Long Paper

Sentiment Analysis of Students' Perception towards the Implementation of Limited In-Person Learning: A Post-Pandemic Perspective

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Abstract

Purpose – This article is the second in a series on the opinions of students (also referred to as respondents). The preceding article in this series concentrated on sentiment analysis of students' online learning experiences. In this paper, the students' opinions about their learning condition and thoughts or feelings toward the implementation of limited in-person or face-to-face learning were investigated.

Method – The sentiment analysis was utilized in the study particularly in obtaining the polarity, subjectivity, and presentation of visualization results. A total of 459 respondents answered the two open-ended questions were obtained 918 unstructured responses. A total of 27,316 words underwent data cleaning and data pre-processing. Text classification using sentiment analysis was performed.

Results – The result revealed that the respondents' learning condition is combined with positive, negative, and neutral sentiments. The opinions to implement limited in-person learning were dominated by positive thoughts. Students' thoughts on the implementation of limited face-to-face learning were expressed based on their learning conditions, experiences, and expectations.

Conclusion – Undoubtedly, the COVID-19 pandemic has challenged students' financial, social, and mental well-being. They have to deal with the major issues brought on by educational system disruptions, which decreased their interest and enthusiasm in learning. The learners' concern about returning to school was expressed as both positive and negative. Their negative views indicate valuing what is more important during a health crisis just like the Covid-19 pandemic.

Recommendations – Educators need capability pieces of training where approaches and instructional methodologies are emphasized in the course syllabi which take health precautions into account for learners both in the face-to-face and online modality.

Research Implications – The overall sentiments provided insights to administrators and educators of the learning institutions to re-think and make sound decisions in the execution of their plans in welcoming back the learners successfully.

Keywords – limited in-person learning, face-to-face classes, opinion mining, sentiment analysis, post-pandemic

INTRODUCTION

The Philippines has one of the tightest and longest lockdowns in the world and it is still unclear if the country is prepared to reopen its schools to regular face-to-face

instruction (Sarmiento et al. 2021). In response, the government issued the CHED-DOH Joint Memorandum Circular No. 2021-001, which set down the rules for limited face-to-face (in-person) classes during the COVID-19 pandemic. As stated in the guidelines, offering limited in-person classes is not required. The concerned Higher Educations Institutions (HEIs) shall assess their preparedness for they are given the discretion when they intend to conduct face-to-face classes during a pandemic (CHED, 2021). The need to conduct in-person learning help convey to students that they matter (Vaillancourt et al., 2021). Students feel their importance and their engagement in the class could be highlighted. Alshahrani and Ally (2016) found that higher quality of learning could be achieved in face-to-face learning. Students' engagements with other learners and their teachers can be observed and help bridge the gap between in-person teaching of lessons and lessons that are taught online.

The students, as one of the major clientele of the educational institution, may form ideas and opinions regarding the implementation of limited in-person learning. This is similar to the idea (Nthontho, 2017), that students have the right to know what is going on and to have access to information that interests them. They can then comprehend issues, question them, and form their own opinions about these topics. Additionally, as cited in Nthontho, (2017), stated that the extent to which students can express their ideas and feelings may reflect how much they are recognized as stakeholders. To show and understand the grievances of the students, one of the methodologies to show it is the use of Sentiment Analysis (SA). It is a sub-discipline of data mining which is also known as opinion mining (Tedmori and Awajan, 2019) in counting and analyzing qualitative data to understand people's opinions. Medhat et al. (2014) also stated that sentiment analysis is a computational method for handling the subjectivity, sentiments, and opinions of the text. It is the activity of using text analysis and natural language processing (NLP) to detect, extract, and evaluate subjective information from textual sources. Sentiment analysis focuses on the task of identifying a given input text as positive, negative, or neutral based on its sentiment polarity. Yaqub et al. (2018) added, that SA involves an examination of subjectivity. Text subjectivity analysis is a part of sentiment analysis where researchers classify a text as opinionated or non-opinionated using natural language processing. A value close to 0 indicates that a text is objective, while a value close to 1 indicates a very subjective text (Yaqub et al., 2018).

The Cavite State University – Silang, Campus (CvSU-SC) is implementing limited in-person learning beginning the first semester of the academic year (A.Y.) 2022-2023. This in-person attendance of students on campus calls for strategic and systematic measures to avoid health-related issues due to the threat of CoVID-19. For this reason, the researchers utilized sentiment analysis in obtaining and analyzing students' opinions on the implementation of limited in-person learning. Through sentiment analysis, the researchers performed a computational study of their thoughts, feelings, assessments, appreciations, attitudes, and emotions (Mawane et al., 2020). To be able to understand the learners' opinions, this study is guided by two questions: (1) What is the learning condition of the respondents during the pandemic?, and (2) What are the thoughts or

feelings of the respondents about the implementation of limited face- to- face classes?. The result of the analysis may help school administrators in formulating or adjusting policies relevant to the conduct of limited in-person learning. The analysis seeks to process students' sentiments as a basis for possible expansion or reduction of the limited in-person classes. The implementing rules and guidelines on the conduct of limited in-person learning may also be adjusted based on the results of this study. Educators can use student feedback as a valuable resource for information to improve learning processes (Dalipi et al., 2021). Sentiments can be a useful source of information for improving policies in higher education institutions (Kastrati et al., 2021). From these views, sentiment analysis serves this function well (Estrada et al., 2020).

LITERATURE REVIEW

The shift to online learning modalities to reduce the risk of face-to-face interaction is one new reality brought on by the global health crisis (Dayagbil et al., 2021). The CvSU-SC as one of the learning institutions faced the same problems and has migrated the face-to-face classes to online delivery. This sudden shift provided positive and negative implications in the teaching and learning processes. The students' online learning experiences during the pandemic had been revealed through a machine learning analysis. Different issues related to the Internet connection, technology resources, quality of instruction, motivation, engagement, and others were reported (Santiago et al., 2022). When students during online learning have adapted well to the e-learning resources, digital meeting platforms, online learning systems, and learning engagement as utilized by the teachers and the learners as claimed (Santiago et al., 2021), it is also significant to explore the thoughts of the learners towards the implementation of the limited face-to-face learning. Aside from the challenges the learners' had been experiencing in purely online learning, it has been difficult for teachers to maintain the academic interest of the learners. By analyzing the learners' thoughts or feelings, the school administrators, educators, and learners will have a forward-looking framework of the preparations, expectations, and experiences in the implementation of limited face-to-face or in-person learning. To provide welcoming and safe environments for all learners, schools must assess all of their experiences and needs (Darling-Hammond et al., 2020).

It could not be set aside that online learning offers diverse experiences for individuals taking various courses. However, different obstacles and opportunities for technological comfort, time management, community, and pacing may arise as a result of the variety of formats that online learning might take (Hollister et al., 2022). Online students experience challenges due to the instructor's absence of face-to-face engagement and the longer response times for inquiries (Adnan & Anwar, 2020). Technology and the classroom environment influence the online learning engagement of the learners. The technological demands of online learning can sometimes intimidate learners and teachers especially if they begin without enough technical help or understanding. Online learning in the past two years of the pandemic had been facing issues from the perspectives of learners, parents, and teachers. The learners in Hollister

et al. (2022) reported declining attendance and engagement during live lectures, which also led to low engagement during lectures in online learning. The majority of students had trouble keeping in touch with their classmates and teachers as well as controlling the pace of their academic workloads. Butnaru et al., (2021) assert that the learners' response depends on their comfort level with accessing online resources and how the students and instructors manage the learning activities. The learners' experiences in online classes are different from the traditional face-to-face classes, and patterns of engagement seem to differ between the two. Compared to traditional face-to-face classes, online programs provide learners with a different learning environment, and patterns of engagement appear to vary. Kemp and Grieve (2014) added that learners feel more alienated from their classmates and professors. They as well feel greater pressure to be self-directed in their academics and get less support from them. Furthermore, low social presence indicates that learning interactions are also low (Bali & Liu, 2018). Students who were enrolled in online learning had considerably lower ratings in each of the five areas of proficiency — participation, communication, preparation, critical thinking, and group skills (Foo et al., 2021). Engagement and participation in group projects rely on the learning modality and the instructor's expectations for evaluation (Gillett-Swan, 2017). The three levels of student involvement that Bolliger and Martin (2018) identified were learner-learner engagement, learner-instructor engagement, and learner-content engagement. Findings implied that instructors and students both recognized the value of each of these three engagement strategies and agreed that some mix of them should be employed for online learning. Brown (2021), asserts the three degrees of student engagement and participation – learner-learner engagement, learner-instructor engagement, and learner content engagement and suggested that it is best to prioritize and concentrate on one or two of them depending on the objectives and subject matter of the class. In doing so, a balanced student engagement plan will encourage student involvement and improve learning results.

In the increasingly digital environment of tertiary education, there is a need for further study into what works and what does not in online learning, as well as for a focus on the students' experience (Kemp & Grieve, 2014). In the implementation of limited face-to-face or in-person learning, the learners' digital participation will still happen. The teaching and learning processes in face-to-face or in-person learning can be meaningful through interaction and can be achieved due to their presence in the environment where teachers and learners socially interact. Student classroom engagement can be behavioral, cognitive, and affective which are observed by teachers. A growing body of research demonstrates that face-to-face instruction motivates students, fosters a feeling of community and belongingness, and gives learners much-needed reinforcement (Singh et al., 2021). In the classroom, it enables teachers to better recognize the weaknesses, strengths, and nonverbal cues of the learners and will allow them to utilize interventions that will facilitate a better learning experience. The teachers' presence helps to reinforce the learners' academic learning experiences since it motivates them, in addition to the atmosphere that keeps them interested. Although teachers play a significant role in boosting students' learning through motivational support, students' learning is not

entirely dependent on their motivation. Students' intrinsic motivation to carry out or complete a task can help them learn more (Johnson, 2017). The differences between traditional and online learning may be recognized in terms of primary information sources, assessment, or educational quality (Coman et al., 2020). For Nycz and Cohen (2017), the quality of education in face-to-face learning is determined by the knowledge and skills of the teachers, while in online learning, the evaluation may be carried out with the aid of tools and systems that allow students to obtain information from various documents uploaded on the platform, and the quality of education is influenced by the level of training that teachers have in using technology. Since the context of this study is limited to the perceptions of the learners who are required to attend classes on campus (e.g. practical activities, laboratory subjects), it is expected that blended learning will take place - in some courses where teachers need to incorporate online instruction.

METHODOLOGY

PROFILE OF THE PARTICIPANTS

The participants of the study were students from four departments distributed in Table 1 according to their department and year-level information. From the 459 study participants 412 (89.8%) responded that they were fully vaccinated (2 doses of Covid-19 vaccines), 28 (6.1%) are not yet vaccinated, while 19 (4.1%) kept the information if they were vaccinated or not.

Table 1. Department information and year level of the participants

Department	N | Percentage	Year Level	N | Percentage
Department of Arts and Sciences	73 (15.9%)	First Year	50 (10.9%)
Department of Information Technology	168 (36.6%)	Second Year	148 (32.2%)
Department of Management	119 (25.9%)	Third Year	132 (28.8%)
Teacher Education department	99 (21.6%)	Fourth Year	129 (28.1%)
Total	**459 (100%)**	**Total**	**459 (100%)**

DATA COLLECTION

It is commonly accepted that the student's responses to questions regarding their circumstances and anticipated events are subjective (Umair et al., 2021). For this research, the survey questionnaire was sent to participants' email addresses taken from the Management Information System (MIS) office of the campus before the beginning of the second semester of the Academic Year 2021-2022. The questionnaire was created using Google Forms which consisted of questions about their department information, degree

program, year level, and the status of their vaccination. Two open-ended questions were asked: 1) *"What is your learning condition at the moment?"*, and 2) *"What are your thoughts or feelings on the implementation of the limited face-to-face classes? "*. The Google Form was open to receive responses for 14 days. Confidentiality and data privacy statements were observed in the form and the research was approved to be conducted on Campus.

DATA CLEANING AND DATA PREPROCESSING

After the data was collected and retrieved using Google Forms, there were 459 unstructured responses which consisted of 27,316 words written in English. These responses underwent data cleaning and data preprocessing. In preparation for natural language processing (NLP), the following steps of data cleaning and preprocessing were observed.

1. *Basic Data Cleaning.* Removes special characters and numbers from the text. It also involves changing the form of words or characters into lowercase.
2. *Tokenization.* Divides the sentences in the text into individual words.
3. *Stopwords Removal.* It is the process of removing words that often appear but do not have any effect in the extraction of text classifications such as the removal of common words like articles.
4. *Part-of-Speech (POS) Tagging.* Attaches a tag to each word from a given set: N for noun, ADJ represents adjective, ADV represents verb, etc.
5. *Stemming and Lemmatization.* Returns the base or dictionary form of each word. The purpose of the stemming process is to eliminate the affixes that exist in each word

After preprocessing, 22,781 words made the final corpus.

DATA ANALYSIS

Text classification using sentiment analysis was performed. The subjectivity, polarity, and sentiment were refined and formed visualizations from it. Polarity analysis was used to determine whether the text represents a positive or negative viewpoint. Polarity analysis with Python Textblob assigns scores for negative and positive polarity to words in the lexicon. These polarity scores range from -1 to 1, with -1 indicating severely negative emotion and 1 indicating extremely positive emotion. A polarity score of 0 indicates that the sentiment is neutral (Yaqub et al., 2018). The TextBlob module was used to perform sentiment analysis in Jupyter Notebook. For visualization, a word cloud was created based on the frequency of word occurrence in the dataset Unigram tokenization was utilized, analyzed, and interpreted. Dharaiya et al., (2020) state that a word cloud is a technique that helps understand the importance of a word in a given document. Liu et al., (2019), mention that several studies consider the word cloud as a primary visualization tool. Unigram tokenization was utilized as it provides higher accuracy compared to other tokenization such as Bigram and Trigram (Tiffani, 2020).

RESULTS AND DISCUSSION

RQ1: *What is the learning condition of the respondents during the pandemic?*

The following word cloud illustrates the diverse learning condition of the learners during the pandemic (Figure 1). The word cloud highlights the learning conditions as provided by the system using unigram tokenization in the Textblob analysis software.
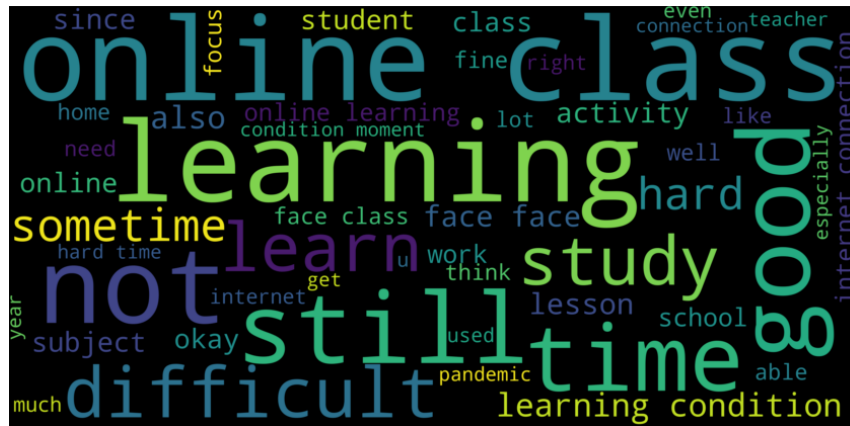

Figure 1. Word Cloud Visualizations of Learning Conditions of the Participants

The focus of students' experiences is learning. Students are often placed in an uncomfortable learning environment, but it is up to the learner to deal with these factors on his/her terms. Students who opt for online learning must have a reliable internet connection and the motivation to complete their tasks successfully. Instructors should tailor their teaching methods to account for the difference between traditional physical classrooms and digital classrooms. With the obstacles encountered, (Suresh et al., 2018) assert the most significant ones are the availability of technology and teachers' capacity to conduct online courses. Prime concerns for online distance education include the planning and development of learning materials that are targeted to the needs of the students to encourage interaction, promote healthy course discussion, and ensure authentic learning in the assessment of student's progress (Santiago et al., 2021). If the teaching-learning delivery is successful, this is an indication that students have a favorable attitude toward online education, viewing it as beneficial and practical during the pandemic crisis (Allo, 2020). These imparted to the learners the value of freedom, autonomy in the learning process, and the use of existing technologies to supplement their educational needs.

Table 1. shows the 10 most occurring words, their frequency, and sample feedback from the learning conditions of the participants. The feedback may contain grammatical errors to show the authenticity of the respondents' sentiments.

Ran	Words	Frequency	Sample Feedback

k			
1	Learning	173	*"My learning condition is not good because I am not motivated, it is a noisy environment and it is difficult to understand the lessons especially when they are actual."*
2	Online	164	*"I actually find it harder to learn thru online than face to face classes. I'm just thankful to have such understanding, helpful and professional teachers."*
3	Class	160	*"I can attend online classes most of the time but i can't totally understand the whole lesson since class time is shorter but there are some lessons that i can study by myself but not all."*
4	Not	109	*"I can't catch up well. I don't know..but I think I failed in other subject at the moment it's good. But my surroundings are not fine especially we are near in highway so that every time that the teachers are discussing there is a very loud noise coming from the vehicle."*
5	Good	93	*"What I'm saying is right now for my last sem. It was quiet good experience and as of now i still have the learnings and credibility to appreciate all my lesson in my last 1st sem last year but i expected more learnings and more lessons for this coming semester"*
6	Time	83	*"I had more time to accomplish my activities, and there was less pressure than the past year when there were face-to-face meetings. It also gives me more time to study my subject's lecture."*
7	Hard	83	*"Sometimes it's hard for me to understand the lesson, because of that I have difficulty answering the activities that were given by our professor. To be honest, I don't really learn, it's really different when the teaching is face to face."*
8	Face	78	*"My learning condition at this moment is all right since I can say that I was able to cope with this new learning set up, although there are some difficulties I faced, like poor internet connection."*
9	Still	76	*"I still find it hard to keep up with the classes and the lessons that are being taught."*
10	Difficult	75	*"I found it difficult to focus in lessons, I found it stressful given the fact that many schoolworks to do in just a day."*

Online learning demonstrated to be successful, especially for shy, easily intimidated, and slow learners who typically lack the confidence to speak out. Online learning allowed students to assimilate information as well as, or even better than, students studying traditionally (Coman et al., 2020). To prosper during a pandemic, certain expectations—such as acquiring technical skills and participating in class must be

met. Along with the necessary skills, both in-person and online learning still demands that students show up, study the content, turn in assignments, and finish group projects while teachers need to create lesson plans, improve the quality of their instruction, respond to students' queries in class, encourage learning, and grade assignments (Paul & Jefferson, 2019).

RQ2. *What are the thoughts or feelings of the respondents about the implementation of the limited face-to-face classes?*

POLARITY (POSITIVE, NEUTRAL, NEGATIVE) OF THEIR RESPONSES

The overall polarity of sentiment scores of the students' views or sentiments regarding the implementation of limited face-to-face classes is shown as positive, negative, and neutral. The analysis is depicted in Figure 2 which reveals students' thoughts or feelings regarding the implementation of limited face-to-face classes. The responses are dominated by positive thoughts or feelings (>300), as opposed to negative thoughts or feelings (>100), and with over fifty (>50) neutral thoughts or feelings.
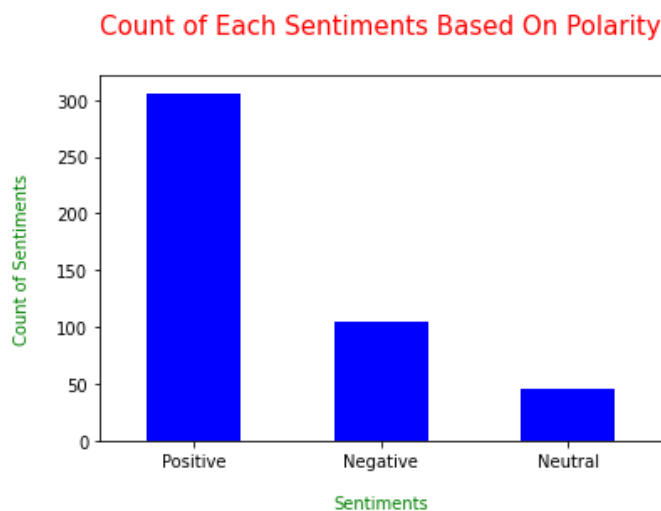

Figure 2. Overall Sentiment Analysis of the Students' Thoughts or Feelings on the Implementation of Limited Face-to-Face Classes.

POSITIVE THOUGHTS OR FEELINGS ON THE IMPLEMENTATION OF LIMITED FACE-TO-FACE CLASSES

Students are delighted to return to classes. They had been eager to interact with instructors and other students in-person so they could successfully absorb the learning material. Students will participate in learning on their terms, with teachers providing

them with the resources and opportunities they need. They feel that in-person teaching improves their learning because some students find it difficult to learn when they go at things entirely on their own. As cited in Singh et al. (2021) stated that students who value face-to-face instruction, in-person class discussions, and organic bonding between faculty and students may not enjoy online learning. Face-to-face instruction has several advantages since it allows for in-person, real-time interaction between teachers and students as well as between students themselves. One of the most frequently mentioned advantages of in-person learning is flexibility. The convenience and flexibility of online learning encourage chances for lifelong learning, which is crucial for people with competing family obligations (Mather & Sarkans, 2018). Other advantages of online learning include cost-effectiveness, the freedom to work at your speed, an engaging learning experience, and the capacity for in-depth discussions (Singh et al., 2021). This engagement can lead to creative queries and discussions where students have the chance to ask questions and receive answers (Paul & Jefferson, 2019).

Further, Kemp and Grieve (2014) found that students strongly preferred having in-person talks in class because they felt more engaged and got responses more quickly than they did when they participated in online discussions. This can be a particularly difficult situation for students, who may not have access to phones or laptops. The lack of stable internet access can also make communication difficult. The absence of necessary technical and mental preparation and academic work overwhelms the learners (Santiago et al., 2022; Mailizar et al., 2020). Many students struggled and discovered that using technology to learn was distracting, so as long as it is safe to return to school, they would do so. The classroom culture has shifted as a result of COVID-19 to one of high distraction (Brown, 2021). It can be asserted that through limited face-to-face classes, it will be simpler to comprehend the difficulties students face in both the major topics and laboratory subjects. Face-to-face education is substantial (Potra et al., 2021) so when teachers are present and providing direction, the student's ability to observe and participate in real-world events is strengthened. When it came to social presence, social engagement, and satisfaction, face-to-face learning was perceived as being superior to online learning (Bali & Liu, 2018).

NEGATIVE THOUGHTS OR FEELINGS ON THE IMPLEMENTATION OF LIMITED FACE-TO-FACE CLASSES

If learners have preconceived negative feelings about the implementation of face-to-face lessons, their health will be given priority. The Covid-19 virus is still present, making learners think and worry more about their well-being and their families at home. In particular, students with parents or grandparents who are vulnerable and cannot take care of themselves may feel more apprehensive. Financial, emotional, physical, and mental well-being are some of the factors linked to the fear of falling ill during the challenging pandemic. These aspects call for stern preparation and assertiveness from the school and government to act out or respond in case they contracted the virus. The students assessed the scenarios and had second thoughts about whether online learning

was already a part of their new normal because of the new Covid-19 virus types, the varying numbers of Covid cases, and the fluctuating alert levels imposed by the government. Another reason why students choose to stay in online mode is the threat of an increase in the cost of transportation. They find learning from home to be cost-effective and easy, and they can be more productive because the expense of transportation and the cost of basic requirements add up to the anxieties. These factors contribute to psychological distress as may have been experienced by the students.

During the COVID-19 school closures, Wakui et al. (2021) documented an increase in negative feelings and the occurrence of symptoms like anxiety, depression, and tension. These experiences had brought concerns and uncertainties to educational systems and learners during the outbreak of the Covid-19 pandemic. Given that interaction is one of the key elements in determining student satisfaction, the sense of isolation and disconnect results in a lack of motivation to study (Potra, et al., 2021). Wu and Teets (2021) reported a decrease in learning engagement, particularly skills engagement, participation engagement, and performance engagement. Moreover, the historic pandemic occurrence made it harder to concentrate on studies, and the students' home settings were not favorable for self-regulated learning, which contributed to the declines in motivation and self-regulation. Online learning has been marketed as being more affordable, practical, and giving more students the chance to continue their education than traditional learning, but it is undeniable that there is a lack of interaction because of a lack of social presence and a lack of student satisfaction (Bali & Liu, 2018). For an online course in which teachers are not physically present to watch student behavior, a teacher report technique would probably be useless (Bagheri & Zenouzagh, 2021).

SUBJECTIVITY AND OBJECTIVITY OF THOUGHTS OR FEELINGS ON THE IMPLEMENTATION OF LIMITED FACE-TO-FACE CLASSES

Table 2 shows the respondents' subjective scores on their thoughts about implementing limited in-person learning. The way that the students expressed their thoughts is under their expectations for the in-person classes. To improve the quality of the teaching and learning processes, teachers and students in a variety of educational types and levels are expected to reduce the elements that have a negative impact on the learning environment. The use of various methods and approaches by teachers that are appropriate for their level, and how engaging the courses are are also key considerations (Ciceki & Sadik, 2019). Their past online learning experiences, which they felt were more likely to repeat, served as the foundation for this. Expressing facts helped the learners grasp and see the situations that were ahead because it is found that their optimistic sentiments were more predominant during the in-person learning. Research suggests that students' attitudes regarding online learning have improved, and they are more enthusiastic about it now than they were before the pandemic (Umair et al., 2021). Students face problems from online learning during the COVID-19 crisis, but it also encourages them to persevere despite the multiple challenging activities they must accomplish each day. However, students prefer greater levels of learning engagement,

assistance from classmates and teachers, and a sense of community in the classroom. Moreover, students receive much-needed support, inspiration, and a sense of camaraderie from in-person instruction (Singh et al., 2021).

It is also deduced that the introduction of face-to-face lessons after nearly two years of online courses and modular learning aids students in a better understanding of the lessons. However, not all of them, especially introverts, prefer in-person instruction since they perform better in online courses. While many face-to-face engagement methods can be adapted and employed in an online context, it is not just a matter of using a universal strategy (Gillet-Swan, 2017) for diverse learners. For those who are unvaccinated, taking classes online is preferable because parents are reluctant to send their children to in-person courses because of the pandemic which could still compromise their health, economic and psychological well-being. Although online education is less effective than in-person learning and teaching, it is clear (Almahasees et al., 2021) that it was helpful throughout the pandemic since online learning issues are related to adapting to online education.

Table 2. The Subjectivity Score of the Students' Thoughts or Feelings on the Implementation of Limited Face-to-Face classes.

Fact-based	240	53%
Opinion-based	217	47%
Total	457	100%

2.3 VISUALIZATION AND TOP 10 MOST OCCURRING WORDS

The following visualization manifests the result of the students' thoughts or feelings on the implementation of limited face-to-face classes. Figure 3 shows that the most occurring sentiments of students are expressed further in Table 2.
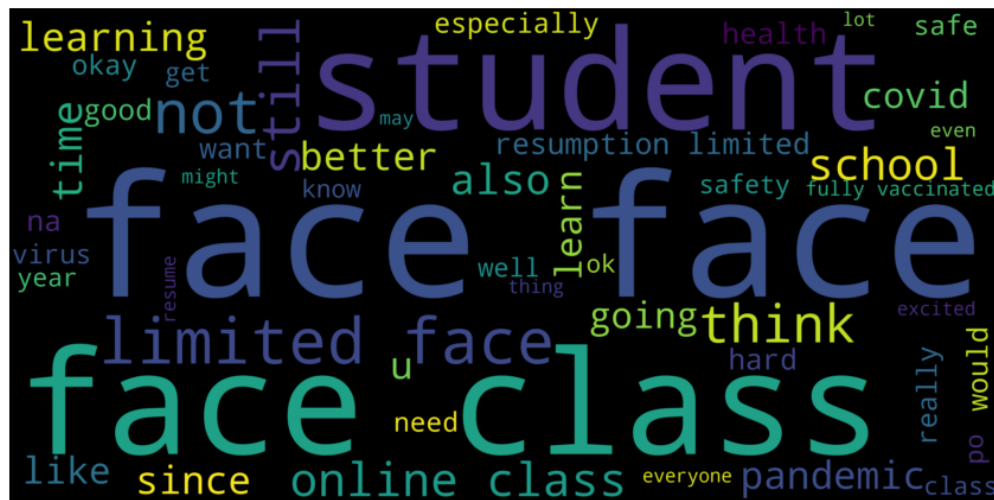

Figure 3. The Visualization Result of the Students' Thoughts or Feelings on the Implementation of Limited Face-to-Face Classes.

MOST OCCURRING THOUGHTS OR FEELINGS ON THE IMPLEMENTATION OF LIMITED FACE-TO-FACE CLASSES

The need for face-to-face classes is still present in education. Distance learning modes cannot completely replace the social aspect of learning where students can engage with their teachers and classmates. Together with students' eagerness to have limited face-to-face classes are their worries associated with the COVID-19 pandemic. Uncertainty is the pandemic's most significant long-term impact, affecting not only higher education but also society at large. There is uncertainty since no one knows how long the virus's effects will persist, where they will be felt next, or how severe they will ultimately be (Jung et al., 2021). Despite this uncertainty, dominant beliefs regarding face-to-face classes surface, such as real learning only takes place in face-to-face (F2F) settings, learning interactions are compromised by distance learning, and too much independent learning is attributed to distance learning (Lomer & Palmer, 2021). Singh, et al. (2021) maintained face-to-face instruction engages students; student engagement entails participation in a particular task or activity in class, with learning as the desired result. Through perseverance, the goal is to get high grades and satisfaction with the quality of educational activities rooted in students' interests and efforts. It is important to the particular outcomes are in the context of school, community, classrooms, and learning activities which develops students' knowledge and skills (Bagheri & Zenouzagh, 2021). It can be measured in either individual or group activities where students work cooperatively to solve, discuss, and compare common problems and elaborate on their ideas among themselves.

Table 3 shows the 10 most occurring words, their frequency, and sample feedback from the study respondents. The feedback may contain grammatical errors to show the authenticity of the respondents' sentiments.

Table 3. The most occurring words of the respondents' sentiments.

Rank	Words	Frequency	Sample Feedback
1	Face	669	*"I feel like I want to resume the face to face classes but also I kinda don't want to. Actually there is a great chance that I won't be able to attend the university if ever we resume face to face to my up coming 2nd sem because my parents would be worried about me and I think we, the students still needs time to adjust back to the face to face learning but still wearing face masks kind of life…"*
2	Class	353	*"For me, the face to face classes are limited, but there is still fear because of COVID, even if you follow the safety precautions, you can't avoid fear, especially since I have a niece at home who has not been vaccinated. so double be careful."*
			"I totally agree in the limited face to face classes for the better

3	Student	221	*quality education for the students."*
4	Limited	164	*"It is much favorable but I hope that the limited face to face will start next school year. Every students are not prepared financially, emotionally, physically and even mentally."*
5	Not	143	*"I prefer to go to school than to attend an online class meeting and have the urge not to listen and just do something else."*
6	Still	134	*"There's a lot of new variants and the virus is contagious. In my opinion, online education is still safer not just for the students but also for the teachers."*
7	Think	112	*"I actually looking forward to have limited face to face classes, I think it will help me more to like gain back the interest that I've lost in online classes. And it will be more interactive and punctual."*
8	Online	96	*"...So for me it's easier now, in online learning. It has many things to consider."*
9	School	76	*"Happy and worried at the same time but it was okay. It's okay as long as the protocol is followed for the safety of everyone at school."*
10	Difficult	74	*"Even though online classes are very difficult too at this time. I think it's fine, but keep in mind the students who commute, as the fare is high."*

CONCLUSION AND RECOMMENDATIONS

This paper focuses on the mining of students learning conditions during the pandemic and their thoughts or feelings on the implementation of limited face-to-face classes at CvSU-SC. Hence, the study investigated the polarity (positive, neutral, and negative), subjectivity, and objectivity (opinion or fact) of students' perceptions. The most occurring sentiments were also revealed both for their learning conditions and perceptions.

Undoubtedly, the COVID-19 pandemic has challenged students' financial, social, and mental well-being. They must deal with the major issues brought on by educational system disruptions, which decreased their interest and enthusiasm for learning. The idea that education is dull or is just a grade game for today's students is frequently treated with students' learning engagement. Throughout the pandemic, many students spoke about both the positive and negative learning environments they encountered. The students still struggle to do their schoolwork despite having the luxury of time for both school-related and non-school-related activities. The planning and creation of learning materials that are tailored to the needs of the students to foster interaction, support healthy course discussion, and assure authentic learning in the assessment of student's progress are among the top priorities for online or distance learning. On their thoughts or

feelings towards the implementation of the limited in-person learning, it was found that students' thoughts were more expressed in positive feedback. The responders are pleased and eager to begin their classes once more to interact with their teachers and fellow students face-to-face and fully understand the course material. On the contrary, if the learner has negative thoughts or feelings over the execution of the limited face-to-face classes, they are prioritizing their health because there is still a chance that they could contract the Covid-19 virus. The subjectivity of sentiments was more expressed based on the student's opinion as compared to fact-based sentiments. They conveyed their ideas in line with what they had anticipated from the in-person classes. The learning environment, teachers' use of various techniques, approaches, and appropriateness, and how engaging the courses are all have a significant impact on learners' anticipations. These sentiments will give insights to the school administrations and teachers to realign the curricula, redesign teaching strategies and instructional materials, address the learners' needs, and provide a balanced perspective for learners attending the in-person classes and the learners staying online.

Regarding safety, the institution must tightly enforce the IATF-DOH guidelines and recommendations of the local government (e.g. physical separation procedures for its students, teaching staff, and non-teaching staff) while in school. School administrators, health and safety coordinator, department chairpersons, and program coordinators should devise a program that will consider favorable learning to other learners who will not be able to attend the in-person classes. Professors and instructors need to be retrained on how to do restricted in-person learning. The course syllabi should be evaluated and updated to take into account the learner's engagement throughout lessons, whether they are online or in person. For future works, a study on varied dimensions of student engagements such as social, academic and intellectual, behavioral and emotional, and cognitive may be explored using other opinion-mining techniques.

IMPLICATION

The general sentiments gave administrators and instructors of educational institutions new ideas to consider the successful implementation of their preparations to the limited in-person learning. The result of the study provided ideas for academic institutions to review their policies and standards, refine their decision-making, and streamline their systems according to the situations and the needs of the learners. It will also benefit other learning institutions implementing the limited in-person or face-to-face classes by looking at the condition of their learners, and how their learners felt about their experiences in in-person learning. With the positive and negative implications of limited in-person learning could pose, educators could vary their approaches and teaching methodologies.

DECLARATIONS

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