Evaluation Of Learning Environment, Approach To Learning, And Learning Outcomes In Indonesian University Context

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Abstract

Evaluation of the learning environment during a pandemic is necessary to manage valuable lessons from global disruptions. The learning environment is critical because it affects approach and learning outcomes. A deep learning approach for students must continue to be built to produce generic skills and student satisfaction. This research was conducted at Prima Indonesia University in nursing education. Participants were divided into 2: Group 1, which started the course with purely online classes, and Group 2, which moved the course mode from face-to-face to entirely online UNPRI. Descriptive quantitative research methods with survey techniques were carried out in this study. The instruments were adapted from the Course Experience Questionnaire and the Study Process Questionnaire. The number of students who submitted a questionnaire was 68.5% which could describe the overall characteristics of students. The data was processed using the Structural Equation Modeling method. This study shows different experiences between groups in Appropriate Workload and Generic Skills. Group 2 experienced a reasonably heavy workload, and most generic skills were relatively high. This study did not find any relationship between Workload following learning outcomes. Appropriate Workload correlates with Good Teaching and Deep Approach to Learning. So Appropriate Workload has the opportunity to be increased immediately by increasing the capacity of the staff. The researchers recommend reviewing the curriculum and improving the staff's ability in student-centered learning. In addition, this study also has implications for further research.

Keywords: workload; teaching; deep approach; surface approach; generic skills; satisfaction.

I. INTRODUCTION

Alteration of the learning environment in higher education occurred instantly during the COVID-19 pandemic. Implementing restrictions on social interaction by the government requires a transformation in the mode of learning from face-to-face to entirely online. Universitas Prima Indonesia (UNPRI) staff were forced to immediately shift all teaching to pure online to continue the essential activities of the university even with restrictive experience. To make this moving well-ordered and more accessible, staff obtain short training and ongoing mentoring during online classes to ensure teaching and learning are running well. Likewise, students encounter this transformation and need to adapt to the online learning environment.

Evaluation of the online learning environment needs to be done to determine the quality of teaching as part of accountability (Macheridis and Paulsson, 2021). Shifts in context can affect students' perceptions of the quality of teaching and learning (Vermunt and Donche et al., 2017), such as the moving from face-to-face to online mode (Warfvinge et al., 2021), which is experienced by third- and fourth-year students. In addition, universities need to know the transition readiness of new students to the university context, which determines the success of student studies (Postareff et al., 2017) in online teaching.

The impact of shifts in the learning environment on learning approaches and outcomes must be scrutinized. If previously, students received explanations, discussed, and received feedback from lecturers on campus at any time, an online mode can reduce the intensities (Warfvinge et al., 2021). In addition, the ability of lecturers to manage teaching and workload impacted students' motives and self-regulation (Vermunt and Donche et al., 2017). Universities need to ensure quality teaching to encourage students to learn critically (Biggs, 1999; Vermunt and Donche et al., 2017). Student-centered teaching, which activates students in learning, is the strategy to improve the Deep Approach needed to acquire generic skills (Dolmans et al., 2016). Staff must understand the process of students acquiring generic skills in the context of their study program and its relation to student learning approaches.

Therefore, this research explores teaching quality during the pandemic using purely online mode in nursing education. Researchers want to examine the interrelationships of learning environment factors, learning approaches, academic results in online learning, and the impact of moving class mode. Thus, we can learn from these experiences during the global disruptions period and use them as preparation to face the complexity in the future (Warfvinge et al., 2021) to continue encouraging the sustainability of students' generic skills development throughout the course.

II. LITERATURE REVIEW

One form of university accountability is high student satisfaction with their academic university experiences and outcomes (Leveille, 2006). Student satisfaction is an important issue related to student loyalty, such as completing the study and recommending the programs to others (Douglas et al., 2008). Satisfaction is associated with outcomes (Douglas et al., 2008), including grade point average (GPA) and generic skills. GPA is used in various studies as a covariate (Bacon and Bean, 2006). Meanwhile, generic skills, such as problem solving, communicating, collaborating, planning, and critical thinking, are essential competencies required by every graduate to cultivate thriving and well-functioning life in society (Rychen and Salganik, 2003).

Universities need to provide teaching and learning that produces high-quality outcomes through active teaching and learning strategies (Cheng et al., 2018), such as Problem-Based Learning (PBL). The characteristics of PBL with real problems that students must solve in groups (De Graaff and Kolmos, 2003) were declared successful in improving the Deep Approach and reducing the Surface Approach (Dolmans et al., 2016). In the end, students acquired generic skills and GPAs (Cheng et al., 2018).

Students with a Deep Approach have a learning regulation strategy (Heikkilä et al., 2012; Vermunt and Donche, 2017) and the constructive conception of high learning, the concept of learning for personal change (Zhu et al., 2008; Vermunt and Donche, 2017) and using external regulatory strategies (Vermunt and Donche, 2017). They try to understand the meaning of what they are studying, try to find relationships between separate facts or views, structure the learning material into a larger whole, try to critically engage with what they are learning, as well as not limit themselves to the specified material (Vermunt and Donche, 2017).

In contrast, students with the Surface Approach do not have self-regulation to learn (Heikkilä et al., 2012); low self-efficacy and learning are seen as mere knowledge intake (Vermunt and Donche, 2017). They more often attribute academic success to uncontrollable causes such as exam difficulty and feel less confident than other students (Vermunt and Donche, 2017).

III. OBJECTIVE OF THE STUDY

The objectives of this study are:
1. To explore the quality of teaching in nursing education during the pandemic;
2. To explore the quality of learning in nursing education during a pandemic;
3. To explore the impact of the learning environment on learning approaches and learning outcomes in entire online teaching;
4. To explore the differences of learning experience with pure online mode.

IV. HYPOTHESES OF THE STUDY

The hypothesis of this study is

1) Appropriate Workload negatively affects the Surface Approach.
2) Appropriate Workload has a positive effect on the Deep Approach.
3) Appropriate Workload has a positive effect on GPA.
4) Appropriate Workload has a positive effect on Course Satisfaction.
5) Appropriate Workload positively affects the development of self-reported Generic Skills.
6) Appropriate Workload relates positively to Good Teaching.
7) Good Teaching has a positive effect on the Deep Approach.
8) Good Teaching negatively affects the Surface Approach.
9) Good Teaching has a positive effect on GPA.
10) Good Teaching has a positive effect on Course Satisfaction.
11) Good Teaching positively affects the development of self-reported Generic Skills.
12) The Deep Approach positively affects the GPA's academic achievement level.
13) Deep Approach positively affects the development of self-reported Generic Skills.
14) The Surface Approach negatively affects the GPA's level of academic achievement.
15) Surface Approach negatively affects the development of self-reported Generic Skills.
16) There are differences in learning experiences between Group 1 and Group 2.

V. METHOD

This research uses descriptive quantitative methods with survey techniques. This research also looked at the differences between the two groups: Group 1 is for first- and second-year students who, from the beginning, attend purely online classes, and Group 2 is for third- and fourth-year students who experience the moving of class mode from face-to-face to online.

Participants

Data is collected through an electronic questionnaire sent to students for the first to the fourth year of the nursing education. Respondents who collected questionnaires were 68.5% of the 130 students enrolled. Male students, in addition to the numbers, are indeed a small number and less proactive than female students, so the respondents of the two genders are 11.24% and 88.76%, respectively. Of these participants, 29.21% were in the first year, 22.47% in the second year, 34.83% in the third year, and 13.49% in the fourth year. This number of respondents has been used for this research need (Warfvinge et al., 2021).

Materials

The Course Experience Questionnaire (CEQ) measures aspects of teaching and learning quality and the development of Generic Skills. This instrument is a formal instrument related to the student learning approach and is usually used at the faculty level where students as a useful and informative source of data (Richardson, 2005; Marsh et al., 2011; Talukdar et al., 2013) which is also used in online mode course (Warfvinge et al., 2021). CEQ also asks students who agree or disagree (on a five-point scale) with statements related to their perception of the quality of their courses. There are three categories of CEQ used in this study: Good Teaching with six items, Appropriate Workload with four items (Ramsden, 1991), plus a Generic Skills scale with six items (Wilson et al., 1997). Each item is answered on a 5-point scale: (1) strongly disagree, (2) disagree, (3) hesitate, (4) agree, and (5) strongly agree. Items 1, 3, and 4 of appropriate workload mean negative. Cronbach's alpha coefficient for Appropriate Workload, Good Teaching, and Generic Skills is 0.944; 0.960; and 0.888, respectively. Cronbach's coefficient alpha showed an internal consistency. The validity of the construct is confirmed through the analysis of confirmatory factors. The loading factor for each Appropriate Workload indicator is 0.866; 0.875; 0.891; and 640, respectively. The loading factor for each Good Teaching indicator is 0.909; 0.812; 0.926; 0.924; 0.858; and 0.948, respectively. The loading factor for each Generic Skills indicator is 0.821; 0.849; 0.875; 0.871; 0.876; and 0.885, respectively. The indicators are declared valid for measuring their construct.

To measure Course Satisfaction, researchers used a question about overall satisfaction for the course. Respondents were asked to answer

their general experience of course satisfaction levels divided on a 5-point scale: (1) strongly disagree, (2) disagree, (3) hesitate, (4) agree, and (5) strongly agree.

The Study Process Questionnaire (SPQ) is one of the more widely used instruments developed to measure surface and deep learning. The deep/surface learning constructs identified by Marton and Saljo (1976), and Biggs (1979) use the terms deep learning and surface learning which are influenced by congruent motivation and corresponding learning strategies. The SPQ used in this research is in a short form with 12 items of the instrument developed by Fox et al. (2001). Items of motives and surface strategies have a negative meaning. Each item is answered on a 5-point scale: (1) rarely true, (2) sometimes true, (3) half the time correct, (4) often true, and (5) usually true. The Surface Approach consists of 3 items about the surface motive (Cronbach's coefficient alpha (α) = 0.889) and three items about the surface strategy (α = 0.770), as well as the Deep Approach consists of 3 items about the deep motive (α = 0.828) and three items about deep strategy (α = 0.858). Cronbach's coefficient alpha showed an internal consistency. The validity of the construct is confirmed through the analysis of confirmatory factors. The loading factor for each surface motive indicator is 0.833; 0.844; and 0.886, respectively; while for surface strategy it is 0.764; 0.849; and 0.574, respectively. We still enter the third item of the surface strategy even though the value is 0.574. The factor matrix value for each deep motive indicator is 0.761; 0.793; and 0.802, respectively; while for deep strategy it is 0.871;

0.724; and 0.860, respectively. Thus, the instrument is stated to be usable in this study.

In addition, we also collect students' outcomes. GPA is an academic achievement part of academic success (York et al., 2015). Other sources of educational success data in this study were taken from Course Satisfaction and Generic Skills.

Structural Model Conformity Test

The structural model conformity test with Goodness-Of-Fit (GOF) criteria showed that the model fit with the data. The RMSEA analysis result is 0.066, more diminutive than 0.08, so it is declared fit. Other fit indicators are TLI and CFI, with values of 0.926 and 0.934, respectively. Meanwhile, the indicators that are not fit are GFI and AGFI, with values of 0.736 and 0.684, respectively.

Test Different Learning Experiences

This research found similarities in the Good Teaching, Surface Approach, and Deep Approach variants between Group 1 and Group 2, which were characterized by the significance of homogeneity of Variances greater than 0.05. However, differences in variants occur for Appropriate Workloads, so both groups have different variations on workloads. In addition, the ANOVA results show that the Appropriate Workload and Generic Skills variables have a significance value of < 0.05, concluding that these two variables have different averages for the two groups. Data on variance and average of research variables are shown in Table 1.

Table 1. Homogeneity of Variances and ANOVA

	Homogeneity of Variances		ANOVA	
	Levene Statistics	Sig.	F	Sig.
Appropriate Workload	9.586	.003	6.130	.015
Good Teaching	1.675	.199	.876	.352
Surface Approach	.003	.959	.618	.434
Deep Approach	1.235	.269	2.779	.099
Generic Skills	2.252	.137	4.378	.039

Description of Statistics

In general, all variables' tendency level is moderately high. Course Satisfaction is the highest for the relatively high category with 77.53%, followed by Deep Approach and

Generic Skills, respectively. Meanwhile, Generic Skills has the highest for the high class with a total of 30.34 %, followed by Good Teaching and Deep Approach.

Appropriate Workload is stated to be relatively high by students. However, a few students noted that the Appropriate Workload is low, 22,47 %. Meanwhile, only a few students stated that the Appropriate Workload they experienced was in a high category.

Meanwhile, the Surface Approach percentage distribution is pretty even in each category. The percentage of Surface Approach experience is almost the same between high and low classes and the rate of reasonably high and low types, whose values are practically the same.

Table 2. Percentage of Variable Tendency Level

	High	Moderately High	Moderately Low	Low
Appropriate Workload	14.61	59.55	3.37	22.47
Good Teaching	29.21	49.44	12.36	8.99
Deep Approach	20.22	56.18	14.61	8.99
Surface Approach	17.98	35.96	29.21	16.85
Course Satisfaction	16.85	77.53	2.25	3.37
Generic Skills	30.34	52.81	14.61	2.25

The average of each research indicator has decreased with the length of the class period. The average difference between groups occurs in the Appropriate Workload and Generic Skills variables. This is shown in Table 3.

The average Appropriate Workload indicator appears to differ between groups. Group 2 experienced heavier workloads and less comprehensive understanding than Group 1. At the same time, all students feel relatively high pressure in lectures.

There are several differences in Generic Skills between the groups. Group 1 experienced a significant increase in the ability to solve problems, analyze, work in teams, and communicate. Meanwhile, Group 2 experienced a moderate increase for all Generic Skills indicators.

Both groups experienced significant Good Teaching. The difference between the groups only occurs in the amount of time provided by the lecturers, which is felt as lacking by Group 2.

The whole group was satisfied with the quality of the program. All of the students have significant Course Satisfaction.

Table 3. Summary of Average Research Indicators

Indicators	Mean						
	Overalls	Group 1	Group 2	Y1	Y2	Y3	Y4
Appropriate workload ($\alpha = 0.944$; mean = 3.16)							
AW1. The workload is too heavy.	3.39	3.71	2.97	3.92	3.5	3.1	2.83
AW2. We are generally given enough time to understand the things we have to learn.	3.36	3.72	3.01	3.69	3.75	2.94	3.08
AW3. There's a lot of pressure on you as a student here.	2.81	2.91	2.59	2.96	2.85	2.84	2.33
AW4. The sheer volume of work to be got through in this course means you can't comprehend it all thoroughly.	3.08	3.29	2.78	3.23	3.35	2.97	2.58

Indicators	Mean						
	Overalls	Group 1	Group 2	Y1	Y2	Y3	Y4
Good teaching (α = 0.960; mean = 3.59)							
GT1. The teaching staffs of this course motivate students to do their best work.	3.6	3.90	3.71	3.85	3.95	3.84	3.58
GT2. Staffs here put a lot of time into commenting on students' work.	3.13	3.17	2.97	3.19	3.15	3.26	2.67
GT3. The staffs make a real effort to understand difficulties students may be having with their work.	3.67	3.70	3.44	3.65	3.75	3.55	3.33
GT4. Teaching staffs give helpful feedback on how you are going.	3.58	3.67	3.46	3.54	3.8	3.58	3.33
GT5. Our lecturers are extremely good at explaining things to us.	3.76	3.96	3.56	3.81	4.1	3.61	3.5
GT6. Teaching staffs make subjects interesting.	3.83	3.79	3.49	3.77	3.8	3.65	3.33
Deep Approach							
Deep Motive (α = 0.828; mean = 3.33)							
DL1. Feeling of deep personal satisfaction while studying	3.46	3.60	3.36	3.54	3.65	3.29	3.42
DL2. Exciting whenever studying.	3.2	3.44	2.91	3.23	3.65	3.06	2.75
DL3. Increasingly absorbed in work.	3.34	3.53	3.10	3.46	3.6	3.19	3
Deep Strategy (α = 0.858; mean = 3.50)							
DL4. Think of real-life situations as learning the material.	3.58	3.67	3.38	3.54	3.8	3.68	3.08
DL5. Do enough work on a topic so that I form my point of view	3.62	3.75	3.46	3.54	3.95	3.58	3.33
DL6. Relate new material to what is already known on the topic.	3.29	3.48	3.04	3.5	3.45	3.16	2.92
Surface Approach							
Surface Motive (α = 0.889; mean = 2.68)							
SL1. Choosing present courses largely with a view to the job situation when graduating rather than intrinsic interest.	2.6	2.61	2.51	2.62	2.6	2.68	2.33
SL2. Continuing further study after leaving school because of the end results.	2.74	2.76	2.68	2.81	2.7	2.77	2.58
SL3. Continuing further education to get a well-paid or secure job.	2.71	2.56	2.82	2.42	2.7	2.97	2.67
Surface Strategy (α = 0.770; mean = 3.47)							
SL4. Studying seriously what's given out in class or in course outlines.	3.76	3.74	3.84	3.83	3.65	3.68	4
SL5. Restrict study to what is specifically set.	3.61	3.45	3.92	3.54	3.35	3.58	4.25
SL6. Accept the statements and ideas of lecturers.	3.04	2.89	3.28	2.88	2.9	3.13	3.42
Generic skills (α = 0.888; mean = 3.84)							
GS1. This course has helped me to develop my problem solving skills.	3.91	4.01	3.77	3.96	4.05	3.87	3.67
GS2. This course has sharpened my analytic skills.	3.96	4.12	3.80	4.08	4.15	3.77	3.83

Indicators	Mean						
	Overalls	Group 1	Group 2	Y1	Y2	Y3	Y4
GS3. This course has helped develop my ability to work as a team member.	3.67	4.12	3.73	4.08	4.15	3.71	3.75
GS4. As a result of doing this course, I feel more confident about tackling unfamiliar problems.	3.74	3.89	3.60	3.77	4	3.61	3.58
GS5. This course has improved my written communication skills.	3.92	4.05	3.52	4	4.1	3.61	3.42
GS6. This course has helped me develop the ability to plan my own work.	3.81	3.80	3.47	3.85	3.75	3.61	3.33
Satisfaction with course							
Overall, I am satisfied with the quality of this major.	3.91	3.99	3.88	3.88	4.1	3.84	3.91
GPA	3.58	3.56	3.56	3.57	3.55	3.58	3.54

There is a significant difference in one of the indicators of deep motive. Group 2 experienced less interest in learning, especially fourth-year students.

On the surface strategy, there is a significant difference in the 3rd indicator. Group 2 students quickly take opinions and ideas from lecturers for granted, while Group 1 still wants to question them and doesn't take them for granted.

VI. RESULTS

Hypotheses Result

The calculation results of the P-value calculation are shown in Table 4 so that it can be concluded whether or not there is a relationship between variables.

Appropriate Workload affects Surface Approach, Deep Approach, and Good Teaching but does not affect learning outcomes. The P-value of the Appropriate Workload variable on the Surface Approach is $*** < 0.05$ with a regression coefficient of -0.595, so the Appropriate Workload variable has a negative and significant effect on the Surface Approach variable. The p-value of the Appropriate Workload variable on the Deep Approach is $0.003 < 0.05$ with a regression coefficient of 0.358, so the Appropriate Workload variable has a positive and significant effect on the Deep Approach variable. The P-value of the Good Teaching variable on the Appropriate Workload is $0.005 < 0.05$ with a regression

coefficient of 0.356, so there is a reciprocal effect between the Good Teaching variable and the Appropriate Workload variable, which is positive and significant. The P-value of the Appropriate Workload variable on GPA, Course Satisfaction, and Generic Skills is 0.126, 0.185, $0.99 > 0.05$ so that the Appropriate Workload variable does not affect the GPA, Course Satisfaction, and Generic Skills variables.

Good Teaching affects the Surface Approach, Deep Approach, and learning outcomes. The P-values of the Good Teaching variables to Deep Approach, GPA, Course Satisfaction, and Generic Skills are $***$, 0.028, $***$, $0.017 < 0.05$, respectively, so that the Good Teaching variables have a significant effect on the Deep Approach, GPA, Course Satisfaction, and Generic Skills variables. The regressions coefficient of them are 0.366, 0.277, 0.563, 0.190, respectively. The P-value of the Good Teaching variable against the Surface Approach $= *** < 0.05$ with a reversal of -0.367, so the Good Teaching variable has a negative and significant effect on the Surface Approach variable.

Approach variable does not affect the GPA variable. The P-value of the Deep Approach variable to Generic Skills $= *** < 0.05$ with a regression coefficient of 0.313 so that the Deep Approach variable has a positive and significant effect on the Generic Skills variable.

The Surface Approach affects Generic Skills but not the GPA. The P-value of the Surface Approach variable to the GPA $= 0.433 > 0.05$, so the Surface Approach variable does not

affect the GPA variable. The P-value of the Surface Approach variable against Generic Skills = *** < 0.05, so the Surface Approach variable has a negative and significant effect on the Generic Skills variable.

Table 4. P-Value and Construct Structural Coefficient

			P	Structural Coefficient
Surface Approach	<---	Appropriate Workload	***	-.595
Deep Approach	<---	Appropriate Workload	.003	.358
GPA	<---	Appropriate Workload	.126	.253
Course Satisfaction	<---	Appropriate Workload	.185	.127
Generic Skills	<---	Appropriate Workload	.099	.177
Appropriate Workload	<-->	Good Teaching	.005	.356
Deep Approach	<---	Good Teaching	***	.366
Surface Approach	<---	Good Teaching	***	-.367
GPA	<---	Good Teaching	.028	.277
Course Satisfaction	<---	Good Teaching	***	.563
Generic Skills	<---	Good Teaching	.017	.190
GPA	<---	Deep Approach	.773	.035
Generic Skills	<---	Deep Approach	***	.313
GPA	<---	Surface Approach	.433	-.148
Generic Skills	<---	Surface Approach	***	-.474

Table 5 provides information on the direct effect of indicators on the construct, all of which are significant. Students stated that sufficient time and minimal pressure were essential things from the fairness of the workload. The most important indicator of good teaching is that lecturers can create interest in the course material and understand their learning difficulties. The apparent surface motive of students is to continue their studies so that it is easy to get a job later, and following direct instructions from lecturers or external regulations is the primary surface strategy they do. On the other hand, the motive for students to choose majors is their interest in their disciplines, and they want prior knowledge to be activated. According to student perceptions, the ability to communicate and plan is the main generic skill to acquire.

Table 5. Indicator Coefficient

	Estimate		Estimate		Estimate
AW1	.853	SL1	.840	Surface Motive	.915
AW2	.886	SL2	.835	Surface Strategy	.862
AW3	.888	SL3	.888	Deep Motive	.993
AW4	.653	SL4	.638	Deep Strategy	.947
GT1	.908	SL5	.720	GS1	.833
GT2	.817	SL6	.771	GS2	.861
GT3	.931	DL1	.778	GS3	.866
GT4	.926	DL2	.795	GS4	.870
GT5	.853	DL3	.782	GS5	.883
GT6	.943	DL4	.822	GS6	.873
		DL5	.803		
		DL6	.833		

Discussion

Students experience a lack of in-depth understanding of the lecture topic. It is related to the compressed curriculum, which is marked by a large number of workloads (Scully and Kerr, 2014; Hernesniemi et al., 2017) which prevents them from learning as directed and comprehensively as they want (Vermunt and Donche, 2017; Hailikari et al., 2018). Students feel the pressure to study is relatively high. In addition, there were differences in the perception of Appropriate Workload between Group 1 and Group 2. Group 2 experienced a lack of time, increased pressure, and increased workload (Warfvinge et al., 2021; Hailikari et al., 2018).

For this reason, the Nursing Department of UNPRI needs to discuss and restructure their learning experiences (Lam et al., 2012; Talukdar et al., 2013) to manage the lecture workload for diverse groups of students so that it ends in improving the quality of teaching and learning (Cope and Staehr, 2005; Scully and Kerr, 2014; Hernesniemi et al., 2017). Students' perceptions of the Appropriate Workload can be improved through constant and more straightforward communication about teacher expectations and targeted course reviews to implement a constructively aligned curriculum (Cope and Staehr, 2005; Scully and Kerr, 2014).

Several UNPRI Nursing Department students, 21,35 %, stated that Good Teaching was low quality. This number is significant enough that real action is needed to reduce it. Lecturers need to understand ways to increase interest in the course material, get more feedback, and better understand their learning difficulties (Douglas et al., 2008).

Good Teaching was found to have a significant reciprocal relationship with Appropriate Workload, which is in line with the results of other studies (Kember and Leung, 2006; Kyndt et al., 2014; Smith, 2019). The effect of Appropriate Workload on Good Teaching is 0.36 or large enough (Kyndt et al., 2014) so that it has the potential to improve the learning environment toward best teaching practices (Kember and Leung, 2006; Smith, 2019). These results suggest that factors such as student-centered teaching methods and the relationship

between lecturers and students influence students' perceptions of their workload (Kember and Leung, 2006; Struyven et al., 2006). Research by Kyndt et al. (2014) is in line with the results of this study which shows that students relate the ability of lecturers to increase interest in courses with Appropriate Workload as an essential thing.

Only a small number of students made the Surface Approach with a high category, 17.98 %. It is because the UNPRI Nursing Department has adjusted the relevance or functionality of higher education to current conditions (Lindblom-Ylänne et al., 2019).

This study states a positive correlation between the Surface Approach with Appropriate Workload and Good Teaching. It is in line with several previous findings (Baeten et al., 2010; Dolmans et al., 2016). This fact states that a constructive learning environment has a negative effect on the Surface Approach (Baeten et al., 2010; Vermunt and Donche, 2017). These results also prove that students' learning approaches change according to their learning environment (Struyven et al., 2006; Gijbels et al., 2014; Vermunt and Donche, 2017).

Deep Approach, Appropriate Workload, and Good Teaching are positively correlated, but all three constructs are inversely related to the Surface Approach value. Previous research also supports this result (Baeten et al., 2010; Dolmans et al., 2016; Richardson, 2011). Learning abilities can be developed through a constructive conception of learning, so lectures must encourage a Deep Approach through a constructivist learning environment that activates student learning (Struyven et al., 2006; Baeten et al., 2013; Vermunt and Donche, 2017). The shift from the learning approach that must be done is in terms of activities and responsibilities in learning (Struyven et al., 2006; Vermunt and Donche, 2017). Increasing the context of this learning environment needs to be done to facilitate high quality learning (Struyven et al., 2006; Baeten et al., 2013) and automatically reduce the Surface Approach (Richardson, 2011; Dolmans et al., 2016). In addition, the Department of Nursing at UNPRI needs to monitor student perceptions of the Appropriate Workload to monitor the impact of the learning environment

design that encourages the Deep Approach (Cope and Staehr, 2005)..

The facts presented here also show an increase in the perception of contextual factors – Appropriate Workload and Good Teaching – from the first group. It is a successful transition to higher education that can increase academic sustainability and study success (Asikainen et al., 2014; Postareff et al., 2017).

On the other hand, Group 2 experienced a decrease in Appropriate Workload and Good Teaching. It also implies that changing face-to-face and online modes worsens students' perceptions of the learning environment (Warfvinge et al., 2021). They rarely meet lecturers to consult, get feedback, and reinforcement, so they feel the workload is getting heavier, and the level of comprehensiveness is decreasing.

The data shows that Generic Skills are formed by Good Teaching and Deep Approach but negatively correlate with the Surface Approach (Richardson, 2011). The Deep Approach includes elements that promote a deep understanding of what they are learning: performance, analyzing, seeking underlying principles, comparing, contrasting, relating, explaining and critically evaluating knowledge (Biggs 1979; Dolmans et al., 2016), and is thus associated with higher quality learning outcomes and higher achievement (Rytkonen et al., 2012; Asikainen et al., 2014).

On the other hand, there was a significant difference in Generic Skills from Group 1 to Group 2. Since the beginning of lectures using online mode, students stated that they obtained higher Generic Skills than their classmates who experienced a change in the learning environment from face to face to online mode. The ANOVA results clearly show the difference, proving that lecturers have difficulty with time and support to continue building students' generic skills (Cheng et al., 2018). These results also show that the learning context indirectly impacts learning outcomes, especially Generic Skills.

The factor that influences student GPA is Good Teaching. Good teaching produces quality learning activities that also result in quality learning outcomes (Vermunt, 2005). These

results suggest that students' perceptions of the teaching-learning environment and their learning approach should be considered essential factors are influencing academic progress (Rytkonen et al., 2012; Vermunt and Donche, 2017).

Student satisfaction with the course is categorized as relatively high, with second-year students feeling high satisfaction. With this level of satisfaction, students will continue their studies to completion and recommend their majors to others (Blackmore et al., 2006; Douglas et al., 2008).

Factor that affects Course Satisfaction is Good Teaching. This finding is in line with the results of other studies, which state that teaching and lectures are the aspects that contribute the most to the satisfaction of the university's primary customers, in this case, students (Blackmore et al., 2006; Douglas et al., 2008, Douglas et al., 2006).

VII. CONCLUSION

CEQ and SPQ in the context of nursing education can be used to evaluate the learning environment and student learning approaches and predict learning outcomes. Recommendations are given to the nursing education department to assess the curriculum, improve communication between lecturers and students regarding the curriculum and their expectations, advance lecturers' teaching abilities, and monitor program implementation's impact on changes in student learning approaches.

This study has several limitations. This research focuses on one nursing education major, so it cannot generalize its use to other majors. Furthermore, the sample size of 89 students is relatively small. More research is needed with larger sample size and a wider choice of disciplines. We also need further studies to examine the nature of the use and development of surface and in-depth approaches in universities. For this reason, a combination of quantitative and qualitative research with various measurement techniques to capture the process and elements of the learning approach needs to be carried out. Finally, we emphasize that our focus has been on dimensions related to the study process and left out other factors, such

as the personality and social background of the student.

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