

# Analyzing the Effects of Remote Learning on RIT Students\*

Jeffery B. Russell<sup>†</sup>

*Fourth Year Computer Science Student at RIT*

*CUBRC Research Assistant*

*RITlug President*

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Conducting qualitative research is quintessential in implementing public policy because it enables us to understand our complex political and social environments better. This research project aims to gain a deeper understanding of the effects of RIT's decision to conduct remote classes and have students go home. Two methods were employed to collect data. First, we interviewed five participants using grounded theory; second, we did artifact review on images received from participants that describe their mood.

The major takeaways from this research are that the pandemic affects everyone differently; some people were well prepared to deal with this where others struggled with remote class. College in America has been viewed historically as the great equalizer; however, sending people home has re-introduced introduced economic, social, and physiological struggles for people to overcome. This paper weighs some policies that RIT could implement in the future semesters to make remote learning more manageable for students.

**Keywords:** COVID-19, Public Policy, Qualitative Research, Artifact Analysis

## I. BACKGROUND

The recent COVID-19 incident required us to shift our way of living to combat the virus. Schools closed, borders closed, everything came to a halt[6]. As people now reconcile working and learning from home, we are learning about the social impact that it has on people daily. Within the RIT community, this pandemic is affecting certain people disproportionately. Many people are finding it hard to adjust to remote learning due to family and other issues where the sudden exodus from RIT caused a housing panic for other people. Recently the researcher

has blogged a bit about their own experiences<sup>1</sup> as a way of coping with this new normal. With all these struggles, we need to understand how people are affected by the COVID-19 policies so that we can learn how to mitigate unintended negative externalities better.

## II. RESEARCH QUESTION

This research topic is going to narrow the scope from the pandemic at large, to specify how the epidemic has affected RIT student's academic lives.

- After doing remote learning, what are people's sen-

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\* Submitted as a PUBL-201 assignment at RIT

<sup>†</sup> jeffery@jrtechs.net, jxr8142@rit.edu

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<sup>1</sup> <https://jrtechs.net/other/working-remote>

timents towards it?

- Has the pandemic affected certain disproportionately more than others?
- Has remote learning put tension on people’s social and family lives?

### III. CURRENT POLICY

This work will specifically look at RIT’s policy that closed campus and shifted all learning to be remote. This policy was implemented by RIT on March 15th, 2020, and got communicated to all students via multiple channels of communication<sup>2</sup>.

### IV. METHODOLOGY

This research conducts two different methods of data collection and coding. After all the data is collected, it got analyzed holistically. Data got collected between 4/15/2020 and 4/22/2020.

#### A. Material Culture Review

Based on prior work done with analyzing photographs of an event, this work aims to do the same by asks the participants to take the pictures themselves [1, 3]. Participants uploaded photos that they think describes their time social distancing. Gathering photographs is a powerful technique because it allows people to express what they are feeling in a single graphic– the old saying goes: ”a picture tells a 1000 words”. People posted pictures of their desks, empty streets, or family; the point is to

capture the moment. Analyzing photographs such as the ones taken during WWII[4] have provided exciting insight, so doing one in live time on the effects of COVID on students would be interesting.

Photographs were collected on Discord servers with RIT students<sup>3</sup>. With the photographs, we can extrapolate sentimental data. Photographs help tell the story and account as to what is going on. Although we, as researchers, can imagine what other people are going through, seeing pictures would help the researcher conceptualize it more. Images were collected and sorted into folders on a computer and submitted along with this paper.

#### B. Interview

This research conducted five semi-structured remote interviews of RIT students. Each interview took approximately a half-hour to perform. During each interview, field notes were recorded and attached as Appendix B.

Applied Action, in conjunction with the Critical Humanism framework, was used to analyze and learn each person’s truth. Critical Humanism falls on the radical change and subjective views spectrum. We chose this Critical Humanism because we are seeking to pull out varying viewpoints from people and enact change with them.

Appendix A illustrates the template interview script. Since this is following the action research paradigm, an unstructured interview process allowed us to probe the interviewee better and pull out relevant information. The interview template contains the critical questions being asked, along with probing questions.

<sup>2</sup> <https://www.rit.edu/news/rit-encourages-students-not-return-campus-courses-resume-march-23-through-alternative-modes>

<sup>3</sup> <https://discordapp.com/>

## V. FINDINGS

This section discusses what was discovered by conducting interviews and collecting images.

### A. Interviews

Appendix B contains all the field notes of the interviews. Field notes got coded and analyzed after all the interviews got concluded. Our results got broken into a few central sections: home, remote-learning, productivity, social.

#### 1. Home

For many students our age, the question of where home is not a decisive answer. Many college students at RIT have had autonomy for the past few years and are now more or less forced to live back with parents. However, not everyone has parents that they can go home too, or doing so would be putting them at a higher risk of getting the virus. People in their twenties are in a weird period of their lives where they are living with parents, roommates, at school, or with a spouse— where "home" is for quarantine can vary.

One common thread was that the decision to close housing on the RIT campus created considerable panic for many students as to where they would spend the next few months. I had to sign a lease an apartment and move halfway across the state. Other people interviewed had to move their stuff across the country. Two of the participants were agitated that RIT decided to close on-campus apartments since they were probably just as safe as where they call home.

Of the participants interviewed, 80

Due to the patchy internet of one participant at his

home, he said it took him 24 hours to upload an assignment for a class, and it is often hard to do video/voice calls for class meetings. Another person noted that due to his internet continuously going out, he found it hard to work continuous blocks of time. At RIT, the facilities provided state of the art internet and fantastic facilities for people to get their work done. With remote classes, people are no longer in even playing fields. One participant had a dedicated office to work in, where another was battling with their siblings for a place on the kitchen table to get their work done.

#### 2. Online Classes

The one complaint that all participants had was that there was no consistency in online classes. Delivery was not always ideal, and it was hard keeping up with a bunch of channels of communication from classes. Some classes kept to their regular allotted times and did Zoom<sup>4</sup> calls. As noted by two respondents, these can be difficult to carry out for college classes in particular because people are in different time zones. One participant noted that he had not attended a single one of his 8 AM zoom calls because it would require him to get up early since his timezone is behind. Apart from zoom, RIT professors are doing a slew of other delivery methods for remote classes:

- Weekly readings with discussion posts
- Recorded lectures
- Lecturers recorded by professors at other universities

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<sup>4</sup> <https://zoom.us/>

- Distributing slide decks and having students look at them
- Synchronous chat room meetings (no video or voice just chat)
- No meetings or classes at all– just continue the term project
- Distributing images of a chalkboard with information on it

All of these methods are not as productive as others in terms of communicating the course material. Depending on the class, students have varying opinions on them. One student noted that he appreciates that this asynchronous method of delivery has enabled him to spend far less time on what he called "joke" classes and focus more on the harder, more rigorous courses he was taking that semester.

The universal message between participants was that the classes that were initially delivered online are doing relatively well on the online format; however, the professors that had to adjust last second have struggled. Although zoom meetings are great on paper, participants noted that the professor tended just to ramble. Nobody thought that they were getting the same amount of content out of the material but, believed that people dedicated to learning the material would be able to do so.

### 3. Productivity

Of the participants interviewed, only one found that his productivity was not affected by the shift to online learning. All the other participants stated that remote learning had decreased their productivity. One participant, in particular, noted that it was challenging to work

in the same place that he slept; however, he had no other places he could work.

Two of the participants noted that their sleep schedules remained relatively healthy. Two others stated that their sleep schedules shifted a bit because they no longer have to get up so early for classes. The final participant indicated that he is primarily nocturnal and gets all his work done at night. It is not uncommon for college students to be the kings of wacky sleep schedules; however, remote classes have exasperated the situation.

### 4. Socially

Participants noted that they could keep in touch with their friends online. This response comes at no shock since this generation has grown up with technology and is familiar with how to use it for communication. Most participants did note that they fell out of contact with the people on the fringes of their social group. People miss being able to talk to the acquaintances that they have met on campus– old classmates, professors, co-workers, that random guy that apparently knows you from something. Although participants remained in contact with friends, they said it lacked the same intimacy that it had when it was on campus.

### 5. Future Policies

All participants responded in a state of disbelief when they asked what policies we should implement if this were to last for another eight months. Two participants immediately said that they would do another co-op or take a gap year in their education. When asked about standardizing classes, they all agreed that that would be a good thing. Participants also expressed that there was a

need for continued flexibility and leniency to account for people in different locations and environments.

Nobody wanted stringent exam regulations like select universities already have[5]. There is bound to be cheating when it comes to online exams. One participant noted that on his last math exam, every student got between a 97-100, where this has traditionally been the exam that people struggle with and require a curve. The best thing we can do is plan and shift the course to the point where students could get evaluated using a final project rather than a final exam. Alternatively, at the very least, change the test from knowledge regurgitation to applying the knowledge, so it is harder to look up the answers on search engines.

## B. Photography Artifact Review

The initial call for photographs received relatively little feedback; however, after following up with people, we were able to get more people to submit pictures. Photographs got solicited from four different RIT discord servers and one Slack server. The call for images message got slightly tweaked for each site; however, the typical message read, "Hey folks, I am doing my final research project for qualitative policy analysis on the server was the impacts of colleges going remote. I am collecting data using a few different formats, including images and interviews. If you lovely people could post a picture that you think captures your experience/trials of remote learning, that would be much appreciated. Images could be of pets, zoom meetings, desks, allnighters, anything that captures your vibe lately. – sorry for the everyone mention but, I want a bunch of responses and think this would be a fun thing for the server to do." A total of 31 images were collected.

We ended getting some depressing results as results for photo submissions – one photograph I received had a noose in it. This image did not come at a great shock because the general sentiment on a lot of online discourses has been extremely negative over the past few weeks of remote learning. In particular, the RIT Reddit <sup>5</sup> has had many people vent and express their concerns and trials of remote learning. Reddit is known for a healthy level of narcissism; however, this last month has been exceptional. It did come at a shock that people sent us those images over Discord because it is not anonymous, and we know everyone there. These images were likely satirical way; however, they were not excluding them from this research because they were the first images received (almost immediately) and represent how dark the mood has gotten recently.

The images were divided based on three codes for further analysis:

- Work environment
- Socially
- mood

### 1. *Work Environment*

This category covers all the images that reflected the work environment of remote learning. It was interesting to see all the work environments that students have. One thing to note is that not everyone had the same quality of working conditions. One person appeared to be working on a coffee table in the living room where other people had elaborate setups with big desks and multiple monitors. Several images of pets with captions such as "My re-

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<sup>5</sup> <https://www.reddit.com/r/rit/>

note work companions/distractions” were received. This category got the most pictures, as most people ended up sending images of their workplaces. Figure 1 illustrates the two polar opposite ends of the spectrum. A zip file contains the rest of the artifacts.

### 2. *Socially*

This category covers the social aspects of remote learning. This category did not receive a ton of images. There was one image of someone playing a VR game; however, that image was before the pandemic. There were a few images of people in group chats. The only takeaway from these images is that the respondents were trying their best to distance themselves using appropriate measures socially.

### 3. *Mood*

This category covers everything that covers the mood of remote learning. This category received some of the most exciting and most depressing images. One person submitted a picture of a french fry as seen in figure 2 and stated: ”it captures the smile you show on zoom when you’re secretly dying inside because you are unmotivated and sad you have to stay inside.” Remote learning has not been psychologically beneficial for students.

## C. Common Themes

We can draw a few conclusions from both the artifact analysis and interviews. The first is the vast differences in the respondents and their different experiences as remote learners during this pandemic. Academia is supposed to be the great equalizer but, now that we are all tossed in different environments, that is no longer the

case. We see that each participant had a vastly different experience with remote learning. While some people had minor difficulties with the adjustment, others saw it as a significant hurdle to jump over.

## VI. DISCUSSION

The first thing worth mentioning is that this research is not all-encompassing. When collecting images, one alumn facetiously noted: ”not a student, but I sure hope accessibility is a part of your research, especially considering the crowd RIT has.” Although we did not include accessibility in this research, that is an area of potential research. Given that the researcher does not know any deaf students, conducting that accessibility research would have been challenging to initialize during social distancing—taking an emic approach would be ideal. Collected images and interviews were based on people that the researcher knew and who were accessible on various platforms of social interaction like Slack, Zoom, and Discord. Acknowledging this, we did not manage to interview people that were socially isolated and not a part of any friend circles. Future work can entail researching a broader scope of people.

### A. Future Work

There are two significant areas for future research questions with this realm. The first is how do we better optimize remote learning. We found that many students struggled with the transition to online learning. The second area for future work lies in how we can improve how we self isolate from each other. We struggle to stay motivated and remain in a positive mindset because humans are social animals. While some may do well in self-

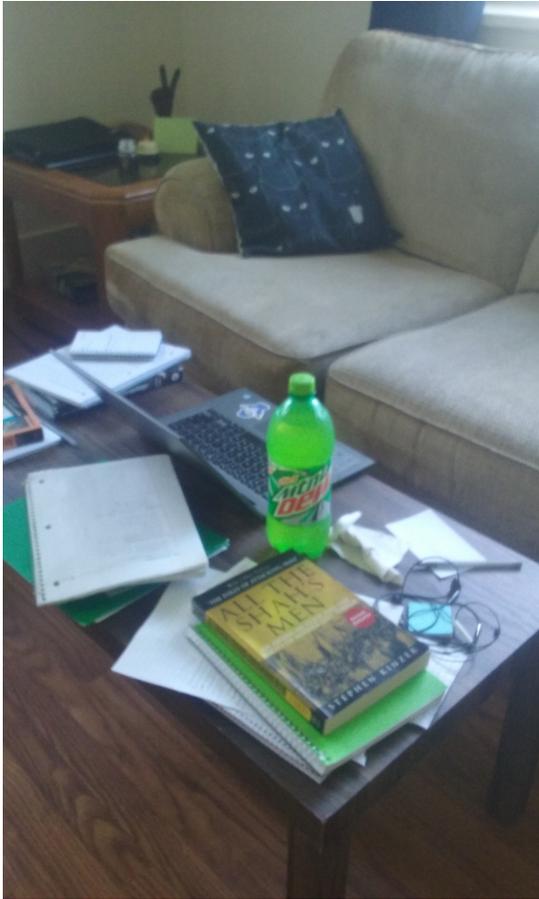


FIG. 1. Varying working environments



FIG. 2. Given with the caption "it captures the smile you show on zoom when you're secretly dying inside because you are unmotivated and sad you have to stay inside"

isolation in the short term, in the longer term, research has shown negative consequences in almost all cases [2].

### B. Conclusions

A slew of factors ranging from economic, social, and mental all tie into the success of someone working remotely. We must look at how we craft public policy because it affects everyone. Remote learning was before optional, but with the pandemic, it became mandatory.

Although one may read this paper and immediately see all the negative consequences of remote learning, we must not linger on that because social distancing is essential if we are to overcome COVID-19 and future disease

[7]. The main takeaways from this should be the things that we should do in the future to avoid the problems that we saw when RIT did remote learning this time. The sudden decision to close the campus and go remote created a housing panic for many people. In the future, acting early on to the pandemic would have been beneficial. Many students found it hard to do remote classes in their current state. With more time to prepare for online courses, professors would be more equipped to transition their classes online in a unified, coherent fashion.

## VII. ACKNOWLEDGMENT

This paper got submitted as an RIT PUBL-201 project for professor Blankley's class. The code used to generate this report can be found on the researchers Github<sup>6</sup>.

### A. Appendix: Interview Script

- What year student are you at RIT?
  - What is your major?
  - When do you graduate?
- How have you been affected by the decision to close down campus?
  - Did you have to find a new apartment? Living with family?
  - Did you already retrieve your things from campus?
- How have remote classes been going?
  - Do you feel better or worse about remote learning?

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<sup>6</sup> <https://github.com/jrtechs/PUBL-201-FINAL/>

- Did the pass/fail option lessen any stress?
- Do you feel like your getting enough information out of the class as compared to physical class meetings?
- Where do you typically get most of your work done?
  - Is it hard to get motivated to get work done?
  - Has your sleep schedule changed?
    - \* Are you working at weird hours?
    - \* Is this a positive or negative thing for you?
  - Do you have more distractions when working remotely?
    - \* internet?
    - \* family?
    - \* Environment (noisy neighbors, pets, etc)?
- How has doing remote classes affected you socially?
  - How are your friends communicating?
  - How are your family communicating?
  - Are there certain people/groups of people you no-longer talk to?
  - Has this put any stress on certain relationships?
  - Acknowledging that we would have to continue social distancing for at least a few more months, are there any policies that would you like to see RIT implement?
    - Are teachers that make assignments open at 8:00 AM and due at 9:00 AM putting an undue burden on the student?
    - Should RIT do more to help standardize the way classes are ran online or should each class be unique.
    - Are online exams fair or accurate?

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