

The Teaching Performance of the Teachers in Online Classes: A Sentiment Analysis of the Students in a State University in the Philippines

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ABSTRACT

Understanding the factors that influence students' perceptions may also assist administrators in making informed decisions about course and organizational design, as well as guiding professional development workshops for instructors. The goal of this sentiment analysis was to describe students' opinions about teachers' teaching performance in online classes. It sought to ascertain the most frequently occurring words in relation to their sentiments, as well as the emerging clusters derived from their sentiments. This study used a descriptive qualitative method employing sentiment analysis of Orange text mining software. Sentiment analysis extracts information from positive and negative words in text, from the context of those words, and from the linguistic structure of the text. The 237 college students were the participants of this study. The findings show that the emerging clusters derived from the sentiments of the students were the teachers facilitate learning and motivate students to learn. Teachers act as facilitator and motivator of students to learn in online classes. The teaching performance of the teachers can be manifested in how they facilitate the teaching-learning process and how they give feedbacks and motivations to students. Consequently, the teaching performance of the teachers in online classes is one of the indicators of the students' sentiments. This implied that, once the teacher performed very well in the class, students become satisfied and perform better in the class.

KEYWORDS

teaching performance; online classes; sentiment analysis

INTRODUCTION

The COVID-19 pandemic restrictions, which require teachers across the world to teach online from home, have imposed the integration of technology into teaching. Not only is the context different in the virtual classroom, but so are the qualities and characteristics of the teaching and learning experiences (Cho & Shen, 2013; Rice, 2006). The skills required for virtual instruction differ from those required for face-to-face instruction. These abilities include managing the online classroom, creating instruction for the online platform, motivating and engaging online students, instructional design in the online environment (Jackson & Jones, 2019; Kennedy & Archambault, 2012), and fostering a social and learner presence in the online setting (Jackson & Jones, 2019; Kennedy & Archambault, 2012). (Anderson, 2017; Garrison & Akyol, 2013).

We began to see schools, teachers, and students adopting e-learning technologies that allow teachers to deliver interactive instruction, seamlessly share resources, and facilitate student collaboration and interaction (Elaish et al., 2019; Garcia et al., 2018). It need

intensive mobilization of resource and capacity building be undertaken so as to achieve the envisioned goals in education, with no child left behind (Nyathi, V. S and Mathwasa, J, 2022).

Although the efficacy of online learning has long been recognized by the education community (Barrot, 2020, 2021; Cavanaugh et al., 2009; Kebritchi et al., 2017; Tallent-Runnels et al., 2006; Wallace, 2003), evidence of implementation challenges continues to accumulate (e.g., Boelens et al., 2017; Rasheed et al., 2020). This has prompted private and public higher education institutions (HEIs) in the Philippines to adopt flexible learning modalities in accordance with the Commission on Higher Education [CHED] (2020) guidelines beginning with the academic year 2020-2021. The implementing guideline is expected to be continued in the 2021 school year and beyond (CHED, 2020).

In the research study conducted by Joaquin et al (2020), they observed that despite the innovations made by Philippine HEIs in terms of alternative learning modes and technologies for delivering education, there are still gaps and challenges in their responses. Undoubtedly, online learning is a good initiative for carrying on teaching and educational programs during this pandemic (Kim, 2020). Nevertheless, at the same time, students and teachers have to face some problems in adjusting online classes (Kim, 2020). As the online learning method is very new in our education system and we are not acquainted with the process, both students and teachers have to face difficulties during online classes (Gopal et al., 2021).

To date in the Philippines, many studies have investigated this area with a focus on problems faced in online learning amid COVID-19 pandemic (Rosales and Pagsuyoin, 2021), students' online learning challenges (Barrot et al, 2021), challenges in online learning (Cabual and Cabual, 2022); difficulties in remote learning (Cahapay, 2020), and sentiment analysis of students' learning experiences (Santiago et al, 2022). With this, no conducted study related to the opinions of the students on the teachers' teaching performance in online classes during the pandemic.

Hence, Santiago et al. (2022) emphasized that conducting studies on sentiment analysis of experiences of online learners can play a crucial role in enhancing the educational systems' policies, teaching pedagogies, modalities, and services offered by the learning institution. He also cited the paper of Kechaou, Ammar & Alimi (2011) which assert its fitness to improve the quality of the e-learning system and to identify new opportunities. More so, as stated by Wang and Zhang (2020) the association and implication of sentiment analysis can improve the accuracy of teaching content and can optimize knowledge coherence. Hence, this study was conducted to determine the students' sentiments on the teachers' teaching performance in online classes. Understanding the factors that influence students' perceptions may also assist administrators in making informed decisions about course and organizational design, as well as guiding professional development workshops for instructors.

RESEARCH METHODS

This study used a descriptive qualitative method employing sentiment analysis of Orange text mining software. Sentiment analysis extracts information from positive and negative words in text, from the context of those words, and from the linguistic structure of the text. This brief review examines in particular the contributions that linguistic knowledge can make to the task of automatically determining sentiment (Taboada, 2016). The 237 participants of this research were composed of Bachelor of Secondary Education major in English, Mathematics, Sciences, Social Studies and Physical Education students, and Bachelor of Elementary Education students. In determining the participants, a purposive

sampling technique was used. Purposive sampling is intentional selection of informants based on their ability to elucidate a specific theme, concept, or phenomenon (Robinson, 2014). The students' sentiments were taken from the second semester of academic year 2021-2022 Teaching Efficiency Rating Evaluation for faculty members of the College of the Education, Mindanao State University-Maguindanao.

RESULTS AND DISCUSSION

Most Recurring Words with Regard to the Sentiments of the Students

Presented in Table 1 shows the 10 most occurring words, their frequency, and sample comments from the student-participants. The feedback may contain grammatical errors to show the authenticity of the student-participants' sentiments.

Table 1. Most Recurring Words of Students' Sentiments on the Teachers' Teaching Performance in Online Classes

Rank	Frequency	Words	Sample Comment
1	71	Thank	Thank you very much, I have learned a lot and I really enjoy the discussion and sharing of ideas in the class. (R-192)
2	57	Us	With his vast experiences and expertise on the subject, he has given us wide array of theories and applications which made us understood the subject clearly. (R-235)
3	48	Professor	Our professor is articulate and we learned a lot from him, he always motivated us to interact during his class and support our ideas by inputting his own knowledge and skills. (R-194)
4	46	Learned	I learned a lot from her and she gives me a depth understanding of the subject matter and encourage to continue to learn and educate myself. (R-217)
5	43	Teacher	The teacher always considers the opinions and accept the ideas of his students. He encourages them to participate in the class in a way that the students become motivated by his open-mindedness. The lessons are well-presented and he was able to connect them in real-world situations. Indeed, I have learned a lot from this teacher. (R-208)
6	42	Good	Our instructor is very good in delivering the lessons and I hope that she will continue that kind of teaching in her future students for the reason that students will likely to learn more if her teaching methods and strategies will be maintained or moreover be improved specially in dealing in our daily tasks and life in our career developments. (R-22)
7	41	lot	This teacher is so amazing and inspiring. I have learned a lot of techniques in presenting the lessons and even giving an exam.... (R-33)

		<p>The best professor we have. He gives so much inputs whenever he discusses the topic. He have a so much knowledge on the subject. And discusses the topics clearly. Keep it up, Sir. (R-54)</p> <p>I've learned a lot and with clear understanding of the subject being taught. (R-13)</p> <p>I'm gladly that he is my instructor. He explains everything about the topic and elaborate it very well. (R-47)</p> <p>She is very knowledgeable in terms of this subject and provided inputs clearly and thoroughly. (R-81)</p> <p>Our professor is articulate and used methods of learning wherein students could focus during online class, he ensures that everyone in the class participated and interact. He called the attention of the students to provide answers with corresponding explanations for him to know that the students is learning or not. He is a good teacher. (R-120)</p>
Motivate students	The teacher motivates the students to learn	<p>I learned a lot in this subject. Thanks to our professor. I like how dedicated she is in teaching us and making sure that we can apply our learnings in our workplace. (R-19)</p> <p>She is eloquent and motivates her students to participate in the class. She is generous in sharing her knowledge. (R-27)</p> <p>He teaches well in class. Encourages us to participate in his class. (R-104)</p> <p>Sir's class has always been engaging. He highly encourages class participation and interaction in matters relevant to the topic at hand. (R-98)</p>

In the discussion of teachers' teaching performance, the key function common to all these is the effort they must make to be innovative in their teaching methodologies without imitating what has been done previously in the classroom. Being an expert in their subject is no longer enough. Teachers have to know how to transfer their knowledge and experience in different ways in the classroom and in the online format. Thus, for e-learning training, teachers should take advantage of existing tools to make courses more dynamic, by encouraging the use of different resources and activities: reading, audiovisuals, gamification or other practical exercises that help to maintain interest and encourage self-learning during online classes.

Students are thankful that their teachers provide reading materials, inputs, clear explanations, and good teaching strategies that ensure students learning and understanding of the courses they have. Further, they claimed that the teachers' teaching performances are commendable. They are satisfied with their teachers' teaching performance in online classes.

In online classes, the teachers facilitate students' learning. This implied that they performed their function as facilitators and organizers providing resources and support to learners during online classes. They encourage the students to take more control of their

learning process. The findings supports the research studies that indicate that instructors act as a facilitator of learning and use various facilitation strategies in online courses to engage students (Martin, et al, 2020). In addition, the study of Zulfikar, et al. (2019) reveals that the amount of student participation in online learning discussion forums is initiated by how the teacher facilitates the discussion topic.

Students manifest in their comments that the teachers reinforce the emotional part of learning so that students remain interested and have a good attitude towards learning from the beginning to the end of the course. Students believed that to do this, teachers can provide students with clear course objectives and engaging class activities, and provide them with feedback that will serve as both learning and support, which will help them to feel guided during the learning process on their own. It is also important to respect their learning speed so that they can experience one of the main benefits of online training: flexibility. Recognizing the students' needs and self-determination and autonomy, and providing opportunities for choice and control in online classes is one of the teachers' roles in the teaching-learning process. Also, understanding that students may be intrinsically and extrinsically motivated to learn.

These findings supports the study of De Barba et al. (2016) states that teacher motivates students to learn, and motivation at the moment of learning acts as a bridge between their intrinsic motivation and participation in distance education. They also found that state-level motivation at the moment of learning acts as a mediator between intrinsic motivation and participation. They further discussed that an online learning environment should cater for motivation and participation as situational interest is contextual and depends on how much activities and content are able to keep students' attention. Similarly, Chen and Jang (2010) suggest students need support tailored for their needs in order to decrease their anxiety and uncertainty as a suggestion to deal with attrition.

Sentiment Analysis of the Students

Figure 2 presents the polarity of sentiment scores of students' sentiment on the teachers' teaching performance in online classes.

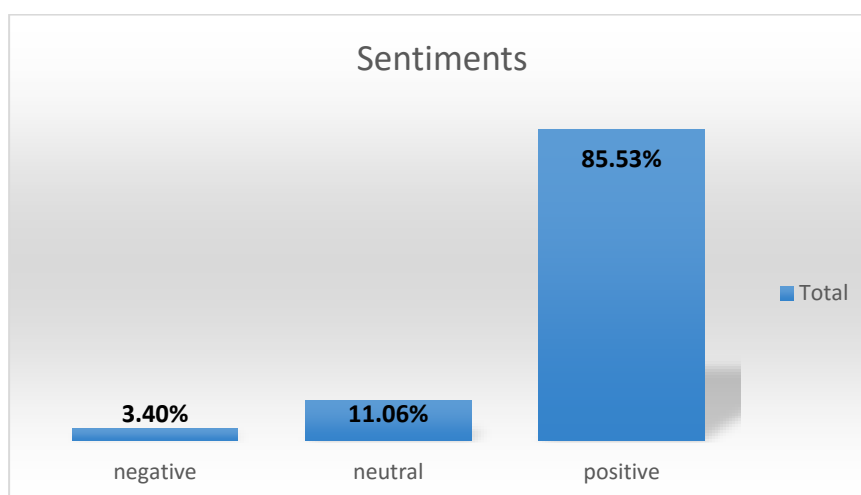


Figure 2. Sentiments of the Students

As a result of the analysis, Figure 2 shows that students' sentiments on the teachers' teaching performance in online classes are dominated by positive teaching performance (85.53%), compared to negative teaching performance (3.40%), and with eleven (11.06) neutral teaching performance.

The results indicate that majority of the students' comments towards teachers' teaching performance in online classes are commendable. The students are satisfied with the teachers' teaching performance in online classes in such a way that with the teachers' characteristics such as being knowledgeable in the topic presented, passionate in teaching, good teaching methods and styles, accommodating and approachable, and clear and understandable discussion were presented and manifested during online classes.

These claims supports the following studies; interaction in a fully online learning setting has been regarded as a critical factor that determines to the extent to which students are satisfied with their online education (Wu et al., 2010; Cidral et al., 2018). According to Kuo et al. (2014), a high level of interaction with the instructor, other learners, or content leads to high satisfaction and thus reveals high engagement in online learning (Veletsianos, 2010). Similarly, lack of interaction often leads to poor student engagement and lower student satisfaction (Martin et al., 2018; Rahmatpour et al., 2021). It can be concluded that interaction in online learning often translates to students' engagement in their academic activities before positively affecting students' satisfaction (Kim and Kim, 2021). Thus teachers' personal and professional characteristics reveal high teaching performance in online classes.

In addition, the negative feedback of students on teachers' teaching performance can be associated with teachers' preparation in delivering the lessons. Adequate data connection for students in remote areas to access learning materials using their handheld gadgets is also a concern (Asio et al., 2021). Another attribute of negative learning experiences of students can be traced to the teachers and their pedagogy which resulted in difficulty in understanding the lesson, and inadequacy of learning resources available suited for the learners' needs. In face-to-face classes, teachers are easily understood and their methods of teaching do not play a big factor for students (at least for students taking technical courses) to learn. The learning modules and the learning resources provided may not suffice for students to understand the lessons.

Furthermore, teachers' personal characteristics also affect the teacher's teaching performance. Valentine (2002) opined that the quality of instruction in distance learning is one of the challenges for it depends on the attitude of the administration and the instructor, while Bayyat, Muaili & Aldabbas (2021) suggested instructional materials in online learning had to be engaging, interactive and should complement to face-to-face classes. The students' needs should be understood which requires learning materials to be prepared, designed, and go through quality checking and monitoring to make effective distance learning.

Finally, some of the students viewed teachers' teaching performance in online classes as neither positive nor negative. Very few of the students viewed teachers' teaching performance in online classes as neither positive nor negative. This indicates that teachers' performance does not affect the students' learning or performance in online classes. The result of the study is supported by the study of Santiago et al (2022) suggests that learning in an uncertain environment does not affect their academic, personal, psychological, or mental health. Student are confident and determined to achieve their goal, and they are optimistic that the difficulties they have been experiencing will pass. These attitudes and ways of thinking can be seen in how they handled and acted on time management, academic coursework, financial and health-related issues, and the need to cope with the situation. This display of fortitude and behavioral neutrality in their feelings about their online learning experiences indicated a strong self-motivation and concentration to dismiss the annoyances or distractions, and pressures in their environment.

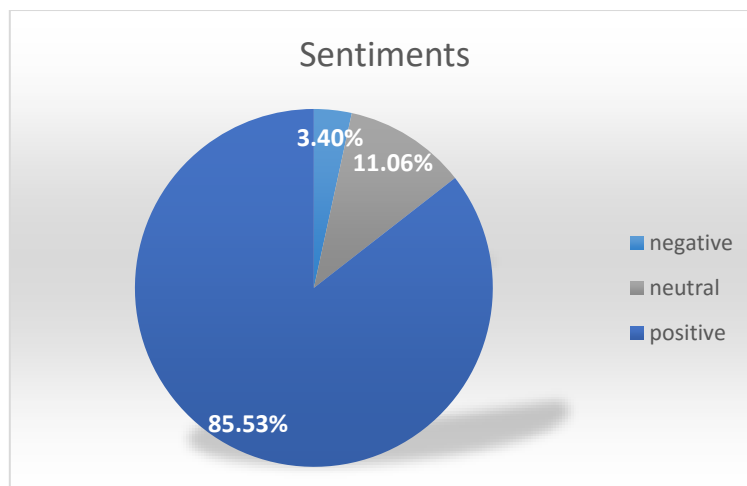


Figure 3. Visualization of the Students' Sentiments

Figure 3 shows visualization of polarity of sentiment scores of students' sentiment on the teachers' teaching performance in online classes based on the sentiment analysis.

CONCLUSION

With the consideration of the results of the study, some implications for educational practices are deemed necessary. The emerging clusters derived from the sentiments of the students were the teachers facilitate learning and motivate students to learn in online classes. Teachers act as facilitator and motivator of students to learn in online classes. The teaching performance of the teachers can be manifested in how they facilitate the teaching-learning process and how they give feedbacks and motivations to students. Consequently, the teaching performance of the teachers in online classes is one of the indicators of the students' sentiments. This implied that, once the teacher performed very well in the class, students become satisfied and perform better in the class.

The study is limited to the determination of students' sentiments on the teachers' teaching performance in online classes. Hence, future researchers are encouraged to conduct further study on the same subject but a broader scope. It may include another type of corpora. With this, other dimensions of teachers' teaching performance in online classes maybe exhibited among the students' sentiments.

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