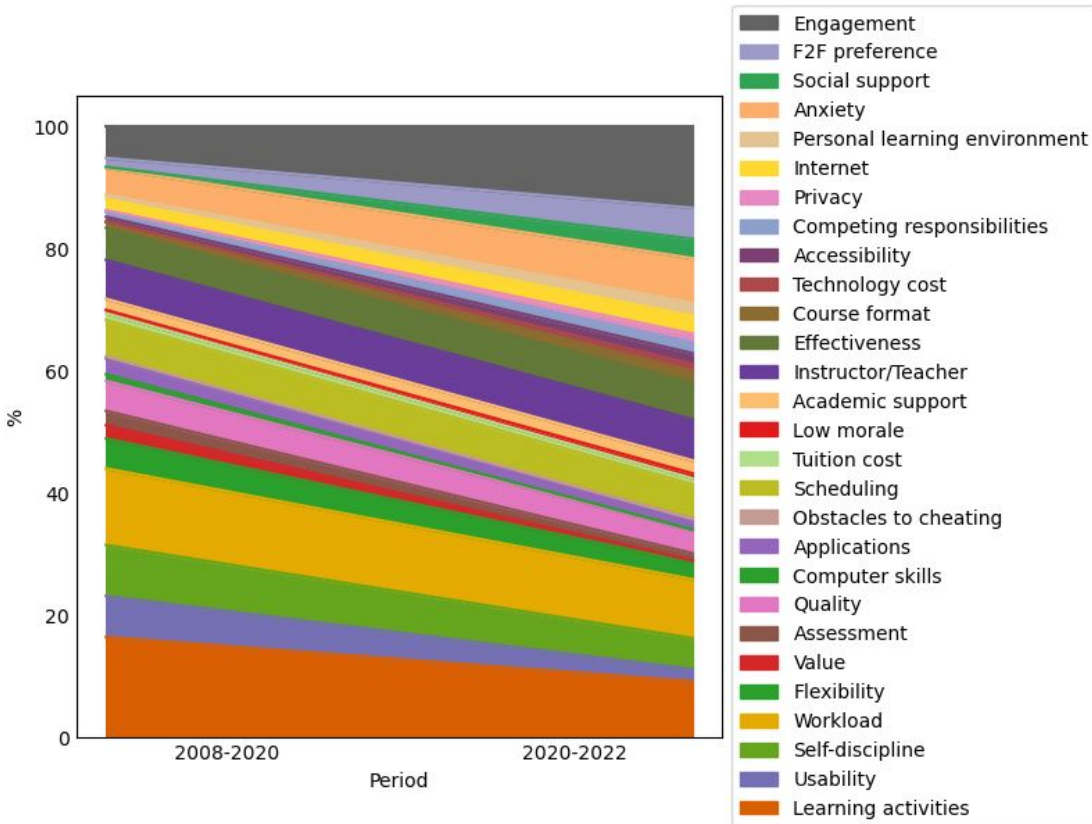




**Figure 6.** Areas of concern during two time periods

A closer look revealed a greater disparity in the areas of engagement (5.26% vs.13.43%), personal preference for traditional learning (1.45% vs. 5.06%), social support (0.18% vs. 3.18%), and anxiety (4.36% vs. 7.30%). There were no obstacles to cheating observed in the later period. Furthermore, there was a drop in the volume of themes pertaining to learning activities from (16.33% vs. 9.07%), usability from (6.72% vs. 2.00%), self-discipline (8.35% vs. 5.06%), workload (12.52% vs. 9.66%), and flexibility (4.90% vs. 2.71%). Themes sorted by time period are depicted in Figure 7.



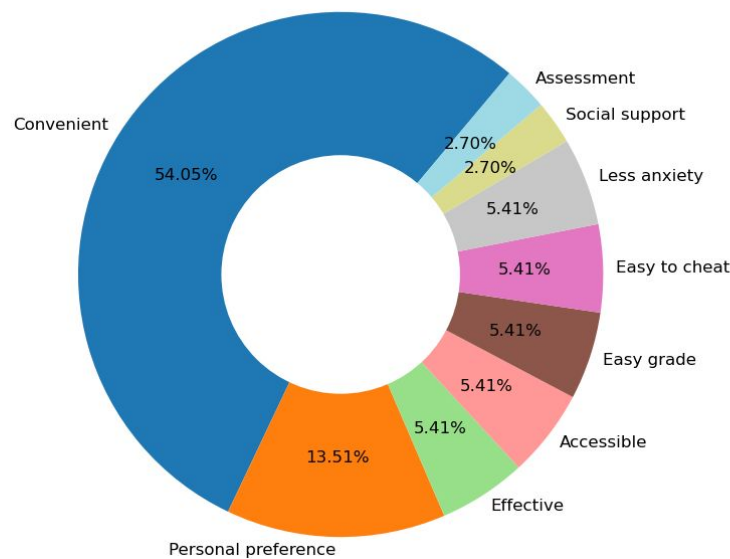


**Figure 7.** Percentage change in theme frequency between two time periods

### Additional Findings

During the coding process we have identified a handful of comments that expressed mixed and positive attitudes toward distance learning that warranted further examination. To this end, one additional subset of the primary dataset, hereafter referred to as the mixed perceptions dataset was created. Comments were included if at least one positive aspect of distance learning experience was mentioned. Out of  $n=56$  comments (by  $n=55$  students and  $n=1$  parent)  $n=26$  expressed positive attitude, and  $n=30$  expressed mixed views of e-learning. We identified  $n=57$  themes, all by students, highlighting the benefits of e-learning. When online learning was described as a “love-hate relationship” coded reasons were included in their respective datasets. This was a by-product of sampling strategy whereby negation of the search terms (e.g., “I do not hate e-learning”) would result in their inclusion in the raw data.

One comment reads “[online learning] is like heaven to me.” The overarching theme in this modest sample was that of convenience derived from flexibility, allowing one to multitask (e.g., study during work hours). For some studying at home was considered a more accessible option that provoked less anxiety. Continuous assessment approach, where assignments replace high-stakes exams, was perceived as an attractive feature of distance learning for some students. Some perceived that it was easier to pass or cheat in an online course. A summary of benefits were depicted in Figure 8.



**Figure 8.** Positive themes associated with online learning

## Discussion

In the following paragraphs we discuss the results and answer the last research question of what are the implications for practice and future research.

We have identified 28 themes thematic groups across four categories pertaining to the learning process that were perceived as unfavorable by the stakeholders. Although course design emerged as a top concern, dissatisfaction with online learning arose as a combination of a multitude of factors including those that lie outside of the institutional control. When online learning was delivered en masse during the pandemic, not every student, instructor, parent, administrative and technical support cadre was prepared to ensure smooth functioning of the remote learning process. Muilenburg and Berge (2005) maintained that students who did not have prior

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3 experience with online learning perceived greater barriers than those who did. Our findings  
4 suggest that some students perceived online learning unfavorably even weeks before the classes  
5 commenced. Online learning has its use cases and should be approached methodically and  
6 carefully. Many students need to learn how to learn online, while many instructors need to learn  
7 how to teach online. One will be tempted to assume that the solution is as simple as trying to  
8 eliminate as many concerns as possible; indeed the learning experience is likely to be improved  
9 as a result; however, it is unlikely that the issue will be addressed in its entirety.

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16 The solution as we see it is twofold. First, one needs to remove barriers to learning and ensure  
17 that the marriage of technology and teaching practices is conducive of teaching and learning.  
18 The second issue is that learning experience needs to be personalized to account for individual  
19 differences, which are outside of the institutional control. The one-size-fits-all approach, as we  
20 have seen so far, is likely to make some stakeholders feel discontent; some concerns will be  
21 impossible to reconcile. For instance, in a study by Dodd et al. (2021) almost a third of surveyed  
22 students said that they preferred studying online. In our sample, we found evidence that some  
23 stakeholders found e-learning beneficial due to convenience and flexibility, but there was also  
24 evidence that some stakeholders had a strong preference for traditional learning and were not  
25 open to compromise. This particularly concerns parents of school-aged children who were forced  
26 to assume the roles of unpaid teaching assistants and technical support staff without any  
27 consultation or consent.

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38 The underlying thread connecting grievances is that stakeholders have individual needs; these  
39 may come in conflict with the efficiency driven model of public education. The educational  
40 process is catering to the average learner—a persona that represents the ideal case scenario for  
41 the institution which is concerned with budgets, resources, and efficiency. Much of the effort is  
42 placed on adapting students to fit the system, as opposed to trying to adapt the system to fit the  
43 student. It is easier to reject those who do not fit the institutional template than to accommodate  
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51 Some students prefer self-paced learning and seek flexibility, while others do not see any value  
52 in it and demand to be guided every step of the way. Thus, a teaching strategy can be perceived  
53 both favorably and unfavorably, depending on the individual. However, when a course website  
54 fails to load properly, when parents' intervention is required because the course website is not  
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3 user-friendly, or when a teacher resorts to public shaming or allows bullying to continue, the  
4 environment would not be conducive of learning. Moreover, ignoring the principles of Universal  
5 Instructional Design (Pliner & Johnson, 2004) is unlikely to provide an adequate learning  
6 experience.  
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11 Yet, out of three thousand plus complaints we have reviewed, we did not come across a single  
12 concern regarding immersive learning or educational games. Much of the dissatisfaction  
13 stemmed from perceived ineffectiveness, lack of engagement, meaningless assignments, and lack  
14 of self-determination. Higher education is often an expansive endeavor, and stakeholders have  
15 every right to demand quality. Our findings tally with that of Reid, Thomson, and McGlade  
16 (2016) who stressed that students perceived unfairness when they did not received value for their  
17 money. Adaptive learning environments hold a promise to personalize learning and mitigate  
18 some of the challenges (Alwadei et al., 2020; Lam et al., 2021; Shaikh & Khoja, 2014), however  
19 we do not see much of their presence.  
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27 In their thoughtful analysis of the cost effectiveness of online and face-to-face instruction,  
28 Bartley and Golek (2004) stressed that the “main barriers associated with the online learning  
29 environment lie not with the technologies currently available, but with the pedagogical  
30 assumptions and conceptions underlying their use... Many practitioners fail to reframe their  
31 conceptions of learning and teaching in the online environment, leading to extremely damaging  
32 consequences for the learners involved in the training” (p.168). Considering that this was written  
33 almost two decades ago, our progress toward effective online learning system has been rather  
34 slow and perhaps even regressive.  
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42 Distance education is not a single approach to teaching and learning but a diverse set of  
43 strategies that allow learning to occur in the environment where learners and instructors are  
44 separated by the time and space gap. The outcome, which can be measured in a variety of ways  
45 ranging from student performance to satisfaction with the learning experience, would depend on  
46 the choice of strategies that may or may not be congruent with the task at hand. Two decades  
47 ago, in attempt to create a theory of e-learning, Nichols (2003) proposed ten hypotheses, one of  
48 which was that the “choice of eLearning tools should reflect rather than determine the pedagogy  
49 of a course; how technology is used is more important than which technology is used” (p.3).  
50 However, much of the literature and our data suggest that technology is used as a proverbial  
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3 Maslow's hammer where default and widely familiar features as such discussion forums, video  
4 lectures, and linear "click next to continue" presentations became its core features. While  
5 participation in online discussions has its merits (Michinov et al., 2011) , one should be cautious  
6 using it as a universal solution to treat every case of procrastination or to boost performance.  
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8 Everything has its time and its place.  
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12 The role of the instructional designer is to identify the optimal set of strategies and align  
13 pedagogy with technology. Morgan and Belfer (2007) stressed that "good implementation relies  
14 in part on the course design" (p.233). Student experience hinges on their expertise to conduct  
15 accurate needs assessments, to ensure that course content is accessible, to design materials that  
16 foster engagement, and to test usability of the learning management system before students  
17 enroll. Our findings tally with that of Reid, Thomson, and McGlade (2016) who noted that  
18 students were overwhelmed with the large work load. Goda et al. (2015) attributed missed  
19 assignment deadlines to students' poor resource management skills and insufficient time.  
20 However, it would be important to separate the two. This raises the question of whether the  
21 chosen learning strategies were enabling poor study habits or the expectations were unrealistic  
22 under the circumstance. Some other questions that future research should examine are: how  
23 diverse the instructional strategies are in practice, and how much influence do instructional  
24 designers have over the process of teaching and learning?  
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36 In our sample, course design was the single largest category of grievances related to the online  
37 learning experience. One may be tempted to attribute the problem to the emergency nature of  
38 remote learning during the Covid lockdowns; however, our data suggest that the pattern of  
39 student concerns was similar to the pre-pandemic period. Our findings highlight that much of  
40 the discontent arose from the choice of learning activities such as groups discussions. A study by  
41 Wester et al. (2021) noted a decline in class participation over the course of the semester. A  
42 study by Dodd et al. (2021) further underscores the point that online interaction with peers and  
43 instructors was perceived to be more challenging in the online mode.  
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50 A study by Moore (2014) concluded that peer interaction and self-discipline were the strongest  
51 predictors of student success and satisfaction, the two common themes that emerged in our  
52 sample. The concerns raised in the literature regarding student interaction with peers or  
53 instructors can be addressed in variety of ways, the simplest of which is to utilize the default  
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3 features in the LMS and make forum postings mandatory. The expressed grievances concern the  
4 quality as opposed to quantity of interaction. When students describe learning activity as  
5 “pointless” and “forced conversation,” the diminished enthusiasm toward participation should  
6 not come as a surprise. A study by Cole, Shelley, and Swartz (2014) highlights this point; while  
7 students consider interaction important and they prefer hybrid courses, the volume of  
8 communication per se is not sufficient to predict performance. The results denote a positive  
9 correlation between the rate of peer interaction, failure rates and dropout rates.  
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16 Dissatisfaction with online learning was exacerbated by course delivery and more particularly by  
17 inadequate support, poor communication, and lack of flexibility. The emergency remote  
18 teaching, the term used by Ní Fhloinn and Fitzmaurice (2021) to describe the rapid shift to online  
19 learning during the Covid lockdowns, can be said to be a special case of online learning where  
20 students had to partake in whatever alternative learning arrangement their academic institution  
21 provided them with, or risked losing the entire year’s credits, while academic institutions did not  
22 always have adequate time or access to expertise to adapt their courses to the online format in a  
23 short time frame. Furthermore, 90% of instructors in Ní Fhloinn and Fitzmaurice’s (2021) study  
24 did not have prior experience teaching online courses, and perceived their experience stressful,  
25 difficult, and time consuming. It would be safe to assume that their frustration was not contained  
26 completely, which made some students question their teacher’s motivation to be involved in  
27 online learning when they were not eager to use the technology. In at least one study instructor  
28 attitudes toward e-learning were found to influence student satisfaction (Sun et al., 2008). Future  
29 research should examine student perceptions of their instructors’ efficacy to teach with  
30 technology and also instructors’ ability to serve as role models.  
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43 Our findings tally with that of Sun et al. (2008) who stressed that course flexibility and course  
44 quality play a role in student satisfaction. Some academic administrators strove to ensure  
45 continuity of academic services, while the teaching staff strove to regain the control over the  
46 learning environment. Moreover, Engelbrecht (2005) noted a tendency to emulate the traditional,  
47 instructor-centered model of teaching. Convenience and flexibility, the core features of distance  
48 learning, were not fully realized. According to our data, some students were required to keep  
49 their cameras on and some were required to ask permission to use bathroom, while learning from  
50 home. These seemingly arbitrary requirements, were reported to yield rather negative effects on  
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3 student privacy and social anxiety. Video lectures and group activities during online class may  
4 be used to emulate that of face-to-face mode and delivered through the web-conferencing  
5 technologies. E-learning has a potential to provide students with personalized experience and  
6 enable them to learn at one's own pace. Such approach, however, would require resources and  
7 modification of the already established processes. A teacher-centric strategy offers more control  
8 over the learning environment.  
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14 The issue of academic integrity, although an infrequent theme in our data, suggests that the  
15 suspicions of many practitioners that some students may exploit institutional inability to control  
16 the remote learning environment (Lancaster & Cotarlan, 2021; San Jose, 2022) are well founded.  
17 However, contrary to the popular belief that it is easier to cheat in the online courses, our data  
18 suggests that cheaters were often disappointed because cheating was not as easy as they  
19 anticipated. The question for future research is whether excessive control (Harwell, 2020)  
20 yielded any significant benefits, and whether the means justify the ends.  
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27 Some studies point to a link between student satisfaction and learner interaction (Asoodar et al.,  
28 2016). However, it is important to highlight that the conclusions do not speak for all of the  
29 students, but rather represent the views of the majority or a hypothetical average student that  
30 craves interaction. The present findings challenge this notion and suggest that students are not  
31 dissatisfied with e-learning per se, but with the one-size-fits all policy or instructional strategy  
32 that disregards the need for individualized approaches. If any of these studies were used to  
33 inform policy makers or influence practitioners to include collaborative activities such as group  
34 discussions or recording video introductions, a portion of students would inevitably feel  
35 dissatisfied, particularly when no alternatives are provided. Moreover, learner interaction is a  
36 broad term that has quantitative and qualitative dimensions. Video conferencing and forum  
37 postings are both considered interactive activities, though may be perceived differently under  
38 different conditions. For instance, a video chat can be used to answer student questions, to  
39 provide individualized support, to present group work, or it can be used for invigilation of online  
40 assignments. Similarly an online forum can be used to post news, updates and assignments, to  
41 foster a sense of community, or to track participation. What follows is that any one strategy can  
42 serve different purposes and thus, it would be misleading to label it simply interactive or to  
43 categorize it as e-learning. When students feel anxious posing in front of the camera or using a  
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3 microphone, when they do not see any relevance in group discussions to the real world, when the  
4 learning management system is hard to navigate, they are not frustrated with e-learning but with  
5 those who failed to make it accessible, convenient, and relevant.  
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9 The distance learning entailed a shift in the division of labor between parents and academic  
10 institutions. E-learning blurred the distinction between the external learning environment such as  
11 classroom or college auditorium and student's home. For school-aged children family members  
12 become partners in the learning process; they are expected to replace academic support staff who  
13 ensure that students have everything they need to go about their day and strive to become happy  
14 and well-rounded citizens. Unless the distance learning process is designed in such a way that it  
15 maximizes student autonomy and minimizes parental involvement, it is likely to add an  
16 additional burden to family members. This is the crux of parental dissatisfaction with e-learning.  
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24 Considering that it is the prerogative of educational institutions to design and administer the  
25 learning and divide labor between parents and schools, parents have little say and are expected to  
26 accept the type and the amount of student support, schools allocate to them. Put another way,  
27 schools know that parents are there to support their children and there is no mutually accepted  
28 guideline that stipulates how much of the learning process can be shifted back to parents.  
29 Moreover, there are no incentives to prioritize parents' concerns over that of the school boards;  
30 the latter are in charge of the teaching process.  
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37 Much of the research into distance education ignores the collaboration between school and  
38 family. Although parents are a key stakeholder in the learning process, their involvement is taken  
39 for granted. Our findings tally with that of Oppermann (2021) and Liu, Zhao, and Su (2022) as  
40 there is evidence to suggest that parents were more involved in school activities as some parents  
41 took the matter in their "own hands." Future research should also examine whether students are  
42 learning more at school or at home.  
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48 The original aim of distance education was to make learning more accessible to students who are  
49 otherwise excluded by the traditional system. It was an attempt to expand education for those  
50 who hold jobs, live in remote areas, serving in the military, or serving time, and, therefore,  
51 unable to attend regular lectures on campus. The profile of a distance learner is different from  
52 that of the traditional student who enters college right after high school, in that the former group  
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3 is more mature and expected to study on their own with minimal supervision; to succeed they  
4 need to have the necessary self-discipline, intrinsic motivation, and enough energy to persevere  
5 through learning activities on top having other commitments.  
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9 Technology related concerns were the least mentioned in our sample. A handful of comments  
10 (0.5%) mentioned inadequate computer skills; our data aligns with other studies. Sun et al.  
11 (2008) reported that their participants (78.6%) had intermediate level of computer skills; Dodd  
12 et al. (2021) reported that the majority of participants (85.4%) in their study were confident with  
13 using computer; and the majority of participants (67.7%) in the Muilenburg and Berge's (2005)  
14 study said they felt confident with online learning technologies. Digital natives would not be  
15 immune to technical failure or to confusing application interfaces, as such close attention should  
16 be paid when designing user experience.  
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24 However, sometimes technology fails and some students experienced difficulties submitting  
25 assignments and connecting to online classes. When the learning is conducted in a synchronous  
26 fashion, unreliable connection or expensive data plan may pose a barrier to learning. The  
27 question here is whether contingency plans were in place to help learners who experience  
28 connection issues?  
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33 Lewis, Rice, and Price (2012) stressed the importance of accessibility and user experience. The  
34 authors argued that “[p]roblems with Elearning arise not from the user, but from the fact that  
35 Elearning takes much too long to load and is not user friendly.” This position, however, puts  
36 greater emphasis on technology over pedagogy and instructional design. Technology provides  
37 the means to bridge the time and space gap and its quality is as important as that of the learning  
38 process. Technology is necessary but not sufficient for the creation of knowledge. When the  
39 Internet connection is reliable and its speed is high, but the course materials are confusing, when  
40 the class morale is low, when instructors do not communicate clearly or provide support, when  
41 the course website or the learning management system (LMS) resemble a maze, or when the  
42 principles of Universal Instructional Design (Pliner & Johnson, 2004) are ignored, one may  
43 safely assume that e-learning will be deemed as problematic.  
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## 52 53 54 55 **Conclusion** 56 57 58 59 60

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5 In this study we examined the first-hand accounts of students, parents, instructors, and working  
6 professionals regarding their experiences with online learning during a fourteen-year period from  
7 early 2008 to late 2022. We identified 28 thematic groups organized across 4 categories  
8 representing areas of concern in attempt to explain the discontent with the online learning  
9 process. Lederman's (2020) prediction that online learning will be turned into "a pale imitation  
10 of what the best in today's online learning" was realized. An argument can be made that the  
11 concerns our research highlighted were previously raised in the literature and should have been  
12 taken into account. We argue that what was portrayed as ineffectiveness or inferiority of distance  
13 education, is rather a failure to identify and address stakeholders' needs. Many of the same  
14 concerns identified in our data are echoed in the literature. These include: flexibility, course  
15 quality, usability of the LMS, diversity of assessment strategies, quality of communication;  
16 instructors' e-learning expertise; quality of technology, usefulness, engagement, and availability  
17 of academic support (Asoodar et al., 2016; Dyrbye et al., 2009; Sun et al., 2008).  
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29 We hope to soon see online learning to provide a better—more personalized, accessible,  
30 convenient, engaging way to pursue education. Learning environments can provide immersive  
31 and meaningful learning or used as document repositories to dump content on students. Behind  
32 every course, online degree program, learning management system, decision to invigilate  
33 assessment there is a person with a vision and expertise. Perhaps now is the time to ask why  
34 some online learning has not changed in over two decades and what would constitute the black  
35 swan moment that would change it for the better?  
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### 43 **Study Limitations**

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45 Sampling technique and methodology are limitations of the study. Considering the nature of the  
46 social media platforms, one's ability to define participant parameters is limited. The dataset was  
47 composed of the following fields: date, username, and comment. In contrast to survey research,  
48 where participants can be asked to share their demographic information, social media research  
49 does not have this luxury. The data is often historical data and the attached personal profiles are  
50 incomplete, as such the ages of the commenters could not have been extracted. The comparisons  
51 are made not at the individual-level but at the group level. As such, the outcome is a holistic or  
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3 inclusive depiction of persona and a bird's eye view of the issue at hand. The emphasis is not on  
4 the individual but on the issue that affects community as a whole. Moreover, survey research is  
5 commissioned by researchers and prone to the social desirability bias (Krumpal, 2013), while  
6 social media discourse is unsolicited and exists independent of any research activities. The latter  
7 is not created on demand but discovered; it constitutes human communication in its raw form; it  
8 provides a rare opportunity to observe and measure the visceral reactions that would be  
9 otherwise suppressed in the formal setting.  
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16 Our data represents the English-speaking population located worldwide. It is possible that the  
17 regional data may vary depending on the local policy context. Furthermore, the data shows a  
18 spike in the number of comments during the Covid pandemic as academic institutions  
19 transitioned to e-learning. To mitigate this disparity, we conducted two types of analyses—one  
20 covering the entire 14-year period, and the other of two time periods—pre and post lockdowns,  
21 which allows us to compare stakeholder perception of e-learning under normal conditions, and  
22 that under emergency remote teaching (e.g., Ní Fhloinn & Fitzmaurice, 2021). Although this was  
23 as an exploratory qualitative study, the findings provide valuable insights into the experiences of  
24 students and teaching staff in secondary and post-secondary systems as well as parents and  
25 employees taking e-learning courses at work. The frequency of stakeholder concerns can be used  
26 as a quantitative measure of relative dissatisfaction—a baseline for future research.  
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