Self-efficacy, motivation and academic performance of students during the flexible learning mode

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Abstract

Self-Efficacy is the belief that a person is capable of achieving a specific goal or performing a particular task while motivation represents the foundation for success in all activities that an individual engages in. This study aimed to determine the correlations between self-efficacy, motivation and academic performance of 862 students. Using spearman's rho, results revealed that self-efficacy and motivation go along together for all students with different specializations. Most of the students' grades are not directly affected by the motivation and self-efficacy. Responses of students for most of the challenges they encountered during the flexible learning mode are limited home setup for activities that require actual performances followed by the distraction they get from social media. Results of this study reveals that even during the pandemic, the students have positive outlook in life, but grades are not dependent on their self-efficacy and motivations.

Keywords: self-efficacy, motivation, academic performance, flexible learning mode, pandemic.

Autoeficácia, motivação e desempenho acadêmico de alunos durante à modalidade de aprendizagem flexível

Resumo

A autoeficácia é a crença de que uma pessoa é capaz de atingir um objetivo específico ou realizar uma tarefa específica, enquanto a motivação representa a base para o sucesso em todas as atividades em que um indivíduo se envolve. Este estudo teve como objetivo determinar as correlações entre autoeficácia, motivação e desempenho acadêmico de 862 alunos. Usando o rho de Spearman, os resultados revelaram que a autoeficácia e a motivação andam juntas para todos os alunos com diferentes especializações. A maioria das notas dos alunos não é diretamente afetada pela motivação e autoeficácia. As respostas dos alunos para a maioria dos desafios que encontraram durante o modo de aprendizagem flexível são limitadas à configuração doméstica para atividades que exigem desempenho real, seguidas pela distração que obtêm das mídias sociais. Os resultados deste estudo revelam que, mesmo durante a pandemia, os alunos têm uma visão positiva da vida, mas as notas não dependem de sua autoeficácia e motivações.

Palavras-chave: autoeficácia, motivação, desempenho acadêmico, modo flexível de aprendizagem, pandemia.

1. Introduction

When COVID-19 hit the country in 2020, the Philippine educational system shifted to different learning modalities. President Rodrigo Duterte mandated the Department of Education and the Commission on Higher Education of the no face-to-face instructions during the countries fight against the pandemic. Instead of the physical classes, schools, universities and colleges implemented distance or remote learning which include the delivery of lessons through various ways, including online, television, radio, and printed materials.

According to Blackburn (2020), the first struggle for students under a remote learning is related to motivation. In

remote learning, the teacher needs to be even more vigilant to identify this issue, watching students' responses during synchronous learning, and providing opportunities for written responses during asynchronous learning. In this pandemic time, students are forced to be self-reliant and independent, especially those in the tertiary level. Ferlazzo (2020) mentioned that one of the four keys essential to the development of student motivation is competence - feeling that one has the ability to be successful in doing it which can be related to self-efficacy.

Self-efficacy refers to one's beliefs about accomplishing a task and can influence choice of activities, effort, persistence, and achievement. Some recent research contests the long-held tenet that greater self-efficacy leads to greater performance. On the other hand, some researchers have found that higher levels of self-efficacy not coupled with higher goals lead to reduced performance (Helms, n.d.). The theory holds that as self-efficacy increases without the individual striving to achieve more difficult goals, the person becomes over-confident and devotes less resources (such as time and effort) to achieving the goal, leading to poor performance. As Maddux (2005) defined, perceived self-efficacy. It is about the extent at which a person believes that he is capable or incapable of discharging a course of action or behavior.

In relation to the present situation, Mamopamabi (2014) mentioned that self-efficacy effects seem to be the ability to manage stressors created in demanding situations by means of a more positive analysis of extant risks and available coping resources which results in the tendency to see demanding situations as challenges rather than threats. Students see the pandemic as a very challenging situation that may be too stressful for them to learn.

Reyes et al. (2017) revealed that a motivated student is one that is most prepared to face a task, focused on handling it, and persistent in addressing the difficulties faced, as well as it invests more time and effort in learning than the unmotivated student. Weda (2018) believes that motivation is one of the most vital factors contributing to the achievement of students' learning outcomes.

This study aims to explore the influence of self-efficacy and motivation to the academic performance of the Pampanga State Agricultural University students in the application of the flexible learning modalities during the pandemic.

2. Materials and Methods

2.1 Study type

This descriptive study yields quantitative data by examining a possible correlation between self-efficacy and academic performances and motivation and academic performances of PSAU students in different specialization and how the challenges affected the students.

A total of 862 students participated in the study, representing the six colleges of the university and the Graduate Studies. Self-efficacy questionnaire consisted of 10 questions while motivation questionnaire consisted of 9 items. The questions for challenges were 8 questions. These items have been validated by six experts comprised of doctors; two of them are psychologists and one English expert. The number of samples was considered from the 30% of student population per college which was randomly selected.

In order to collect information, the questionnaire was prepared in Google form and the data was analyzed using the Statistical Package of Social Sciences (SPSS) version 21.0 to determine the relationships of each variable. The correlations between self-efficacy and academic performance and between motivation and academic performance was analyzed based on Pearson-product correlation while mean was computed per college for the questions on challenges and hopes. The General Weighted Average (GWA) grades of the students during the 1st and 2nd semester of School Year 2020-2021 were included in the Google Form with an actual picture of the copy of grades. These GWA were related to the self-efficacy and motivation.

3. Results and Discussion

The results gathered from the study has a significant contribution to the knowledge relevant to education during the pandemic. Data analyzed will inform teachers, academicians, and administrators on how students cope up with their learnings on the use of flexible learning modalities.

Table 1 shows the relationships of self-efficacy, motivation and grades of the College of Education students. Results revealed that there is a strong significant positive correlation ($r = 0.721$, $p < 0.01$) between self-efficacy and motivation and a significant negative correlation ($r = -0.138$, $p < 0.05$) between self-efficacy and grades. This means that a student with high self-efficacy has also high motivation. However, the grades of the students

are not dependent on their beliefs, observation, persuasion and emotions which implies that even if a student has self-efficacy, grades can be influenced by other factors. Further, motivation ($r = -0.076$, $p < 0.01$) has also a non-significant negative correlation with grades which means motivation alone does not affect grades. A student can still perform in class even though not that motivated.

The findings of the study are aligned with the claim of Saif (2014) which states that self-efficacy has an influence or positive correlation with motivation. However, his findings on the relationship between motivation and performance (grades) are not the same as the result of this study.

Table 2 presents the challenges of the respondents from the College of Education during the flexible learning mode. The table specifically shows that *having limited home setup for activities that require actual performances* was the most identified challenge with frequencies of 85 (agree) or 41.26% and 55 (totally agree) or 26.70%, followed by *social media distracts me during the flexible learning mode* with frequencies of 72 (agree) or 34.95 % and 57 (totally agree) or 27.67%, *and sustaining the flexible learning mode is difficult due to my financial capabilities* with frequencies of 68 (agree) or 33.01% and 35 (totally agree) or 16.99%.

Table 1. Correlations between self-efficacy, motivation, and grades of the college of education students.

		Self-Efficacy	Motivation	Grades
Self-Efficacy	Correlation Coefficient	1.000	.721**	-.138*
	Sig. (2-tailed)	.	.000	.047
	N	206	206	206
Motivation	Correlation Coefficient	.721**	1.000	-.076
	Sig. (2-tailed)	.000	.	.277
	N	206	206	206
Grades	Correlation Coefficient	-.138*	-.076	1.000
	Sig. (2-tailed)	.047	.277	.
	N	206	206	206

Note: *Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed). Source: Authors, 2023.

Meanwhile, the results show that the challenge that was most totally disagreed by the respondents was *having difficulty getting and following instructions during flexible learning mode* with a frequency of 92 (disagree) or 44.66% and 45 (totally agree) or 21.84%. This implies that most of the respondents have already adjusted to carrying out online instructions.

Furthermore, the results tell that in all challenges, the majority of the respondents agreed and/or totally agreed on them.

The findings in this study somehow do not support the assertion of Graham & Misanchuk (2004); Jaques & Salmon (2007); and Salmon (2014) as cited by Gillett-Swan (2017) that online media can provide multiple benefits for both staff and students in supporting students' learning experiences, particularly for isolated students. In addition, the results in this table indicate that majority of the respondents encountered only three of the identified challenges.

A few results of this study somehow contradict the findings of Mahyoob (2020) who indicated technical issues faced in online classes, and Ali & Bin-Hady (2019) who found the use of social media as a beneficial tool in online learning.

Table 2. Challenges of college of education students during the flexible learning mode.

Challenges	Totally Disagree	%	Disagree	%	Agree	%	Totally Agree	%
1. I get late in complying with my tasks and activities due to poor internet and mobile signals.	55	26.70	69	33.50	53	25.73	29	14.07
2. Sustaining the flexible learning mode is difficult due to my financial capabilities.	28	13.59	75	36.41	68	33.01	35	16.99
3. I have difficulty in searching for help and resources online in doing my assignments.	40	19.42	89	43.20	59	28.64	18	8.74
4. I am distracted by the complexity of technology applied in my studies.	37	17.96	87	42.23	66	32.04	16	7.77
5. Social media distracts me during the flexible learning mode.	16	7.77	61	29.61	72	34.95	57	27.67
6. I have a limited home-setup for activities that require actual performances.	14	6.80	52	25.24	85	41.26	55	26.70
7. I feel isolated and outcast during online learning due to inability or insufficient knowledge on technology	72	34.95	78	37.86	40	19.42	16	7.77
8. I have difficulty getting and following instructions during flexible learning mode.	45	21.84	92	44.66	53	25.73	16	7.77

Source: Authors, 2023.

Table 3. Correlations between self-efficacy, motivation, and grades of college of arts and sciences students.

		Self-Efficacy	Motivation	Grades
Self-Efficacy	Correlation Coefficient	1.000	.585**	-.161
	Sig. (2-tailed)	.	.000	.068
	N	129	129	129
Motivation	Correlation Coefficient	.585**	1.000	.112
	Sig. (2-tailed)	.000	.	.205
	N	129	129	129
Grades	Correlation Coefficient	-.161	.112	1.000
	Sig. (2-tailed)	.068	.205	.
	N	129	129	129

Note: **. Correlation is significant at the 0.01 level (2-tailed). Source: Authors, 2023.

Table 3 showed the analysis revealing that there is a strong positive correlation between self-efficacy and motivation ($r = 0.585$, $p < 0.01$) which means that the higher the self-efficacy, the higher is the student's motivation. However, self-efficacy has a not-significant negative correlation ($r = -0.161$, $p < 0.01$) with grades which means that even if a student has self-efficacy grades may be affected by other (external) factors. On the other hand, motivation ($r = 0.112$, $p < 0.01$) is not significantly correlated with grades but revealed that

motivation positively affects the grades. A student motivated can have good grades though it is not the motivation alone that affects the good grades.

These findings support the study of (Martinelli; de Grecci Sassi, 2010) that self-efficacy and motivation goes together. The results of their study showed a positive and significant correlation between the self-efficacy to study and general self-efficacy and intrinsic motivation. The same is also supported by the study of (Titrek et al., 2018), because it was observed that there were significant positive correlations between academic motivation and academic self-efficacy.

Table 4. Challenges of college of arts and sciences students during the flexible learning mode.

Challenges	Totally Disagree	%	Disagree	%	Agree	%	Totally Agree	%
1. I get late in complying with my tasks and activities due to poor internet and mobile signals.	19	14.73	38	29.46	50	38.76	22	17.05
2. Sustaining the flexible learning mode is difficult due to my financial capabilities.	16	12.40	39	30.23	50	38.76	24	18.60
3. I have difficulty in searching for help and resources online in doing my assignments.	15	11.63	47	36.43	50	38.76	17	13.18
4. I am distracted by the complexity of technology applied in my studies.	18	13.95	45	34.88	50	38.76	16	12.40
5. Social media distracts me during the flexible learning mode.	8	6.20	37	28.68	48	37.21	36	27.91
6. I have a limited home-setup for activities that require actual performances.	9	6.98	32	24.81	53	41.09	35	27.13
7. I feel isolated and outcast during online learning due to inability or insufficient knowledge on technology	31	24.03	55	42.64	27	20.93	16	12.40
8. I have difficulty getting and following instructions during flexible learning mode.	22	17.05	59	45.74	34	26.36	14	11

Source: Authors, 2023.

Table 4 presents the challenges of the respondents from the College of Arts and Sciences during the flexible learning mode. The table specifically reflects that *having limited home setup for activities that require actual performances* was the most identified challenge with frequencies of 53 (agree) or 41.09% and 35 (totally agree) or 27.13%, followed by *getting distracted by social media during the flexible learning mode* with frequencies of 48 (agree) or 37.21% and 36 (totally agree) or 27.91%, and *difficulty in sustaining flexible learning mode due to financial capabilities* with frequencies of 50 (agree) or 38.76% and 24 (totally agree) or 18.60%.

On the other hand, the results indicate that majority of the respondents disagreed and/or totally disagreed with *feeling isolated and outcast during online learning due to inability or insufficient knowledge on technology* with frequencies of 31 (totally disagree) or 24.03% and 55 (disagree) or 42.64% and *having difficulty in getting and following instructions during flexible learning mode* with frequencies of 22 (totally disagree) or 17.05% and 59 (disagree) or 45.74%.

Table 5. Correlations of self-efficacy, motivation and academic performance of college of agriculture systems and technology students.

		Self-Efficacy	Motivation	Grades
Self-Efficacy	Correlation Coefficient	1.000	.423**	-.063
	Sig. (2-tailed)	.	.000	.569
	N	85	85	85
Motivation	Correlation Coefficient	.423**	1.000	.043
	Sig. (2-tailed)	.000	.	.698
	N	85	85	85
Grades	Correlation Coefficient	-.063	.043	1.000
	Sig. (2-tailed)	.569	.698	.
	N	85	85	85

Note: **. Correlation is significant at the 0.01 level (2-tailed).

The results of this study are similar to the findings of Barrot, Llenares & del Rosario (2021) that the greatest challenge of students in online learning is linked to their learning environment at home whereas their least challenge was technological literacy or competency.

Table 5 revealed that there is a strong positive correlation between self-efficacy and motivation (r = 0.432, $p < 0.01$) which means that the higher the self-efficacy, the higher is the student's motivation. However, self-efficacy has a not-significant negative correlation (r = -0.063, $p < 0.01$) with grades which means that even if a student has self-efficacy, grades may be affected by other (external) factors. Moreover, on the motivation (0.043, $p < 0.01$) it is not significantly correlated with grades but revealed that motivation positively affects the grades. A motivated student can have good grades though it is not the motivation alone that affects the good grades.

These findings support the study of (Schunk; Dibenedetto, 2020) that self-efficacy is a key internal motivational process that can be affected by personal and environmental variables, and which influences motivational outcomes of choices, effort, persistence, and achievement. It was also supported by the study of (Artino, 2012) that self-efficacy beliefs were established and high, then academic motivation was also high. If students experienced low academic motivation, then self-efficacy beliefs were low also. In addition, results from a meta-analysis of more than 100 empirical studies conducted over the last 20 years found that of nine commonly researched psychosocial constructs, academic self-efficacy was the strongest single predictor of students' academic achievement and performance.

Another study conducted by (Doménech-Betoret et al. 2014) in the university context revealed that students' academic self-efficacy had a significant and direct effect on achievement expectations, enjoyable learning expectations and expected dedication and, in turn, achievement expectation had a significant and direct effect on avoidance strategies (students' outcomes).

Moreover, a study conducted at the University of Texas ascertains that students not only have financial and academic obstacles when first entering college, they also have issues with doubts and fears of the capabilities needed to make it.

On the contrary, the study of (Tough, 2014) revealed that the only way to solve the problem of college completion is to get inside the mind of a student. To provide motivating interventions and moral support, educators give them the tools they needed to become successful professionals. Additionally, the study of (Lewis, et al., 2012) stated that the act of motivating could be defined as exciting the mind of the students to receive instruction.

Table 6. Challenges of college of agriculture systems and technology students during the flexible learning mode.

Challenges	Totally Disagree	%	Disagree	%	Agree	%	Totally Agree	%
1. I get late in complying with my tasks and activities due to poor internet and mobile signals.	17	10.56	51	31.68	56	34.78	37	22.98
2. Sustaining the flexible learning mode is difficult due to my financial capabilities.	12	7.45	39	24.22	71	44.10	39	24.22
3. I have difficulty in searching for help and resources online in doing my assignments.	15	9.32	45	27.95	72	44.72	29	18.01
4. I am distracted by the complexity of technology applied in my studies.	8	4.97	43	26.71	81	50.31	29	18.01
5. Social media distracts me during the flexible learning mode.	18	11.18	43	26.71	62	38.51	38	23.60
6. I have a limited home-setup for activities that require actual performances.	8	4.97	30	18.63	81	50.31	42	26.09
7. I feel isolated and outcast during online learning due to inability or insufficient knowledge on technology	16	9.94	48	29.81	73	45.34	24	14.91
8. I have difficulty getting and following instructions during flexible learning mode.	13	8.07	63	39.13	66	40.99	19	12

Source: Authors, 2023.

Table 6 presents the challenges of the respondents from the College of Agriculture Systems and Technology during the flexible learning mode. The table specifically reflects that *having limited home setup for activities that require actual performances* was the most identified challenge with frequencies of 81 (agree) or 50.31% and 29 (totally agree) or 18.01%, followed by *difficulty in sustaining flexible learning mode due to financial capabilities* with frequencies of 71 (agree) or 41.01% and 39 (totally agree) or 24.22%, and *being distracted by the complexity of technology applied in studies* which obtained frequencies of 81 (agree) or 50.31% and 29 (totally agree) or 18.01%.

On the other hand, the results indicate that the challenge that was most totally disagreed by the respondents was *getting distracted by social media during the flexible learning mode* with a frequency of 18 or 11.18%. Moreover, the results indicate that in all challenges, majority of the respondents agreed and/or totally agreed on them. The findings in this study somehow support one major claims of Adnan & Anwar (2020) that a vast majority of students in underdeveloped countries are unable to access the internet due to technical as well as monetary issues.

Table 7. Correlations of self-efficacy, motivation and academic performance of college of engineering and computer studies students.

		Self-Efficacy	Motivation	Grades
Self-Efficacy	Correlation Coefficient	1.000	.452**	.016
	Sig. (2-tailed)	.	.000	.839
	N	173	173	173
Motivation	Correlation Coefficient	.452**	1.000	.097
	Sig. (2-tailed)	.000	.	.206
	N	173	173	173
Grades	Correlation Coefficient	.016	.097	1.000
	Sig. (2-tailed)	.839	.206	.
	N	173	173	173

Note: **. Correlation is significant at the 0.01 level (2-tailed). Source: Authors, 2023.

Table 7 shows that there is a positive correlation between self-efficacy and motivation (r = 0.452, $p < 0.01$) which means that the higher self-efficacy, the higher is the student's motivation. On the other hand, self-efficacy (r = .016, $p < 0.01$) and self-motivation (r = .097, $p < 0.01$) are not significantly correlated with grades. Though self-efficacy and motivation are not the only factors that affect the grades of the students, hence the result depicts that self-efficacy and motivation positively affect the students in achieving good grades. The result of this study supports the findings of Wood & Locke (ND) indicating that self-efficacy was found to be significantly related to academic performance and to self-set academic grade goals of students.

Table 8 presents the challenges of the respondents from the College of Engineering and Computer Studies during the flexible learning mode. The results reflect that *getting distracted by social media during the flexible learning mode* was the most agreed and/or totally agreed challenge with frequencies of 62 (agree) or 35.84% and 58 (totally agree) or 33.53%, followed by *having limited home setup for activities that require actual performances* with frequencies of 68 (agree) or 39.31% and 48 (totally agree) or 27.75%, and *getting late in complying with tasks and activities due to poor internet and mobile signals* with frequencies of 68 (agree) or 39.31% and 36 (totally agree) or 20.81%.

All other challenges were also mostly agreed and/or totally agreed by the respondents except *feeling isolated and outcast during online learning due to inability or insufficient knowledge on technology* with frequencies of 31 (totally disagree) or 17.92% and 59 (disagree) or 34.10%. This result of the study partly contradicts the findings of Syahputri et al. (2020) whose respondents stated that they felt isolated because of social distancing and learning form a home model.

Table 9 shows the correlations between self-efficacy, motivation and grades of the College of Hospitality, Entrepreneurship and Food Sciences students which reveal that there is a weak positive relationship between self-efficacy and motivation (r = 0.295, $p < 0.01$). This implies that CHEFS students have self-efficacy which motivate them in their studies. It also reveals that because students are motivated, they also have good grades (r = 0.184, $p < 00.05$). However, the table also shows a weak negative correlation between self-efficacy and grades. Students' emotion does not affect their grades.

Kusurkar et al. (2012) supports this study that students' relative autonomous motivation is connected with the application of a good study strategy, which is associated with higher study effort also observed by Wilkinson, (2007), Wilkinson et al. (2007) and higher GPA.

Table 10 presents the challenges of the respondents from the College of Hospitality, Entrepreneurship and Food Sciences during the flexible learning mode. The results reflect that *having limited home setup for activities that require actual performances* was the most agreed and/or totally agreed challenge with frequencies of 73 (agree) or 45.63% and 49 (totally agree) or 30.63%, followed by *getting distracted by social media during the flexible learning mode* with frequencies of 71 (agree) or 44.38% and 40 (totally agree) or 25%, and *difficulty in sustaining flexible learning mode due to financial capabilities* with frequencies of 72 (agree) or 45% and 36 (totally agree) or 22.50%.

Table 8. Challenges of college of engineering and computer studies students during the flexible learning mode.

Challenges	Totally Disagree	%	Disagree	%	Agree	%	Totally Agree	%
1. I get late in complying with my tasks and activities due to poor internet and mobile signals.	24	13.87	45	26.01	68	39.31	36	20.81
2. Sustaining the flexible learning mode is difficult due to my financial capabilities.	20	11.56	53	30.64	70	40.46	30	17.34
3. I have difficulty in searching for help and resources online in doing my assignments.	17	9.83	59	34.10	70	40.46	27	15.61
4. I am distracted by the complexity of technology applied in my studies.	22	12.72	58	33.53	71	41.04	22	12.72
5. Social media distracts me during the flexible learning mode.	13	7.51	40	23.12	62	35.84	58	33.53
6. I have a limited home-setup for activities that require actual performances.	9	5.20	48	27.75	68	39.31	48	27.75
7. I feel isolated and outcast during online learning due to inability or insufficient knowledge on technology	31	17.92	59	34.10	53	30.64	30	17.34
8. I have difficulty getting and following instructions during flexible learning mode.	20	11.56	59	34.1	68	39.31	26	15

Source: Authors, 2023.

Table 9. Correlations of self-efficacy, motivation and academic performance of college of hospitality, entrepreneurship and food sciences.

		Self-Efficacy	Motivation	Grades
Self-Efficacy	Correlation Coefficient	1.000	.295**	-.106
	Sig. (2-tailed)	.	.000	.202
	N	147	147	147
Motivation	Correlation Coefficient	.295**	1.000	.184*
	Sig. (2-tailed)	.000	.	.026
	N	147	147	147
Grades	Correlation Coefficient	-.106	.184*	1.000
	Sig. (2-tailed)	.202	.026	.
	N	147	147	147

Note: *.Correlation is significant at the 0.05 level (2-tailed). **.Correlation is significant at the 0.01 level (2-tailed). Source: Authors, 2023.

Table 10. Challenges of college of hospitality, entrepreneurship and food sciences students during the flexible learning mode.

Challenges	Totally Disagree	%	Disagree	%	Agree	%	Totally Agree	%
1. I get late in complying with my tasks and activities due to poor internet and mobile signals.	31	19.38	34	21.25	54	33.75	41	25.63
2. Sustaining the flexible learning mode is difficult due to my financial capabilities.	22	13.75	30	18.75	72	45.00	36	22.50
3. I have difficulty in searching for help and resources online in doing my assignments.	32	20.00	35	21.88	72	45.00	21	13.13
4. I am distracted by the complexity of technology applied in my studies.	26	16.25	34	21.25	74	46.25	26	16.25
5. Social media distracts me during the flexible learning mode.	18	11.25	31	19.38	71	44.38	40	25.00
6. I have a limited home-setup for activities that require actual performances.	14	8.75	24	15.00	73	45.63	49	30.63
7. I feel isolated and outcast during online learning due to inability or insufficient knowledge on technology	33	20.63	39	24.38	62	38.75	26	16.25
8. I have difficulty getting and following instructions during flexible learning mode.	34	21.25	47	29.38	56	35	23	14

Source: Authors, 2023.

All other challenges were also mostly agreed and/or totally agreed by the respondents except *having difficulty in getting and following instructions during flexible learning mode* with frequencies of 34 (totally disagree) or 21.25% and 47 (disagree) or 29.38%.

The results clearly show that the respondents generally encountered most of the identified challenges during the flexible learning mode.

The most agreed challenge indicated in this table also verifies the findings of Barrot, Llenares & del Rosario (2021) that the greatest challenge of students in online learning is linked to their learning environment at home. However, it also contradicts the finding of Ali and Bin-Hady (2019) who found the use of social media as a beneficial tool in online learning.

Table 11 shows the correlations between self-efficacy, motivation, and academic performance of the College of Veterinary Medicine students. Based on the results gathered, there is a significant positive correlation between self-efficacy and motivation ($r = 0.383$, $p < 0.05$). This implies that CVM students have positive beliefs even during the pandemic. Table 11 also shows a not-significant negative correlation between self-efficacy and academic performance, and motivation and academic performance. These results imply that self-efficacy and motivation have no direct impact on the grades of the CVM students. External factors may be considered contributors to this result.

Table 11. Correlations of self-efficacy, motivation and academic performance of college of veterinary medicine students.

	Self-Efficacy	Motivation		Grades
Self-Efficacy	Correlation Coefficient	1.000	.383*	-.036
	Sig. (2-tailed)	.	.012	.823
	N	42	42	42
Motivation	Correlation Coefficient	.383*	1.000	-.244
	Sig. (2-tailed)	.012	.	.120
	N	42	42	42
Grades	Correlation Coefficient	-.036	-.244	1.000
	Sig. (2-tailed)	.823	.120	.
	N	42	42	42

Note: *. Correlation is significant at the 0.05 level (2-tailed). Source: Authors, 2023.

Table 12 presents the challenges of the respondents from the College of Veterinary Medicine during the flexible learning mode. The results reflect that the top three most agreed and/or totally agreed challenges of the respondents were *getting distracted by social media during the flexible learning mode* with frequencies of 12 (agree) or 25.87% and 24 (totally agree) or 57.14%, followed by *having limited home setup for activities that require actual performances* with frequencies of 18 (agree) or 42.86% and 14 (totally agree) or 33.33%, and *being distracted by the complexity of technology applied in studies* which obtained frequencies of 23 (agree) or 54.76% and 7 (totally agree) or 16.67%.

On the other hand, majority of the respondents disagreed and/or totally disagreed on a few challenges wherein *feeling isolated and outcast during online learning due to inability or insufficient knowledge on technology* with frequencies of 11 (totally disagree) or 26.19% and 17 (disagree) or 40.48% was the most disagreed.

The most agreed challenge in the table is similar to the findings of Siebers et al. (2021) that a vast majority of adolescents experienced more distraction when they spent more time using social media. However, it also somehow contradicts the findings of Syahputri et al. (2020) that students felt isolated because of social distancing and learning form a home model.

Table 13 presents the relationship between self-efficacy, motivation and academic performance of the Graduate Studies students. Self-efficacy and motivation have a strong positive correlation ($r = 0.734$, $p < 0.01$) which is indicative that self-efficacy and motivation go together even in older students and professional. The result also shows no negative correlation between the variables. This may be attributed to the maturity level of the GS students in their performance in the graduate school. As mentioned by Becirovic & Becirovic (2017), age has a significant influence on student's motivation.

Table 14 presents the challenges of the respondents from the Graduate Studies during the flexible learning mode. The results reflect that majority of the respondents agreed and/or totally agreed on all the identified challenges. Specifically, the topmost agreed and/or totally agreed was *getting distracted by social media during the flexible learning mode* with frequencies of 17 (agree) or 54.84% and 6 (totally agree) or 19.35%, followed by *having limited home setup for activities that require actual performances* with frequencies of 18 (agree) or 58.26% and 4 (totally agree) or 12.9%. In addition, *feeling isolated and outcast during online learning due to inability or insufficient knowledge on technology* with frequencies of 15 (agree) or 48.39% and 6 (totally agree) or 19.35%, and *having difficulty in getting and following instructions during flexible learning mode* with frequencies of 18 (agree) or 58.06% and 3 (totally agree) or 9.68% were also evident challenges reflected by the result.

The most agreed challenges indicated in the table also verify the findings of Syahputri et al. (2020) stating that learners felt isolated because of social distancing and learning form a home model, and that of Barrot, Llenares & del Rosario (2021) indicating that the greatest challenge of students in online learning is linked to their learning environment at home.

Table 12. Challenges of college of veterinary medicine students during the flexible learning mode.

Challenges	Totally Disagree	%	Disagree	%	Agree	%	Totally Agree	%
1. I get late in complying with my tasks and activities due to poor internet and mobile signals.	6	14.29	17	40.48	13	30.95	6	14.29
2. Sustaining the flexible learning mode is difficult due to my financial capabilities.	10	23.81	13	30.95	10	23.81	9	21.43
3. I have difficulty in searching for help and resources online in doing my assignments.	5	11.90	10	23.81	18	42.86	9	21.43
4. I am distracted by the complexity of technology applied in my studies.	7	16.67	5	11.90	23	54.76	7	16.67
5. Social media distracts me during the flexible learning mode.	1	2.38	5	11.90	12	28.57	24	57.14
6. I have a limited home-setup for activities that require actual performances.	3	7.14	7	16.67	18	42.86	14	33.33
7. I feel isolated and outcast during online learning due to inability or insufficient knowledge on technology	11	26.19	17	40.48	9	21.43	5	11.90
8. I have difficulty getting and following instructions during flexible learning mode.	5	11.90	15	35.71	19	45.24	3	7

Source: Authors, 2023.

Table 13. Correlations of self-efficacy, motivation and academic performance of college of veterinary medicine students.

		Self-Efficacy	Motivation	Grades
Self-Efficacy	Correlation Coefficient	1.000	.734**	.315
	Sig. (2-tailed)	.	.000	.189
	N	19	19	19
Motivation	Correlation Coefficient	.734**	1.000	.039
	Sig. (2-tailed)	.000	.	.874
	N	19	19	19
Grades	Correlation Coefficient	.315	.039	1.000
	Sig. (2-tailed)	.189	.874	.
	N	19	19	19

Note: **. Correlation is significant at the 0.01 level (2-tailed). Source: Authors, 2023.

Table 14. Challenges of graduate studies students during the flexible learning mode.

Challenges	Totally Disagree	%	Disagree	%	Agree	%	Totally Agree	%
1. I get late in complying with my tasks and activities due to poor internet and mobile signals.	5	16.13	6	19.35	13	41.94	7	22.58
2. Sustaining the flexible learning mode is difficult due to my financial capabilities.	6	19.35	7	22.58	12	38.71	6	19.35
3. I have difficulty in searching for help and resources online in doing my assignments.	6	19.35	5	16.13	14	45.16	6	19.35
4. I am distracted by the complexity of technology applied in my studies.	5	16.13	5	16.13	18	58.06	3	9.68
5. Social media distracts me during the flexible learning mode.	3	9.68	5	16.13	17	54.84	6	19.35
6. I have a limited home-setup for activities that require actual performances.	4	12.9	5	16.13	18	58.06	4	12.90
7. I feel isolated and outcast during online learning due to inability or insufficient knowledge on technology	7	22.58	3	9.68	15	48.39	6	19.35
8. I have difficulty getting and following instructions during flexible learning mode.	7	22.58	3	9.68	18	58.06	3	9.68

Source: Authors, 2023.

4. Conclusions and Recommendations

Self-efficacy relates to one's perceived ability to learn or accomplish things at specific levels. Theoretical and empirical evidence support the notion that self-efficacy is a key motivational construct that influences decisions, effort, perseverance, and accomplishment (Schunk; Dibenedetto, 2020) while motivation is the cornerstone for success in all activities in which an individual participates (Beirovi; Akbarov 2016). descriptive results show that students of PSAU, both in the undersgraduate and graduate programs, have a significant positive correlation between self-efficacy and motivation. One possible reason for such results is that all students are adjusting to the changes brought by the flexible learning modalities. However, not all programs relate positively to the academic performance of the students. Though results are not negatively significant, external factors other than self-efficacy and motivation may have attributed to the academic performance of the students. These can be possible through the challenges that students encountered during the flexible learning mode. Students can be persuaded by other people and when they are motivated, they believed in this persuasion.

On challenges, 4 out of 7 colleges answered that limited home setup for activities that require actual performances are the most challenging part during the flexible learning mode. This was followed by 6 out of 7 colleges which students responded that they were distracted by social media during the flexible learning mode. It can be concluded that social media has a big impact to students during the pandemic.

Learners are more motivated to strive for objectives they consider to be tough but reachable than goals they perceive to be extremely simple or too difficult. Underlying these features is the learner's commitment to striving to achieve the goal. Goals have little effect on motivation in the absence of commitment.

Based on the conclusions drawn from the results of the study, the researchers believe that there should be enhancement programs which will drive more motivations and help students in dealing with their beliefs,

persuasion and emotions. Since there is less negative correlations, researchers still recommend to have additional trainings or tutorials on subjects which bring difficulty to students and those that affect their grades.

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6. Auhors' Contributions

Each author conducted the research in collaboration with the College Deans, University Statistician, the Office of Student Affairs and Services and the Supreme Student Council.

7. Conflicts of Interest

No conflict of interest was found in this study.

8. Ethics Approval

Not applicable

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