

Relationships between Faculty Concerns Teaching Methods in Online Education and Technology Use in Teaching

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Abstract: This study underscores the critical need to address faculty concerns and provide adequate support to enhance the effectiveness of online teaching. Conducted with 300 teachers from Jiangsu Vocational College and Information in China, the research explored correlations between faculty concerns, teaching methods, and technology use. The following are the findings: Faculty concerns and Technology Use: The study identified a significant correlation between faculty teaching methods, their use of technology, and their stages of concern about online teaching. Understanding the concerns helps identify barriers to effective online teaching. This relationship underscores the importance of supporting faculty in their use of technology and teaching strategies to improve online education Student Behavior Issues: Faculty expressed concerns about student engagement, participation, and adherence to rules in online learning environment highlighting the need for strategies to address these issues. Technology Utilization. The most frequently used technology used by teachers, was the web for sharing digital files, suggesting that teachers are creating a conducive online environment for their students. Teachers who ensure a positive online learning environment through effective use of technology and adaptable teaching methods significantly enhance the quality of online education. Addressing faculty concerns and fostering supportive teaching practices are essential to maximize the potential online learning platform

Keywords: Faculty Concerns; Teaching Methods and Technology Used in Online Modality.

1. Introduction

China is known to have an advanced technology and innovations. The use of technology in teaching and learning is very important especially in the 21st century education. Technology provides students as well as teachers with easy-to-access information, accelerated learning, and opportunities to practice what they learn. Institutions of higher education in China have been steadily increasing the number of online courses and programs offered to students. Online learning at institutions is seen by some as a way to provide a genuine quality education to a wider range of students who, for a variety of reasons, cannot or choose not to attend a traditional brick and mortar college or university. These students have an ever-increasing opportunity to access online education at public, private, institutions of higher education. Many face-to-face courses at these traditional institutions are utilizing online learning tools such as learning management systems to house course documents, lectures that have been recorded previously, provide areas for students to submit assignments, and have them evaluated.

Researching the relationships between faculty concerns and the use of online teaching methods, along with technology is essential for several reasons: First is faculty readiness, understanding faculty readiness for online teaching is crucial. These includes their attitudes towards online teaching and their confidence in their ability to teach online. By assessing faculty readiness, institutions can provide the necessary support and training to ensure educators are well-prepared for online teaching. Second is online teaching competencies, faculty need specific skills to teach online effectively. These competencies include course design,

communication, technical skills, and time management. Research helps identify gaps in these areas and provides insights for improvement, ensuring that faculty can deliver high-quality online education communication, technical skills, and time management. Research helps identify gaps in these areas and provides insights for improvement, ensuring that faculty can deliver high-quality online education. Third reason is challenges and differences. Online teaching presents unique challenges compared to face-to-face teaching (Online Learning in 2023). Faculty must focus on virtual classroom management, engaging students through virtual communication, and effectively using instructional time and space. Research helps address these challenges by providing strategies and best practices for online teaching. Lastly, Interpersonal communication, Effective communication with students is crucial in online courses. Research can explore how faculty can enhance their communication skills to foster better student engagement and learning outcomes in online environment. Budhrani, Martin F. K., & Wang, C. (2019) As such for the researcher, studying faculty concerns related to online teaching informs strategies for improving faculty readiness and enhancing the online learning experience.

As more conventional Higher Education Institutions (HEIs) in China begin offering courses and even entire programs online, the demand for more faculty to teach online courses will increase as well. Moreover, researches in line with this will be expected of the years to come.

China's culture has generally considered that education provides the prime opportunity to obtain a better position in life. Therefore, families are ready for additional spending on education compared to other necessities. The social environment also encompasses a large and young market,

eager for technological novelties that enable the rapid commercialization of innovations, especially if they provide an edge in terms of educational opportunities.

There is also strong support from the government as an investor, a consumer of digital technologies and a provider of access to key data for companies with favorable conditions. In addition, the administration typically conducts many different experiments on new policies and developments at local level that, if satisfactory, are extended across the country. Together with distributed responsibility, this creates an environment where local and regional governments compete to provide the best results possible within the planned top-down policies. This same scheme has occurred during and after the Covid-19 pandemic. Within national guidelines, local authorities were provided room for their own decisions on providing the best technological support for education.

2. Statement of the Problem

The purpose of the study is to determine the faculty's teaching methods using online and their use of technology in teaching correlate with the status of concern about teaching online courses. The data can be used to identify potential barriers by the faculty for teaching in an online format.

Specifically, it sought answers to the following questions:

- 1.. What is the assessment on the status of faculty concern about online teaching modalities in terms of;
 - 1.1 Teaching concern about students,
 - 1.2 Teaching concern about self?
2. To what extent do the respondent teacher utilize technology in an online modality
3. What is the assessment of the respondent teacher on the teaching methods using online modality
4. Does the use of technology and the respondent's teaching

method influence the status of faculty concerns on online modality

5.. Based from the results of the study, what strategies can be developed by the researcher to help the teachers maximize the use of technology in online modality?

3. Research Design

The study utilized descriptive – predictive correlational research design to find the correlation between the status of faculty concern and teaching methods in the use of technology in online modality.

A quantitative approach was employed in collecting and analyzing numerical data. It can be used to find patterns and averages, make predictions, test causal relationships, and generalize results to wider populations (Bhandari, 2021). On the other hand, Descriptive Research Design describes and interprets “what is.” It reveals the conditions or relationships that exist or do not exist, effects that are being felt, or trends that are developing

Thus, this study described the stages of faculty concern and its relation to the technology use in teaching and the teaching methods of the teachers.

4. RESULTS AND DISCUSSIONS

4.1. Status of Faculty Concern on Teaching Online

Tables 1 and 2 presents the assessment of the teacher respondents of stages of faculty concern about teaching online in terms of teaching concern about students and teaching concern about self.

4.1.1. In Terms of Teaching Concern About Student

Table 1. Status of Faculty Concern on Teaching Online in terms of the Concern about Students

Concern about Student	Mean	SD	Verbal Interpretation	Rank
1. I am concerned about student's attitude toward the innovation.	3.49	.50	Concerned	1
2. I am concerned about how the innovation affects students.	3.06	.85	Concerned	5
3. I would like to revise the innovation's approach following the curriculum.	2.97	.83	Concerned	6
4. I would like to modify our use of the innovation based on the experiences of our students.	2.92	.81	Concerned	10
5. I would like to excite my students about their part in this approach.	3.08	.77	Concerned	3.5
6. I am concerned about time spent working with nonacademic problems related to the innovation.	2.95	.87	Concerned	7
7. I would like to coordinate my efforts with students to maximize the innovation's effects.	2.94	.80	Concerned	8.5
8. I would like to use feedback from students to change the program.	2.94	.80	Concerned	8.5
9. I would like to determine how to supplement, enhance, or replace the innovation for students' achievement.	3.08	.77	Concerned	3.5
10. I would like to know how the innovation is better than what we have now for students.	3.48	.50	Concerned	2
Average Weighted Mean	3.09	.27	Concerned	

Legend: 3.51-4.0 Often/ Highly concerned; 2.51-3.50 Sometimes/Concerned; 1.51-2.50/ Never/ Not Concerned 1.0 -1.50

Table 1 shows the assessment of the teacher respondents of stages of faculty concern about teaching online in terms of concern about student.

Table 1 shows the responses of the teacher respondents of

stages of faculty concern about teaching online in terms of the concern about student. It is notable that majority of the respondents agree to the statement which states “I am concerned about student's attitude toward the innovation”

which ranked as the highest rating with a mean of 3.49 and standard deviation of 0.50 which interpreted as concerned. Strategies to address this concern include fostering a positive online classroom culture, setting clear expectations and providing timely feedback to students. Similarly, teacher respondents are also concerned to the rest of the statements presented. To discuss, item 10 ranked second (2nd) which states that teacher respondents would like to know how the innovation is better than what we have now for students with a weighted mean of 3.48 and standard deviation of 0.50 which interpreted as concerned. Furthermore, items 5 and 8 ranked 3.5 which states that teacher students would like to excite students about their part in this approach and would like to determine how to supplement, enhance, or replace the innovation for students' achievement which garnered a mean of 3.08 and standard deviation of 0.77 and interpreted as concerned. Item 2 ranked fifth (5th) which states that teacher respondents are concerned about how the innovation affects students which has a mean of 3.06 with a standard deviation of 0.85 and interpreted as concerned. Item 3 ranked sixth (6th) which states that teacher respondents would like to revise the innovation's approach which garnered a mean of 2.97 and a standard deviation of 0.83 which interpreted as concerned. To compare, stamen 6 ranked seventh (7th) which tells that teacher respondents are concerned about time spent working with nonacademic problems related to the innovation and has a mean of 2.95 with a standard deviation of 0.97 and interpreted as concerned as well. Both statements 7 and 8 ranked 8.5 which affirms that respondents would like to coordinate my efforts with students to maximize the innovation's effects and would like to use feedback from students to change the program which has the same mean of 2.94 and standard deviation of 0.80 and both interpreted as concerned. However, though it was also interpreted as concerned like the other statements, item 4 ranked last which asserts that respondents would like to modify their use of the innovation based on the experiences of their students which has a mean of 2.92 and a standard deviation of 0.81. All in all, a weighted mean of 3.09 and a standard deviation of 0.27 reveals that teacher respondents are involved regards with the stages of faculty concern about teaching online and is concerned in terms of teaching concern about student.

Addressing students' attitudes towards online teaching involves several strategies such as: encourage active participation during online classes, use interactive tools like polls, breakout rooms, and discussion forums. foster a sense of community by allowing students to share experiences and insights. set clear expectations for online learning , provide detailed instructions, schedules and guidelines , be responsive to student queries and concerns, ensure quality course design , align assessments with learning objectives , create opportunities for virtual office hours or one on one interaction, connect individually to address their needs , Provide timely feedback for assignments and acknowledge students' efforts and progress thus, consistent effort and adaptability are essential since students' attitudes can evolve overtime. (Ferrer, Justine et al, 2022)

4.1.2. In Terms of Teaching Concern About Self

Table 2 shows the assessment of the teacher respondents of stages of faculty concern about teaching online in terms of concern about student.

As shown from the table, teacher respondents were highly involved and is very concerned to know what other faculty are doing in this area with the highest assessment of 3.56 and

a standard deviation of 0.50. Faculty are also be curious about what their colleagues are doing in online teaching so they compare their own practices to those others. Similarly, teacher respondents were also very concerned in statement 14 and 21 which ranked second (2nd) and third (3rd) respectively which states that they would like to know how their teaching or administration in supposed to change with the second highest mean of 3.53 and standard deviation of 3.53, on the other hand, teacher respondents would like to know how their role will change when they are using the innovation which garnered a mean of 3.51 and standard deviation of 0.50. However, items 18 and 20 both ranked 4.5 with states that respondents would like to have more information on time and energy commitments required by the innovation and currently, other priorities prevent me from focusing my attention on the innovation with a mean of 3.48 and standard deviation of 0.50 both and interpreted as concerned. On one hand, item 16 ranked sixth (6th) and interpreted as concerned which asserts that teacher respondents are concerned about evaluating their impact on students and accumulated a mean of 3.44 with a standard deviation of 0.50. On the other, item 17 which ranked seventh (7th) was also interpreted as concerned which states that they would like to know what the use of the innovation will require in the immediate future and garnered a mean of 3.16 and a standard deviation of 0.80. Similarly, item 5 which ranked eighth (8th) and also interpreted as concerned states that teacher respondents have a very limited knowledge of the innovation which has a mean of 3.09 and standard deviation of 0.83. Item 6 ranked nineth (9th) which states that teacher respondents would like to know the effect of the innovation on their professional status and accumulated a mean of 3.08 and standard deviation of 0.77, interpreted as concerned. Similarly, item 9 ranked tenth (10th) which also interpreted as concerned states that respondents would like to develop work relationships with both their faculty and outside faculty using this innovation and garnered a mean of 3.00 and standard deviation of 0.79. Both statements 3 and 12 ranked 11.5 and interpreted as concerned which respectively states that teacher respondents are concerned about not having enough time to organize myself each day and would like to know what resources are available if we decide to adopt the innovation which both measured with a mean of 2.97 and standard deviation of 0.83. Surprisingly, items 8 and 13 both ranked 13.5 and interpreted as concerned which also respectively states that teachers are concerned about revising their use of the innovation and would like to know who will make the decisions in the new system which both garnered a mean of 2.95 and standard deviation of 0.87. Moreover, item 4 ranked fifteenth (15th) which states that teacher respondents would like to help other faculty in their use of the innovation which has a mean of 2.94 and standard deviation of 0.80, interpreted as concerned. Item 1 ranked as sixteenth (16th) which asserts that respondents now know of some other approaches that might work better which garnered a weighted mean of 2.92 and standard deviation of .81, also interpreted as concerned. Hence, item 7 ranked seventeenth (17th) and interpreted as teacher respondents are concerned about conflict between their interest and their responsibilities which garnered a mean of 2.85 and standard deviation of 0.80. Statement 2 ranked eighteenth (18th) which states that respondents are more concerned about another innovation which has a weighted mean of 2.80 and standard deviation of 1.01 interpreted as concerned. Furthermore, item 11 ranked nineteenth (19th) which affirms that teacher respondents

would like to discuss the possibility of using the innovation which has a mean of 2.76 and standard deviation of 0.87 interpreted as concerned. Statement 15 ranked twentieth (20th) and interpreted as concerned which states that teachers would like to familiarize other department or persons with the progress of this new approach which garnered a mean of 2.75 and standard deviation of 0.99. Item 13 ranked twenty-first (21st) which states that teacher respondents are concerned about their inability to manage all that innovation requires

which garnered a mean of 2.59 and standard deviation of 1.13 interpreted as concerned. Lastly, item 22 ranked last which affirms that coordination of tasks and people is taking much of teacher respondents' time which has a mean of 2.36 and standard deviation of 1.12 interpreted as less concerned. Overall, a mean of 3.05 and standard deviation of 0.18 confirms that teacher respondents are involved regards with the stages of faculty concern about teaching online and is concerned in terms of teaching concern about their selves.

Table 2. Status of Faculty Concern about Teaching Online in terms of the Concern about Self

Concern about Self	Mean	SD	Verbal Int	Rank
1. I now know of some other approaches that might work better.	2.92	.81	Concerned	16
2. I am more concerned about another innovation.	2.80	1.01	Concerned	18
3. I am concerned about not having enough time to organize myself each day.	2.97	.83	Concerned	11.5
4. I would like to help other faculty in their use of the innovation	2.94	.80	Concerned	15
5. I have a very limited knowledge of the innovation.	3.09	.83	Concerned	8
6. I would like to know the effect of the innovation on my professional status.	3.08	.77	Concerned	9
7. I am concerned about conflict between my interest and my responsibilities.	2.85	.80	Concerned	17
8. I am concerned about revising my use of the innovation.	2.95	.87	Concerned	13.5
9. I would like to develop work relationships with both our faculty and outside faculty using this innovation.	3.00	.79	Concerned	10
10. I would like to know who will make the decisions in the new system.	2.95	.87	Concerned	13.5
11. I would like to discuss the possibility of using the innovation.	2.76	1.17	Concerned	19
12. I would like to know what resources are available if we decide to adopt the innovation.	2.97	.83	Concerned	11.5
13. I am concerned about my inability to manage all that innovation requires.	2.59	1.13	Concerned	21
14. I would like to know how my teaching or administration in supposed to change.	3.53	.50	Very Concerned	2
15. I would like to familiarize other department or persons with the progress of this new approach.	2.75	.99	Concerned	20
16. I am concerned about evaluating my impact on students.	3.44	.50	Concerned	6
17. I would like to know what the use of the innovation will require in the immediate future.	3.16	.80	Concerned	7
18. I would like to have more information on time and energy commitments required by the innovation.	3.48	.50	Concerned	4.5
19. I would like to know what other faculty are doing in this area.	3.56	.50	Very Concerned	1
20. Currently, other priorities prevent me from focusing my attention on the innovation.	3.48	.50	Concerned	4.5
21. I would like to know how my role will change when I am using the innovation.	3.51	.50	Very Concerned	3
22. Coordination of tasks and people is taking much of my time.	2.36	1.12	Less Concerned	22
Average Weighted Mean	3.05	.18	Concerned	

3.51-4.0 Often/ Very Concerned 2.51-3.5 Sometimes/ Concerned
1.51-2.50 Rarely/ Less Concerned 1-1.50 Never / Not Concerned

In the online modality, faculty members often express concern about their colleagues' teaching techniques and practices. This focus on peer observation and awareness suggests that they recognize the importance of effective

online teaching competencies. However, it's essential to note that perceptions of importance and actual ability may differ. For instance, faculty members might rate the importance of course design, communication, and technical competencies

higher than their perceived ability in these areas. Conversely, they might feel more confident about time management. *Martin, F., Budhrani, K., & Wang, C. (2019)*. Additionally, the transition to online teaching during the pandemic has required educators to quickly adapt to new pedagogical methods. Onyeaka, H., et al.

5. Conclusion

1. Faculty concern regarding student behavior

Some faculty members worry about student behavior in online learning environments. This concern may relate to issues like student engagement, participation and adherence to rules.

2. Faculty concern regarding self

Faculty who focusses on external accountability (e.g. reporting to managers, student evaluations) lean toward traditional teaching method. In contrast, those emphasizing internal accountability tend to use adaptive instructional practices prioritizing the quality of the learning process.

3. Faculty concerns about online teaching can influence their teaching practices. Understanding these concerns helps institutions provide targeted support and professional development for faculty transitioning to online teaching.

4. The usage of Web to share digital files related to course (sharing photos, audio files, digital documents) is the often-used technology by the teacher respondents using the online modality. However, other mentioned technology was just sometimes used by the teacher respondents which is vital in teaching.

5. The use of technology faculty and teaching methods using online modality have an influence on the status of faculty concerns using online modality

6. Recommendations

In view of the summary of findings and the conclusions, the researcher highly recommends the following:

1. Formulate a more suitable innovation approach based on the experiences of the students to create a more relevant and up to date teaching curriculum.

2. Create an appropriate and free training program or seminars for the teachers and instructors which highlights the maximization of usage of the online technology, with this, they can offer various teaching methods in online modality. Forthwith, the school must give them reward or incentives upon finishing them.

3. The school must create and plan a general teaching material for teachers to be fully guided with the use of technology and to generalize teaching capacities.

4. Teachers must ensure the interpersonal relationship of their students even in online setting; thus, they may provide various group activities which reinforce the skills and knowledge of the students in group setting.

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