Flexible Teaching in Rural Philippine Higher Education:
Attitude and Anxiety of Educators as Predictors of Readiness

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Abstract
This study investigates the level of readiness of educators towards shifting to flexible teaching in terms of attitude and levels of anxiety. The respondents were 179 educators from the seven campuses of Northern Iloilo State University, Philippines selected through proportional random sampling. This study employed the descriptive cross-sectional study using a survey research design. Data were gathered using a validated and reliability-tested researcher-made questionnaire. Results were analyzed using statistical tools such as Means, Standard Deviation, and T-test for Independent Samples, Analysis of Variance (ANOVA), and Pearson-r. The results of the study revealed that the educators' level of readiness towards flexible teaching in terms of attitude was neither positive nor negative as an entire group, however, as to academic rank, instructors have positive attitudes while college professors have negative attitudes toward flexible teaching. In terms of anxiety, educators have mild levels of anxiety. No significant differences were observed in terms of attitude when classified as to age, sex, civil status, length of teaching experience, and workload, however, a significant difference was observed in terms of anxiety when educators were classified as to sex. Furthermore, the educators' attitudes have a negative significant relationship to anxiety.

Keywords: Flexible Teaching, Higher Education, Attitude, Anxiety, Readiness

Introduction

The COVID-19 pandemic has created the largest disruption of education systems in history, affecting nearly 1.6 billion learners in more than 190 countries and all continents. Closures of schools and other learning spaces have impacted 94 percent of the world's student population, up to 99 percent in low and lower-middle income countries (UNESCO, 2020). Since the education of learners cannot be further delayed, schools have decided to reopen through online delivery (Brooks & Grahek, 2020). However, not all are equipped with the necessary tools for online education. This posed a problem for certain nations which already had an existing predicament in education even before the pandemic.

In the Philippines, aside from professional dilemmas such as coping with the demands of shifting to a new mode of instruction, educators must also deal with constant worrying for themselves and their family's safety which burden their mental well-being. A study by Talidong and Toquero (2020), revealed that Filipino educators experienced anxiety throughout the pandemic and have coping practices to deal with it. In Higher Educational Institutions, where learners came from different parts of the country and with different levels of economic status, remote learning delivery became an option, especially in rural areas where most of the learners lived in provinces and islands. In these circumstances, purely online learning is not applicable; hence, institutions turn to flexible teaching.

Flexible Teaching or flexible delivery is a mode of education more adaptable to time/geographical constraints than face-to-face classrooms. It often appeals to mature, rural/remote students or others with competing life demands (Ragusa, 2009). In much simpler terms, flexible teaching is a means of implementing flexible learning, which is a combination of digital and non-digital technology that ensures the continuity of inclusive and accessible education in the form of online, offline, or blended modes of teaching and learning processes (Ulanday, Centeno, Bayla, & Callanta, 2021). Flexible learning and teaching have gained significant attention for decades (Yuan, Wu, Xiong, Li, Xei & Liu, 2021). Flexible delivery is an approach to education that is student-centered, in respect to teaching and learning methods and resources, which caters to individual differences of learners and is free from the limitations of the time, content, access/entry requirements, instructional approaches/design and place and pace of study (Lundin, 2012; Huang, Liu & Zhan, 2020). It can be full-online, blended learning, flipped classroom, and distance learning (Abisado, Unico, Umoso, Manuel, & Barroso, 2020).

Flexible Teaching was applied in the Northern Iloilo State University and its campuses in the 5th district of the province of Iloilo, Western Visayas, Philippines where students, educators, and the school itself, are located mostly in coastal and agricultural areas in the province. As a precautionary measure against the spread of the virus, the institution transitioned to flexible teaching to continue its service of educating the learners in any way possible. The sudden shift in teaching style caused struggles and an array of challenges that college instructors must overcome to deliver the education that their students need. With these demands in the workplace and the personal dilemma the educators were experiencing, the question of how ready were the educators for this sudden pedagogical shift arises. Given the case of educators in Northern Iloilo State University, where flexible teaching was implemented and both educators and learners lacked resources to implement the necessary means of a smooth transition from the traditional method of learning, this study was conducted to assess the attitude, and level of anxiety of educators as predictors of their readiness during the shift to flexible teaching.

Methodology

This study used the cross-sectional descriptive method to determine the level of readiness of educators in Northern Iloilo State University during the shift towards flexible teaching. The respondents of the study, which was determined through proportionate sampling, were the 179 permanent teaching faculty from the seven campuses of Northern Iloilo State University.

All the respondents were actively teaching in higher education and have shifted to flexible teaching during the pandemic. They were classified according to age, sex, civil status, academic rank, length of teaching experience, and workload.

Categories	f	%
Entire Group	179	100
A. Age		
Young (≤40 years old)	80	44.69
Old (>40 years old)	99	55.31
B. Sex		
Male	68	37.99
Female	111	62.01
C. Civil Status		
Single	44	24.58
Married	135	75.42
D. Academic Rank		
Instructor	68	37.99
Assistant Professor	59	32.96
Associate Professor	50	27.93
College Professor	2	1.12
E. Teaching Experience		
Short (≤15 years)	105	58.66
Long (>15 years)	74	41.34
F. Workload		
5 and below	140	78.21
Higher than 5	39	21.79

Table 1: Distribution of the Respondents by Category

The research instrument used in the study was a survey questionnaire on educators' readiness towards flexible teaching made up of validated and reliability-tested, researcher-made questions that explored the respondents' profiles and assessed their attitudes towards flexible teaching. The last section adopted the General Anxiety Disorder 7-item (GAD-7) scale developed by Spitzer and colleagues (2006) which was used to measure general anxiety symptoms across various settings and populations (Johnson, Sverre & Ulvenes, Pål & Oktedalen, Tuva & Hoffart, Asle, 2019).

Results and Discussion

Attitude. Results of the mean analysis revealed that the level of readiness of educators towards flexible teaching in terms of attitude was "Neither Positive nor Negative" when the respondents were taken as an entire group. When grouped as to age, sex, civil status, length of teaching experience, and workload, results further revealed that the educators' level of readiness as to attitude is "Neither Positive nor Negative" (m= 3.11-3.38; SD= .72 -.86).

However, when grouped as to academic rank, Instructors' level of readiness towards flexible teaching in terms of attitude was "Positive" (m= 3.41; SD= .82), Assistant Professors and Associate Professors both were "Neither Positive nor Negative", whereas College Professors results were "Negative" (m= 2.4; SD= .42). This means that the knowledge of teachers on computers and related technology influences their attitude toward any form of learning involving these tools. The same applies to instructors, who are mostly younger and technology-savvy, and college professors mostly of retirement age.

This supports the study of Krishnakumar & Rajesh (2011) wherein results revealed that teachers who possess knowledge about computers and technology have a more favorable attitude towards e-learning. In the said study, a significant difference was observed in the attitudes of teachers who have blogs and teachers who do not. Another by Badia, Garcia, & Meneses (2018), concluded that teachers' relationship with technology plays a key role in them feeling relaxed or stressed, a common occurrence in an online teaching and learning environment.

Category	N	Mean	S.D.	Description
A. Entire Group	179	3.26	.79	Neither Positive nor Negative
B. Age				
Young (>40 years old)	80	3.34	.78	Neither Positive nor Negative
Old (≤40 years old)	99	3.21	.80	Neither Positive nor Negative
C. Sex				
Male	68	3.30	.84	Neither Positive nor Negative
Female	111	3.24	.76	Neither Positive nor Negative
D. Civil Status				
Single	44	3.38	.86	Neither Positive nor Negative
Married	134	3.23	.77	Neither Positive nor Negative
E. Academic Rank				
Instructor	68	3.41	.82	Positive
Asst. Professor	59	3.18	.75	Neither Positive nor Negative
Asso. Professor	50	3.21	.79	Neither Positive nor Negative
Professor	2	2.3	.42	Negative
F. Teaching Experience				
Short (≤15 yrs)	105	3.34	.79	Neither Positive nor Negative
Long (>15 yrs)	74	3.15	.79	Neither Positive nor Negative
G. Workload				
5 and below	140	3.30	.81	Neither Positive nor Negative
Higher than 5	39	3.11	.72	Neither Positive nor Negative

Scale: 4.21–5.00, Highly Positive; 3.41–4.20, Positive; 2.61–3.40, Neither Positive nor Negative; 1.81–2.60, Negative; 1.00–1.80, Highly Negative

Table 2: Level of Readiness of Educators towards Flexible Teaching in terms of Attitude

Anxiety. When taken as entire group, the level of anxiety of the educators towards flexible teaching was "Mild" (m= 1.82; SD= .71). Moreover, when categorized as to age, civil status, teaching experience, and workload, the level of readiness of the respondents in terms of anxiety was "Mild" (m= 1.77-2.00; SD= .66-.75). However, when categorized as to sex, males have "Normal" (m=1.62; SD= .75) anxiety level, while females have "Mild" (m= 1.94; SD= .66) anxiety level. When categorized as to academic rank, associate professors have a "Normal" (m= 1.73; SD= .68) level of readiness towards flexible teaching in terms of anxiety, while instructors, assistant professors, and college professors have "Mild" (m= 1.80-1.91; SD= .68-1.21) level of readiness towards flexible teaching in terms of anxiety. It must be noted, however, that although associate professors have a "Normal" level of anxiety, the mean score was along the borderline with only a .03 difference of having "Mild" anxiety. This implies that educators exhibited symptoms that are attributed to a mild level of anxiety due to the current situation brought about by the pandemic. Educators felt the said symptoms during the shift to flexible teaching as they were working at home and the number of positive coronavirus cases was adding up globally and locally.

Several research studies have been made concerning educators' anxiety levels during the pandemic with results ranging from mild to severe levels of anxiety among educators. A study with similar results was conducted in Mexico by Delgado-Gallegos, et. al. (2021) with 63.6% of the 220 respondents exhibiting mild levels of anxiety. A study done in different universities in Latin America by Urcos, et al (2020) showed that 92.3% of 207 educators exhibit a severe level of anxiety with only 6.8% showing a moderate level and 1% mild level of anxiety, and mostly reflected in the female sex. The large percentage of severe anxiety was believed to be a result of the social isolation measures that have been put in place to counter the spread of COVID-19.

Category	N	Mean	S.D.	Description
A. Entire Group	179	1.82	.71	Mild Anxiety
B. Age				
Young (>40 years old)	80	1.86	.75	Mild Anxiety
Old (≤40 years old)	99	1.78	.68	Mild Anxiety
C. Sex				
Male	68	1.62	.75	Normal Anxiety
Female	111	1.94	.66	Mild Anxiety
D. Civil Status				
Single	44	1.83	.72	Mild Anxiety
Married	134	1.82	.71	Mild Anxiety
E. Academic Rank				
Instructor	68	1.80	.76	Mild Anxiety
Asst. Professor	59	1.91	.68	Mild Anxiety
Asso. Professor	50	1.73	.68	Normal Anxiety
Professor	2	1.86	1.21	Mild Anxiety
F. Teaching Experience				
Short (≤15 years)	105	1.79	.69	Mild Anxiety
Long (>15 years)	74	1.86	.74	Mild Anxiety
G. Workload				
5 and below	140	1.77	.70	Mild Anxiety
Higher than 5	39	2.00	.72	Mild Anxiety

Scale: 4.00-3.22, Severe Anxiety; 2.52-3.21, Moderate Anxiety; 1.77-2.51, Mild Anxiety; 1.0-1.76, Normal

Table 3: Level of Readiness of Educators towards Flexible Teaching in terms of Anxiety

Differences in the level of readiness of educators towards flexible teaching in terms of attitude when classified as to certain categories. Employing T-test for independent samples, the following results were revealed as to the level of readiness of educators in terms of attitude when they are classified as to certain categories. The results revealed that when classified as to age, t(177)= 1.086, p= .279, sex, t(177)= .445, p= .657, civil status, t(177)= 1.115, p= .266, length of teaching experience, t(177)= 1.597, p= .112, and workload, t(177)= 1.358, p= .176, the level of readiness of educators towards flexible teaching in terms of attitude have no significant differences. These results failed to reject the null hypothesis which states that: "There is no significant difference in the level of readiness of educators towards flexible teaching in terms of attitude".

This implies that regardless of the educators' age, sex, civil status, length of teaching experience, and workload, their attitude on the readiness towards flexible teaching are basically the same. The said result disagreed with that of the study of Moralista & Oducado (2020) which revealed that there was a significant difference in the favorability of educators toward online education in terms of sex, age, college, educational attainment, years in teaching, academic rank, level taught, and employment status. According to the study, this may be due to the availability or unavailability of technological equipment and stable internet connection to every faculty, which is a necessity for online education.

Category	d.f.	Mean	S.D	t-ratio	p. value
A. Age					
Young	177	3.34	.78	1.086	.279
Old		3.21	.80		
B. Sex					
Male	177	3.30	.84	.445	.657
Female		3.24	.76		
C. Civil Status					
Single	176	3.38	.86	1.115	.266
Married		3.23	.77		
D. Teaching Experience					
Short (≤15 years)	177	3.34	.79	1.597	.112
Long (>15 years)		3.15	.79		
E. Workload					
5 and below	177	3.30	.81	1.358	.176
Higher than 5		3.11	.72		

Note: p < 0.05 significant at 0.05 alpha

Table 4: Differences in the level of readiness of educators towards flexible teaching in terms of attitude when classified as to certain categories

Differences in the level of readiness of educators towards flexible teaching in terms of anxiety when classified as to certain categories. Using t-test, the differences on the level of readiness of educators towards flexible teaching in terms of anxiety was determined. T-tests results revealed, that there is no significant differences in the level of readiness of educators towards flexible teaching in terms of anxiety when grouped as to age, t(177)= .721 , p= .472, civil status, t(177)= .092, p= .927, length of teaching experience, t(177)= -.678, p= .499, and workload, t(177)= -1.857, p= .065. However, a significant difference is present when they are grouped as to sex, t(177)= -2.953, p= .004.

The null hypothesis which states that: "There is no significant difference in the level of readiness of educators towards flexible teaching in terms of anxiety" was failed to be rejected

if the educators were grouped according to age, civil status, length of teaching experience, and workload but was rejected when educators were grouped as to sex. This implies that anxiety towards flexible teaching differs between males and females. The mean value of females was found to be higher than that of the males.

This result supports the findings in the study of Li, Miao, Zeng, Tarimo, Wu, & Wu (2020), wherein an overall anxiety prevalence was recorded through an online survey assessing anxiety in teachers during the epidemic of COVID-19. Eighty-eight thousand six hundred eleven (88, 611) responses from educators all over China were analyzed and results showed that the prevalence of anxiety was higher for women than men. Furthermore, another study by Ozamiz-Etxebarria, Dosil-Santamaria, Picaza-Gorrochategui, & Idoiaga-Mondragon, (2020) yielded the same results where the female sex manifests more numbers in all anxiety levels compared to the male sex.

	Category	d.f.	Mean	S.D	t-ratio	p. value
A.	Age					
	Young(>40 years old)	177	1.86	.75	.721	.472
	Old (≤40 years old)		1.78	.68		
B.	Sex					
	Male	177	1.62	.75	2.953	.004
	Female		1.94	.66		
C.	Civil Status					
	Single	177	1.83	.72	.092	.927
	Married		1.82	.71		
D.	Teaching Experience					
	Short (≤15 years)	177	1.79	.69	.678	.499
	Long (>15 years)		1.86	.73		
E.	Workload					
	5 and below	177	1.77	.70	1.857	.065
	Higher than 5		2.00	.72		

Note: $p < 0.05$ significant at 0.05 alpha

Table 5: Differences in the Level of Readiness of Educators towards Flexible Teaching in terms of Anxiety when classified according to certain categories

Differences in the level of readiness of educators towards flexible teaching in terms of attitude and anxiety when classified according to academic rank. ANOVA results revealed that there are no significant differences existing in the level of readiness of educators towards flexible teaching when classified as to academic rank in terms of attitude, $F(3, 175)= .538$, $p= .657$, and in terms of anxiety $F(3, 175)= .538$, $p= .657$. This implies that the level of readiness of educators towards flexible teaching in terms of attitude and anxiety of instructors, assistant professors, associate professors, and college professors are the same.

Category	Sum of squares	d.f.	Mean Square	F	p. value
A. Attitude					
Between Groups	.82	3	.274	.538	.657
Within Groups	89.09	175	.509		
Total	111.63	178			
B. Anxiety					
Between Groups	.82	3	.274	.538	.657
Within Groups	89.09	175	.509		
Total	89.91	178			

Note: p < 0.05 significant at 0.05 alpha

Table 6: Differences in the level of readiness of educators towards flexible teaching in terms of attitude and anxiety when classified according to academic rank

Relationship between attitude and anxiety. Pearson's-r computation revealed that the educators' attitude was negatively related to anxiety, (r= -.259, p=.000). This implies that the attitude of educators towards flexible teaching is highly dependent on their level of anxiety. Most likely, when educators feel anxious, their attitude towards instruction is affected. Moreover, this result is very much similar to that of Alqabbani, et. al. (2020), wherein a significant moderate negative correlation was obtained between anxiety and attitudes of university instructors who were the respondents of his study.

	Attitude	Anxiety
Attitude		
Pearson r	1	-.259
Sig.(2-tailed)		.000
N	179	179
Anxiety		
Pearson r	-.259	1
Sig.(2-tailed)	.000	
N	179	179

Note: Significant at 0.01 level (2-tailed)

Table 7: Correlation matrix between attitude and anxiety

Conclusion, Implications, and Recommendations

Based on the result of the study, among the dependent variables which determine the readiness of educators towards flexible teaching, their readiness in terms of anxiety should be given attention as findings showed a mild level of anxiety present among the educators. The study concludes that educators are still in the process of adjusting to the transition from traditional face-to-face instruction to flexible teaching, as findings of this study revealed that although their attitude remains in neutral level, a mild level of anxiety is present among the educators.

When flexible teaching was mandated by the Commission on Higher Education (CHED) to be the mode of instruction in HEIs in the Philippines, educators immediately complied and adapted themselves to the sudden transition from the traditional mode of instruction and coping with the new mode of instruction has been difficult for educators as it requires ample

time for preparation of modules and advance knowledge in ICT. Although technical support from the administration was given, the current situation caused mild anxiety to develop among educators. The presence of mild anxiety is due to factors related to work demands and personal concerns during the onset of the pandemic. Having one of the most important and diverse roles in society, educators were anxious about their personal and family safety, in addition to the demands of their profession including constant concern for the future of instruction and the learners.

The findings of this research further implied that the psychological well-being of educators affects their performance and should be given utmost importance as it negatively affects their attitude towards flexible teaching. The mild level of anxiety of educators should be addressed to prevent it from developing to a severe level, further affecting their work performance. A growing number of studies related to anxiety and stress in the workplace revealed that the efficiency and productivity of workers are highly associated with their psychological state. Educators are no exception. Having one of the most stressful and demanding professions, it is therefore of utmost importance that any feeling of stress and anxiety must be addressed, and educators must be given time to relieve themselves of these negative feelings, which are one of the causes of ineffectiveness.

Since recurring mild anxiety symptoms can have a long-term effect on their productivity and performance, both personally and professionally, a productivity enhancement program through stress and anxiety reduction is recommended to be proposed as part of the wellness program of the university. School administration should support educators with anxiety especially during these challenging times to ensure efficiency and prevent burnout.

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