Nursing Students Engagement in the Classroom and Clinical Practice: A Literature Review

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Abstract. Background: The engagement of nursing students is very important and can affect their progress and success in the nursing profession in the future. In nursing students their learning process is carried out in two environments, in the classroom and in the clinical practice, so that their engagement in both learning environments is very important to help students become more effective, current, and knowledgeable as they became engaged nursing dan become quality nurses. Purpose: The purpose of this research is to identify dan to explore the engagement of nursing students in the classroom and in clinical practice

Methods: This study used a literature review design. This research used a database of indexed international journals such as Pubmed, Google Schoolar, Science Direct, and BMC for the period 2011-2021 to search for research articles. The keyword used was 'Nursing Students, Students Engagement, Classroom, Clinical Practice' and obtained 12 research articles. Research articles have been screened according to inclusion criteria of this research, namely the articles containing student engagement or the engagement of nursing students in the classroom or clinical practice.

Results: Nursing students engagement in the learning process takes place in two environments, in the classroom and the clinical environment. Various studies on the engagement of nursing students showed a high level of engagement in the learning process that influenced by various factors including students, student with other students relationship, teachers, student-teacher/clinical instructors relationships, learning strategies, learning methods and student relationships with the learning environment.

Conclusion: The engagement of nursing students is very important for their progress in the future profession, because the level of engagement will lead to various short-term and long-term learning outcomes. Engagement will affect the learning process of students in the classroom and develop academic skills in a clinical environment so that it will have an impact on student learning outcomes.

Key words: nursing students; students engagement; classroom; clinical practice.

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INTRODUCTION

Learning can be referred to as a complete and continuous life process (Mohi-ud-din, 2019). In learning activities, events that often occur are students who are less active, less participating, less involved and have no initiative. Questions, ideas and opinions often do not arise. Events that can occur on the lecturer's side include authoritarian lecturers, unidirectional material delivery, considering students as recipients, note takers and recording machines (Murniati dkk, 2013). Negative things like that often contribute greatly to student failure to take the course or lack of student learning outcomes. For nursing students, this can affect the quality of student clinical practice in the field. Student learning outcomes can be increased influenced by many factors, one of which is engaging students in the learning process (Mohi-ud-din, 2019).

Student engagement is also included in the nursing student learning process. Nursing students can improve their professional learning outcomes by being excited and motivated to be engaged in the learning process. Students can be

involved by practicing complementing and providing new ideas in the nursing practice process (Hudson, 2015). Student engagement is very important for their sense of learning and assimilation, and their ongoing successful progression within the nursing profession. Engagement is an important aspect of quality nursing behavior. There are three components of engagement, including behavioral engagement, emotional engagement, and cognitive engagement (Hudson & Carrasco, 2015).

Affective engagement is related to positive emotions during learning, it can be in the form of interest, pleasure and enthusiasm during learning. On cognitive engagement, it relates to mental effort such as the strategy used, concentration and metacognition. On behavioral engagement it relates to student behavior that can be observed during learning, including time-on tasks, active participation in the discussion, questions asking, and any other positive behavior in the classroom (Rahayu, 2018).

Today's care providers have changed to meet the current demand for services for multifaceted,

acute and chronic illnesses, so there is a need for appropriate learning styles to promote nursing health education reform and nursing quality. The five multifaceted fundamental competencies announced by the Institute of Medicine"s (IOM, 2003) recommendations include all health professionals should be educated to provide patient-centered care, work as members of an interdisciplinary team, employ evidence-based practice, apply quality improvement approaches, utilize informatics (Hudson, Engagement can help move students to become more independent thinkers and well-rounded problem solvers problem solvers to meet these necessary transitions. Educators continue to make learning style transitions following current learning priorities, there are active, participatory, experiential, and contextualized interactions (Crookes et al., 2013).

Nursing students in the learning process are educated and supported in multiple roles, in the classroom and in clinical practice. Students who have active engagement in both environments in helping students become more effective, current, and knowledgeable as they became engaged nursing (Hudson, 2015). Meanwhile, engagement in the classroom begins with a transition from traditional to active learning, where educators begin to intersperse several questions to stimulate discussion, this therapy is still not active enough. Student engagement in the classroom can be done by reeking into various sized groups which work on specific problem-solving, or re-viewing and critiquing required content articles, and/or organizing various types of presentations. While the engagement in clinical practice, according to Midgley (2006) students can be involved in responding to and dealing with unexpected and

unplanned activities in clinical practice. Learning opportunities in these clinical settings are predominantly experiential learning (Hudson, 2015).

Based on this description, it is needed analyzing research articles about 'Nursing Students Engagement in the Classroom and Clinical Practice'. The purpose of this research is to identify and to explore the engagement of nursing students in the classroom and in clinical practice.

METHODS

This study used a literature review design. The article search strategy used database of indexed international journals such as Pubmed, Google Schoolar, Science Direct, and BMC. Researchers conducted a journal search in July 2021 with a maximum limit of publication of research articles within the last 10 years. Search for research articles using the keywords 'Nursing Students, Students Engagement, Classroom, Clinical Practice'. The inclusion criteria used in this study include articles published in indexed international journals for the period 2011-2021, accessible in full text, research articles in English, types of original research articles and articles containing student engagement or the engagement of nursing students in the classroom or clinical practice. The exclusion criteria in this study are research articles that are not indexed by international journals, articles are only in abstract form and articles contain other than student engagement in classrooms and clinical practice. The research articles obtained from the search were 12 articles, analyzed and synthesized in a table containing the author's name, title of article, year of publication, methodology and research results.

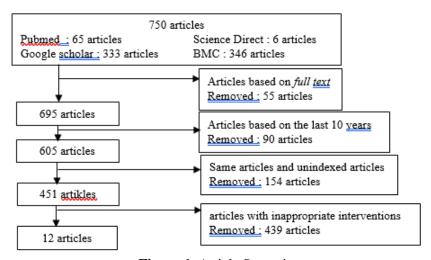


Figure 1. Article Screening

RESULT AND DISCUSSION

Table 1. Research article review summary

1.	Title	Authors	Year	Methodology	Result
	Researching	Kathleen Hudson	2015	This study	The results of the
	Nursing	and Rebecca		utilized a mixed	research from the
	Students'	Carrasco		methods	Student Engagement
	Engagement:			approach,	Questionnaire data
	Successful			including both	show that in the aspects
	Findings for			post-intervention	of Self-managed
	Nursing			Likert scale	learning, Relationship
	- 14			quantitative	with other students,
				questionnaire	relationship between
				and 4 brief open-	teaching staff, Hybrid
					course feedback, and
				ended qualitative	· · · · · · · · · · · · · · · · · · ·
				questions. The	Mental health course
				tool used,	scores, the average
				Student	score is high to very
				Engagement	high, which is a score
				Questionnaire,	range of 3,5 to 4.5.
				seeks to assess	Students respond that
				the level of	the course activities
				student	help them understand
				engagement	patient care in the real
				within their	world of nursing and
				formal studies.	can combine classroon
				Participants in	and clinical content to
				this study were	learn how to apply the
				lever two nursing	content. This course
				student enrolled	activity also makes
				in a psychiatric	students more prepared
				nursing course	to deal with patients
				during the fall of	directly in clinical
				2014 and spring	practice, students
				2015 semesters,	become better prepared
				consisting of 44	and understand better
				respondents who	how to approach openl
				agreed to	with therapeutic
				participate in this	communication, how to
				study.	respond to patients and
				study.	more confidently.
2.	Numaina	Vathlaan Hudaan	2019	The study used o	The results showed that
٤.	Nursing	Kathleen Hudson,	2019	The study used a	
	. 1 .			Student	students had a high
	student	Zhaomin He and			
	engagement:	Zhaomin He and Rebecca Carrasco		Engagement	average on the
	engagement: Researching			Engagement Questionnaire	average on the engagement of each
	engagement: Researching the journey and			Engagement	average on the engagement of each subscale or overall with
	engagement: Researching the journey and its potential			Engagement Questionnaire	average on the engagement of each subscale or overall with an average score of
	engagement: Researching the journey and			Engagement Questionnaire consisting of five	average on the engagement of each subscale or overall with an average score of
	engagement: Researching the journey and its potential			Engagement Questionnaire consisting of five subscales.	average on the engagement of each subscale or overall with an average score of
	engagement: Researching the journey and its potential impact on			Engagement Questionnaire consisting of five subscales. Respondents of	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out by calculating	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students reported high results of
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out by calculating the average of	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students reported high results of teamwork and
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out by calculating the average of each subscale	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students reported high results of teamwork and collaboration, as well a
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out by calculating the average of each subscale and the overall	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students reported high results of teamwork and collaboration, as well a positive responses to
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out by calculating the average of each subscale and the overall average.	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students reported high results of teamwork and collaboration, as well a positive responses to their teachers such as
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out by calculating the average of each subscale and the overall	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students reported high results of teamwork and collaboration, as well a positive responses to
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out by calculating the average of each subscale and the overall average.	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students reported high results of teamwork and collaboration, as well a positive responses to their teachers such as
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out by calculating the average of each subscale and the overall average. Statistical analysis tests	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students reported high results of teamwork and collaboration, as well a positive responses to their teachers such as trying to help students understand, wanting
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out by calculating the average of each subscale and the overall average. Statistical analysis tests used independent	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students reported high results of teamwork and collaboration, as well a positive responses to their teachers such as trying to help students understand, wanting students to learn hands
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out by calculating the average of each subscale and the overall average. Statistical analysis tests used independent samples Mann-	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students reported high results of teamwork and collaboration, as well a positive responses to their teachers such as trying to help students understand, wanting students to learn hands on and students want to
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out by calculating the average of each subscale and the overall average. Statistical analysis tests used independent samples Mann- Whitney's and	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students reported high results of teamwork and collaboration, as well a positive responses to their teachers such as trying to help students understand, wanting students to learn hands on and students want to excel. The support and
	engagement: Researching the journey and its potential impact on transitions to			Engagement Questionnaire consisting of five subscales. Respondents of this study involved 251 nursing students level 2 and level 4. Data analysis was carried out by calculating the average of each subscale and the overall average. Statistical analysis tests used independent samples Mann-	average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The result also showed a significant difference between the engagement of level 2 and 4 students (p=0.013). Students reported high results of teamwork and collaboration, as well a positive responses to their teachers such as trying to help students

				student	patients better by being
				engagement.	engaged' in making shared decisions
3.	Nursing	Kathleen Hudson	2017	This study used a	There are quantitative
	Student	and Rebecca		sample of	findings in this study, it
	Engagement: Taking a	Carrasco		nursing students level 2 and 4.	was found that students have high engagement
	Closer Look			The instrument	on campus. Intellectual
	Closer Look			used was the	aspect showed a
				Student	significant interaction
				Engagement	effect (p=0.037). In the
				Questionnaire	aspect of working
				which consisted	together, it showed that
				of 35 questions	student engagement is
				and was followed by two	high and the same at every level and campus.
				open-ended	In the teaching aspect,
				questions to	it showed a significant
				identify the level	effect ($p = 0.005$). The
				of student	teacher-student
				engagement	relationship showed a
				during the	significant difference in
				nursing course.	smaller campuses (p=0.008) with a lower
				Analyses including	difference at level 4. In
				descriptive,	general, it showed that
				statistical	the level of engagement
				factorial	and satisfaction of
				ANOVA, and	students was high with
				qualitative	the campus
				review were utilized when	teaching/learning environment.
				comparing	chvironment.
				results.	
4.	Exploring	Amna Abdul Sattar,	2018	This study used a	The results of this study
	Nursing Students	Rubina Kouar, Syed Amer Gillani		cross-sectional	showed that from the 3
				quantitative	domains student
	Engagement in Their Learning			research design. The research	engagement (Meaningful process
	Environment			sample was 135	(3.75±), Participation
	211,11011110111			from the Lahore	$(3.35\pm)$ and Focused
				School of	attention (3.25±)) had a
				Nursing at the	high average score. The
				University of	three sub-domains also
				Lahore using the Student	have a positive correlation, where if
				Engagement	one sub-domain
				Questionnaire	increases, it will have a
				(SEQ)	positive effect on the
				instrument	other sub-domains. All
				developed by	domains of student
				David Kember and Doris	engagement are very
				Leuing.	important for student nurses in the classroom
				Statistical	as well as in the clinical
				analysis tests	practice setting. The
				used descriptive	research also student
				statics, Pearson	engagement in this
				correlation, and	study did not show a
				regression analysis.	significant relationship to GPA scores, but it is
				anary 818.	necessary that students
					with low GPAs will
					usually try to be more
					involved in learning so
					that subsequent results
					will be better.

5.	Exploring nursing student engagement in the learning	Melba Sheila D'Souza, Chandrani Isac, Ramesh Venkatesaperumal,	2014	This study used an exploratory cross-sectional research design.	The results showed that from all subdomains of student engagement (SE), 48%-68% of
	environment for improved learning outcomes	K Subrahmanya Nairy, Anandhi Amirtharaj		The sample used was 250 nursing students. The instrument used	students had a high average score. Students have engagement at various levels such as
				is the Student Engagement Questionnaire (SEQ). Analysis	with peer groups, faculty and in academic and clinical work to improve cognitive,
				of the data in this study using NVivo software	emotional and behavioral learning and academic performance. Increasing the
				program to analyze the responses open and look for the	engagement of nursing students in the classroom can be done
				code that appears significantly in the encoding	by using active learning in the classroom, discuss in small groups,
				analytically. Thematic content analysis and constant	and teachers who facilitate active. In a clinical environment, students prefer to
				comparison techniques were also carried out	develop behavioral competence through independent practice,
				to draw conclusions from the text	the ability to seek knowledge and appropriate
6.	Association Between the Use of Active	Anam Mohi-ud-Din, Muhammad Hussain,	2019	This study used a correlational, descriptive,	information. The results showed that there was a significant relationship between
	Learning Strategies and	Muhammad Afzal Syed and Amir		cross-sectional design. The	active learning strategies and the
	Classroom Engagement Among Nursing	Gillani		sample used was 177 nursing students. The instruments used	engagement of nursing students in the classroom (r=.225, p<0.05). Students will
	Students			for data collection are	tend to be more involved and pay more
				Active Learning Environments Scale (ALES) and Adapted	attention to class when taking notes, actively listening to lectures or working in groups and
				Engaged Learning Index (AELI). Data	participating in group discussions.
				analysis using Descriptive statistics and inferential	
7.	The association between academic	Maria J Casuso- Holgado, Antonio I Cuesta-Vargas,	2013	statistics. This study used a cross-sectional research design	The results showed that there was a significant relationship between
	engagement and achievement in	Noelia Moreno- Morales, Maria T Labajos-		and involved 304 health science students who	engagement and academic achievement, although the
	health sciences students	Manzanares, Francisco J Barón- López and Manuel Vega-Cuesta		were asked to fill out the Utrecht Work Engagement	relationship was not strong enough to have a high predictive value (r<0.3).
		v ega-cuesta		Scale for	(1~0.5).

8.	Strategies for sustaining and enhancing nursing students' Engagement in academic and clinical settings: a narrative review	Mohammad Reza Ghasemi, Hossein Karimi Moonaghi and Abbas Heydari	2020	Students (UWES-S) instrument. Data analysis used descriptive statistics and the main analysis was guided towards a search for the correlations. The method used is a non- systematic narrative literature review. Scientific articles were collected from the CINAHL database (nursing content), ProQuest, Medline, Cochrane, Google Scholar, and Scopus with the keyword 'engagement, nurse, student' with a publication date of January 2020- June 2019 and obtained 32 scientific	The results showed that there were five categories of teaching strategies to promote the engagement of nursing students. the main categories include technology-based strategies, collaborative strategies, simulation-based strategies, research-based strategies, and miscellanea learning strategies, from all these categories technologies- and simulation-based strategies are the most attractive strategies for students and make students more active in the learning process.
9.	Can flipped classroom enhance class engagement and academic performance among undergraduate pediatric nursing students? A mixed methods study	Toqa Jameel Abbas Busebaia and Bindu John	2020	articles. The study used the Action Research (AR) method with a mixed method with 26 respondents from nursing students from the pediatric course. The instruments used were Student Class Engagement Checklist, Quizzes, and Focus group semi-structured interview questionnaire. Data analysis used Friedman test and systematic transformation to analyze qualitative content.	The results showed that there was a significant relationship between flipped classroom and student engagement (p 0.001). Flipped Classroom (FCR) can increase student engagement through active learning and can improve student learning outcomes. Students become more confident and can adapt to their learning style. Using a combination of approaches such as preclass activities, self-paced video lectures, and post-class activities provides a very effective way for students to understand learning materials.

10.	Engagement in clinical learning environment among nursing students: Role of nurse educators	Melba Sheila D'Souza, Ramesh Venkatesaperumal, Jayanthi Radhakrishnan, and Shreedevi Balachandran	2013	Review of article literature	The results showed that students preferred to be engaged in a clinical practice environment through several things including diversity experiences such as being engaged in handling various cases or problems, engaging in discussions with colleagues and attending various clinical events. Second, collaborative learning opportunities through case scenarios, evidence-based practice, e-learning, portfolio studies and simulations, this is done with collaborative learning to encourage students to think deeply about the cases presented. Third, student-faculty interactions, nurse educators in this case are helping students to improve clinical problem solving skills, facilitating intellectual progress and increasing clinical satisfaction, and the last is active learning, in a clinical environment such as conducting comprehensive care, writing case studies, reflective practice, looking for evidence-based references, participating in clinical discussions and many more, in this case nurse educators must utilize active learning in students' clinical practice activities.
11.	Nursing Student Engagement: Student, Classroom, and Clinical Engagement	Kathleen F. Hudson	2015	Review of article literature	In the classroom, student engagement can be done by solving certain problems in small groups, critiquing content articles, through quiz questions and arranging various types of presentations. This engagement is especially related to the engagement of teachers during learning, such as teachers who provide feedback, have communication skills,

and are able to convey various challenging topics through various content to provide positive encouragement for students. In a clinical environment, student engagement will relate to the diversity of patient status and conditions, students will carry out experiential learning. The engagement of students in the clinical practice environment of the course is closely related to the role of students' clinical instructors 12. 2013 Student nurses' Annelie J. Sundler, Research method The results showed that experiences of Maria Björk, using A crossstudents generally had a positive experience in the clinical Birgitta Bisholt, sectional with learning Ulla Ohlsson. comparison their clinical learning environment in Agneta Kullén design with a environment. The study Engström, and mixed method. showed that the relation to the organization of Margareta The sample used organization of supervision: A Gustafsson 183 nursing supervision was related questionnaire students to fill to the pedagogical out the Clinical atmosphere (p 0.025) survey and the relationship Learning instrument with the supervisor (p Environment. 0.001). The role of the Supervision and precept has an Nurse Teacher important influence on (CLES + T).clinical practice, Data analysis students have more using Kruskalsatisfaction and positive Walis test and experiences regarding Mann-Withney the supervisory U-test. relationship and clinical placement, when they have a personal mentor than were those who had different preceptors each day.

Discussion

Based on a literature review of 12 research articles that have been analyzed, it shows that in general there is a high level of engagement of nursing students in the classroom and in the clinical environment, this engagement is influenced by various factors, various parties and various strategies and methods during learning process.

Engagement

Engagement is an active learning which is very interactive, problem-oriented, that encourages participation and contribution from everyone involved, where the higher the level of engagement, it will provide more information and understanding student (Hudson, 2015). Although the definition of engagement is still being developed, according to Krause and Coates (2008), engagement is summarized into multidimensional aspects (Lester, 2013), this is also explained in the theory of Fredricks, Blumenfeld, and Paris (2004) that engagement is a multi-falset construction consisting of several components and interconnected with the importance placed on their relationship to one another (Fredricks et al., 2004). Engagement also define as a persistent and pervasive affective-cognitive state or a work-related state of vigor, dedication and absorption (Schaufeli et al., 2002).

Student Engagement

Student engagement is an energy and effort of students in their learning community, which can observed through several (behavioral, cognitive and affective) across a continuum, shaped by structural and internal influences, including complex interactions of relationships, learning activities and the learning environment, where more and more the level of student engagement will then lead to a variety of short and long term learning outcomes and can encourage further student engagement (Bond & Bedenlier, In addition, 2019). student engagement can also be defined as a student's psychological investment and efforts in the learning process to understand and master the material, skills and instructions (Rahayu, 2018).

In relation to the concept of engagement, student engagement as a multidimensional construct also has several dimensions (Shernoff et al., 2016). There are three primary dimensions to student engagement, namely behavioral engagement engagement, cognitive emotional engagement (Ryu & Lombardi, 2015). Behavioral engagement it relates to student behavior that can be observed during learning, including time-on tasks, active participation in the discussion, questions asking, and any other positive behavior in the classroom. On cognitive engagement, it relates to mental effort such as the strategy used, concentration and metacognition. Affective (emotional) engagement is related to positive emotions during learning, it can be in the form of interest, pleasure and enthusiasm during learning (Rahayu, 2018).

Nursing Student Engagement

The engagement of nursing students is very important for success in nursing programs with the aim of remaining in the profession for a long time after graduation. There are 3 things to focus on regarding the engagement of nursing students, including engagement between the student and teacher, the student connection with their learning, and the student linking with their learning environment (Bowcock & Peters, 2015).

The description of the level of engagement of nursing students in various learning activities can be seen from the research by Hudson & Carrasco (2015) that from the Student Engagement Questionnaire data showed that in the aspects of Self-managed learning, Relationship with other students, relationship between teaching staff, Hybrid course feedback, and Mental health course scores, the average score is high to very

high, which is a score range of 3,5 to 4.5. Then the research from Hudson et al., (2019) that that students had a high average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. Increased student involvement occurs with academic goals and is associated with the ability to pursue ideas independently and synthesize information which ultimately leads to a desire to learn independently (Kuh, 2010). Carini, Kuh and Klein stated that student engagement in clinical learning and increasing student academic success had a clear relationship with high student motivation (Carini et al., 2006).

In addition, research from Sattar et al., (2018) also mentions that from the 3 domains student engagement (Meaningful process Participation $(3.35\pm)$ and Focused attention (3.25±)) had a high average score, and research from D'Souza et al., (2013) that from all subdomains of student engagement (SE), 48%-68% of students had a high average score. Nursing students on the opportunity to learn together and think about the subject matter are more deeply engaged than other students in conventional courses using learning(Feingold et al., 2008). Students who are engaged in learning get better grades and experience increased practical competition along with the ability to transfer skills to new situations (Braxton et al., 2000).

Several studies have discussed that student engagement is related to academic achievement, where the higher the student engagement, the higher the student's academic value obtained. Research conducted by Casuso-Holgado et al. (2013) showed that there was a significant relationship between engagement and academic achievement, although the relationship was not strong enough to have a high predictive value (r<0.3). The results of the study are supported by the statement Svanum et al. (2014) that students who have high academic engagement are 1.5 times more likely to graduate and take 1 semester. less is needed, besides that students will get a higher GPA. Another study from Sattar et al., (2018) showed the opposite result that student engagement in this study did not show a significant relationship to GPA scores. This is not in line with research from Popkess (2010) that there is no relationship between reported mean scores and student engagement (Popkess, 2010). However, this does not always happen, because students with low GPAs will usually try to be more involved in learning activities so that subsequent results will be better and improve (Sattar et al., 2018).

Nursing students are formed and educated in multiple roles, they are not only educated to be engaged in learning in the classroom, but also in a clinical practice environment (Hudson, 2015). Student engagement can help students become more independent thinkers and problem solvers to help facilitate the necessary transitions. Transitioning learning styles must continue to be sought by teachers to be more in line with current learning priorities, namely active, participatory, experiential and contextual interactions (Crookes et al., 2013).

Nursing Student Engagement in the Classroom

Student engagement in the classroom is an activity that involves students' attention, interest, investment and efforts in learning. This engagement is different from i engagement in the school environment, where it will be seen from the engagement of students in their participation in extracurricular activities, attendance, records of referrals and suspensions (Wang et al., 2014). Engagement at the class level focuses on student engagement in learning activities directly and intentionally (Rahayu, 2018).

In the classroom, student engagement can be facilitated through group work or presentation activities which of course require teacher engagement, this is in accordance with research conducted by Hudson (2015) that In the classroom, student engagement can be done by solving certain problems in small groups, critiquing content articles, through quiz questions and arranging various types of presentations. This engagement is especially related to the engagement of teachers during learning, such as teachers who provide feedback. communication skills, and are able to convey various challenging topics through various content to provide positive encouragement for students. This is in line with research D'Souza et al. (2013) that students prefer to discuss in small groups to help their critical thinking, problem solving skills and interact with the teacher by voicing their thoughts and getting feedback from the teacher to stimulate discussion.

Teachers facilitated student engagement through active learning such as discussions, presentations, defenses, and nursing debates. The engagement of educators from students' perceptions of effective learning showed that teachers' knowledge, feedback and communication skills are important for their

positive encouragement, so educators in particular should be engaged in order for student learning to be at a higher level (Kelly, 2007). Student-teacher relationship from students' perception showed that teachers have a good relationship with students in teaching and are willing to help students even extra help if needed, accommodate student consultation and make students become more confident in asking questions (Hudson & Carrasco, 2017).

Student success in academics has a close relationship with active learning strategies (Miller & Metz, 2014). The research conducted by Mohi-ud-din (2019) showed that there was a significant relationship between active learning strategies and the engagement of nursing students in the classroom (r=.225, p<0.05). Students will tend to be more involved and pay more attention to class when taking notes, actively listening to lectures or working in groups and participating in group discussions. National Survey of Student Engagement (NSSE) measures active learning on the following grounds: presentation making, working with fellow students on classroom projects, asking questions and contributing through answers, working with fellow students on assignment outside classroom settings, teaching peers, working on a community based project and discussing course material with people outside class (Carr, 2015). Active learning is an effective implementation in relation to increasing student engagement and actually having an impact on student learning (Oermann, 2015). Student engagement among nursing students can be promoted through active learning which has a positive effect on problem solving, critical thinking and persistence (Braxton et al., 2000).

The flipped classroom method for students can be one way to encourage their engagement and academic performance during learning, this is reinforced by Busebaia & John (2020) research that there is a significant difference by showing an increase in student engagement with the flipped classrom method (p 0.001). Flipped classroom is an approach that can be adjusted by students, resources and time and involves students in active learning in the classroom by utilizing more collaborative activities under the direction and supervision of the instructor (Berrett, 2012). This approach focuses on creating a student-centered learning environment, so that students feel more competent when given the opportunity to actively participate in the dissemination of knowledge rather than being passive recipients, besides that students become

more confident and can carry out their own learning style (Abeysekera & Dawson, 2015), and classroom discussions help students generate ideas, lead to better understanding of concepts and applications in clinical practice, improve critical and reflective thinking. In the clinical learning curriculum of nursing students, the flipped classroom model can also improve clinical learning skills and student scores by using video and quiz instruments to help build content and improve practice (Bergmann & Sams A, 2011). The use of video will be very good as one of the learning strategies, because research from (Ghasemi et al., 2020) showed that the category of technology-based strategies, one of which is video, is the most interesting for students and makes students more active in the learning process. In addition to being technology-based, students are more interested in simulation-based techniques such as simulation with manikin and tag team simulation. Simulation based techniques is an effective procedure to increase the engagement of nursing students (Power et al., 2016), instructors can actively involve students to promote their simulation skills and experiences (Levett-Jones et al., 2015).

There are some students who like online classes because it allows students to get more reading and learning concepts (Hudson & Carrasco, 2015). This online learning technique is now widely applied at various levels of education due to the Covid-19 pandemic. Student engagement must continue to be ensured and promoted in this online class, because teachers in online classes cannot see directly the students who take part. The research from Hamptom & Pearce (2016) found that students in online classes had a high average score of engagement (4.15). Students who use internet technology and learning techniques that are more reflective and integrative get more practical competencies and experience a lot of personal and social development, this showed that there is a positive between relationship technology/web-based learning on the level of engagement and learning outcomes (Angelino & Natvig, 2007).

Teachers who teach online classes need to be friendly and enthusiastic by responding promptly to student messages, assessing levers frequently and posting course updates (Foronda, 2014). According to Conrad and Donaldson (2012) that the success of online-based classes by utilizing internet technology relies on the instructor's ability to create a sense of presence (the dynamic interplay of thought, emotion, and behavior) and

student engagement in the learning process. The key to student engagement in online learning is for students to be engaged and supported to take responsibility for their learning (Groccia, 2018)

Nursing Student Engagement in the Clinical Practice

The quality of clinical experience in the nursing curriculum will greatly affect the quality of nursing education, so that the engagement of nursing students in clinical learning needs to be done to improve critical thinking skills, openness to diversity, and facilitate openness to challenges (Pascarella et al., 2006). Clinical practice is essential to nursing education as it provides experience with patients and work environments that prepare students for future work as nurses. significance of practice regarding development of clinical skills and integration of theory and practice is widely recognized (Midgley, 2006), as is its impact upon students' choice of future workplaces (Henriksen et al., 2012).

The engagement of nursing students in the clinical environment is a student's willingness to participate actively and survive despite obstacles and challenges in the learning process in the clinical environment. In research conducted by D'Souza, et al., (2013) showed that students preferred to be engaged in a clinical practice environment through several things including diversity experiences, collaborative learning opportunities, student-faculty interactions and active learning. Diversity experiences such as being engaged in handling various cases or in discussions problems, engaging colleagues and attending various clinical events, this is a unique learning in a clinic that is rich in cultural diversity. Second, collaborative learning opportunities through case scenarios, evidencebased practice, e-learning, portfolio studies and simulations, this is done with collaborative learning to encourage students to think deeply about the cases presented. Various studies have documented the positive impact of collaborative learning together on student engagement and development (Cabrera et al., 2002). Third, student-faculty interactions, nurse educators in this case are helping students to improve clinical problem solving skills, facilitating intellectual progress and increasing clinical satisfaction. The last is active learning, in a clinical environment such as conducting comprehensive care, writing case studies, reflective practice, looking for evidence-based references, participating

clinical discussions and many more, in this case nurse educators must utilize active learning in students' clinical practice activities. Nurse educators in promoting student engagement in clinical activities by utilizing active learning strategies using teaching for learning and coherence with clinical practice coupled with clinical activities (Koh, 2002).

Student engagement in the clinical environment will relate to the diversity of patient status and conditions, students will carry out experiential learning. The engagement of students in the clinical practice environment of the course is closely related to the role of students' clinical instructors to facilitate, encourage and support their reflective activities. Student engagement in clinical learning will help students to develop critical thinking, gain knowledge and increase self-confidence (Hudson, 2015). Supportive student-teacher relationships and by engaging nursing students into true interprofessionalism will enable students to assist in creating team work that is committed to increasing the team's responsibility for providing care, this experience will also create a sense of independence, autonomy, communication and collaboration, understanding increase team roles contributions by student (Hood et al., 2014).

The role of clinical instructors affects the engagement and satisfaction of nursing students, the research from Sundler et al., (2014) showed that the results showed that students generally had a positive experience in their clinical learning environment. The study showed that the organization of supervision was related to the pedagogical atmosphere (p 0.025) and the relationship with the supervisor (p 0.001). The role of the precept has an important influence on clinical practice, students have more satisfaction positive experiences regarding supervisory relationship and clinical placement, when they have a personal mentor than were those who had different preceptors each day. Support and care of the mentor will make nursing to patients better by being 'engaged' in making shared decisions. Students will be engaged in look for to improving the patient's clinical status, improving care, reduce length of stay and provide information during the patient's stay (Hudson et al., 2019). Faculty members and clinical instructors must act as role models and facilitate learning by providing an environment that promotes holistic care, inquiry, critical thinking, accountability, and more autonomous and professional behavior. Nursing students should seek educational opportunities to acquire knowledge for role preparation, to participate in knowledge generation, and for personal and professional development. The students can train their caring behaviors as long as in clinical practice (Mukhtar et al., 2016).

CONCLUSION

The engagement of nursing students is very important for their progress in their profession in the future, because the level of engagement will lead to various short-term and long-term learning outcomes. In nursing students, engagement in the learning process takes place in two environments, in the classroom and the clinical environment. Various studies on the engagement of nursing students showed a high level of engagement in the learning process, the level of that engagement influenced by various factors including students, student with other students relationship, teachers, student-teacher/clinical instructors relationships, learning strategies, learning methods and student relationships with the learning environment. Engagement will affect the learning process of students in the classroom and develop academic skills in a clinical environment so that it will have an impact on student learning outcomes.

REFERENCE

Abeysekera, L., & Dawson, P. (2015). Motivation and cognitive load in the flipped classroom: definition, rationale and a call for research. *Higher Education Research and Development*, 34(1), 1–14. https://doi.org/10.1080/07294360.2014.934336

Angelino, L. M., & Natvig, D. (2007). Strategies to Engage Online Students and Reduce Attrition Rates. *The Journal of Educators Online*, 4(2), 1–14.

Bergmann, J., & Sams A. (2011). Flipped Your Classroom. In *Journal of Physics A: Mathematical and Theoretical* (Vol. 44, Issue 8). https://www.rcboe.org/cms/lib/GA01903614/Centricity/Domain/15451/Flip_Your_Classroom.pdf

Berrett, D. (2012). How "Flipping" the Classroom Can Improve the Traditional Lecture. *The Chronicle of Higher Education*, *12*(9), 1–14.

Bond, M., & Bedenlier, S. (2019). Facilitating student engagement through educational technology: Towards a conceptual framework. *Journal of Interactive Media in Education*, 2019(1), 1–14. https://doi.org/10.5334/jime.528

Bowcock, R., & Peters, K. (2015). Nurse Education

- in Practice Discussion paper: Conceptual comparison of student and therapeutic engagement. *Nurse Education in Practice*, 2–5.
- https://doi.org/10.1016/j.nepr.2015.10.010
- Braxton, J., Milem, J. F., & Barbara, S. (2000). The influence of active learning on the college student departure process. *The Journal of Educators Online*, *August 2014*. https://doi.org/10.2307/2649260
- Busebaia, T. J. A., & John, B. (2020). Can flipped classroom enhance class engagement and academic performance among undergraduate pediatric nursing students? A mixed-methods study. *Research and Practice in Technology Enhanced Learning*, 15(1), 1–17. https://doi.org/10.1186/s41039-020-0124-1
- Cabrera, A. F., Nora, A., Crissman, J. L., Terenzini, P. T., Bernal, E. M., & Pascarella, E. T. (2002). Collaborative learning: Its impact on college students' development and diversity. *Journal of College Student Development*, 43(1), 20–34.
- Carini, R. M., Kuh, G. D., & Klein, S. P. (2006). Student Engagement And Student Learning: Testing the Linkages *. 47(1), 1–32. https://doi.org/10.1007/s11162-005-8150-9
- Carr, R. (2015). *Active learning: The importance of developing a comprehensive measure*. https://doi.org/10.1177/1469787415589529
- Casuso-Holgado, M. J., Cuesta-Vargas, A. I., Moreno-Morales, N., Labajos-Manzanares, M. T., Barón-López, F. J., & Vega-Cuesta, M. (2013). The association between academic engagement and achievement in health sciences students. *BMC Medical Education*, *13*(1). https://doi.org/10.1186/1472-6920-13-33
- Crookes, K., Crookes, P. A., & Walsh, K. (2013). Meaningful and engaging teaching techniques for student nurses: A literature review. *Nurse Education in Practice*, *13*(4), 239–243.
 - https://doi.org/10.1016/j.nepr.2013.04.008
- D'Souza, M. S., Isac, C., Venkatesaperumal, R., Nairy, K. S., & Amirtharaj, A. (2013). Exploring nursing student engagement in the learning environment for improved learning outcomes. *Clinical Nursing Studies*, 2(1), 1–16. https://doi.org/10.5430/cns.v2n1p1
- D'Souza, M. S., Venkatesaperumal, R., Radhakrishnan, J., & Balachandran, S. (2013). Engagement in clinical learning environment among nursing students: Role

- of nurse educators. *Open Journal of Nursing*, 03(01), 25–32. https://doi.org/10.4236/ojn.2013.31004
- Feingold, C. E., Cobb, M. D., Givens, R. H., Arnold, J., Joslin, S., & Keller, J. L. (2008). Student perceptions of team learning in nursing education. *The Journal of Nursing Education*, 47(5), 214–222. https://doi.org/DOI: 10.3928/01484834-20080501-03
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School Engagement Potential of The Concept. *Review of Educational Research*, 74(1), 59–109.
- Ghasemi, M. R., Moonaghi, H. K., & Heydari, A. (2020). Strategies for sustaining and enhancing nursing students' engagement in academic and clinical settings: A narrative review. *Korean Journal of Medical Education*, 32(2), 103–117. https://doi.org/10.3946/KJME.2020.159
- Groccia, J. E. (2018). *What Is Student Engagement?* 154, 11–20. https://doi.org/10.1002/tl.20287
- Hamptom, D., & Pearce, P. (2016). Student Engagement in Online Nursing Courses. *Nurse Educator*, 00(0), 1–5. https://doi.org/10.1097/NNE.0000000000000275
- Henriksen, N., Normann, H. K., & Skaalvik, M. W. (2012). Development and Testing of the Norwegian Version of the Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T) Evaluation Scale. *International Journal of Nursing Education Scholarship*, 9(1). https://doi.org/10.1515/1548-923X.2239
- Hood, K., Cant, R., Leech, M., Baulch, J., & Gilbee, A. (2014). Trying on the professional self: Nursing students' perceptions of learning about roles, identity and teamwork in an interprofessional clinical placement. *Applied Nursing Research*, 27(2), 109–114. https://doi.org/10.1016/j.apnr.2013.07.003
- Hudson, K., & Carrasco, R. (2015). Researching Nursing Students' Engagement: Successful Findings for Nursing. *International Journal* of Nursing & Clinical Practices, 2(1). https://doi.org/10.15344/2394-4978/2015/150
- Hudson, K., & Carrasco, R. (2017). Nursing Student Engagement: Taking a Closer Look.

- *Open Journal of Nursing*, *07*(02), 193–201. https://doi.org/10.4236/ojn.2017.72017
- Hudson, K. F. (2015). Nursing student engagement: Student, classroom, and clinical engagement. *International Journal of Nursing*, *4*(1), 45–52.
- Hudson, K., He, Z., & Carrasco, R. (2019). Nursing student engagement: Researching the journey and its potential impact on transitions to practice. *Preventive Medicine and Community Health*, 2(1), 1–6. https://doi.org/10.15761/pmch.1000121
- Kelly, C. (2007). *Student's perceptions of effective clinical teaching revisited*. 885–892. https://doi.org/10.1016/j.nedt.2006.12.005
- Koh, L. C. (2002). The perceptions of nursing students of practice-based teaching. *Nurse Education in Practice*, 2(1), 35–43. https://doi.org/10.1054/nepr.2002.0041
- Kuh, G. D. (2010). Assessing What Really Matters to Student Learning Inside The National Survey of Student Engagement. November 2014, 37–41. https://doi.org/10.1080/ 00091380109601795
- Lester, D. (2013). A review of the student engagement literature. *Focus on Colleges, Universities, and Schools, 7*(1), 1–8.
- Levett-Jones, T., Andersen, P., Reid-Searl, K., Guinea, S., McAllister, M., Lapkin, S., Palmer, L., & Niddrie, M. (2015). Tag team simulation: An innovative approach for promoting active engagement of participants and observers during group simulations. *Nurse Education in Practice*, *15*(5), 345–352.
 - https://doi.org/10.1016/j.nepr.2015.03.014
- Miller, C. J., & Metz, M. J. (2014). A comparison of professional-level faculty and student perceptions of active learning: its current use, effectiveness, and barriers. Dmd, 246–252.
 - https://doi.org/10.1152/advan.00014.2014
- Mohi-ud-din, A. (2019). Association Between the Use of Active Learning Strategies and Classroom Engagement Among Nursing Students. *Journal of Health, Medicine and Nursing, January*. https://doi.org/10.7176/jhmn/62-08
- Mukhtar, M., Nursalam, & Kurniawati, N. D. (2016). Perception Of Indonesian Nursing Students Regarding Caring Behavior And Teaching Characteristics Of Their Clinical Nursing Instructors. *Jurnal Ners*, 11(2), 186– 194.
- Nia Murniati, S. &Tri G. (2013). Pembelajaran

- Biostatistik Dengan Metode Kooperatif Melalui Media Lembar Kerja Mahasiswa (LKM) Di Program Program Studi Perumahsakitan Program Vokasi Universitas Indonesia.
- Oermann, M. H. (2015). Technology and Teaching Innovations in Nursing Education. *Nurse Educator*, 40(2), 55–56. https://doi.org/10.1097/NNE.0000000000000139
- Pascarella, E. I., Cruce, T., Umbach, P. D., Wolniak, G. C., Kuh, G. D., Carini, R. M., Hayek, J. C., Gonyea, R. M., & Zhao, C. M. (2006). Institutional selectivity and good practices in undergraduate education: How strong is the link? *Journal of Higher Education*, 77(2), 251–285.
 - https://doi.org/10.1353/jhe.2006.0016
- Popkess, A. M. (2010). The Relationship Between Undergraduate, Baccalaureate Nursing Student Engagement And Use Of Active Learning Strategies In The Classroom. Doctor of Philosophy, University Graduate School, January.
- Power, T., Virdun, C., White, H., Hayes, C., Parker, N., Kelly, M., Disler, R., & Cottle, A. (2016). Plastic with personality: Increasing student engagement with manikins. *Nurse Education Today*, 38, 126–131. https://doi.org/10.1016/j.nedt.2015.12.001
- Rahayu, A. S. (2018). Engaging the Students With Styles in Efl Perspectives. *A Journal of Culture English Language Teaching Literature & Linguistics*, 3(1), 15. https://doi.org/10.22219/celticumm.vol3.no 1.15-29
- Ryu, S., & Lombardi, D. (2015). Coding Classroom Interactions for Collective and Individual Engagement. *Educational Psychologist*, 50(1), 70–83. https://doi.org/10.1080/ 00461520.2014.1001891
- Sattar, A. A., Kouar, R., & Gillani, S. A. (2018). Exploring Nursing Students Engagement in Their Learning Environment. *American Journal of Nursing Research*, 6(1), 18–23. https://doi.org/10.12691/ajnr-6-1-3
- Schaufeli, W. B., Martínez, I. M., Pinto, A. M., Salanova, M., & Barker, A. B. (2002). Burnout and engagement in university students a cross-national study. *Journal of Cross-Cultural Psychology*, *33*(5), 464–481. https://doi.org/10.1177/0022022102033005 003
- Shernoff, D. J., Kelly, S., Tonks, S. M., Anderson, B., Cavanagh, R. F., Sinha, S., & Abdi, B. (2016). Student engagement as a function of

environmental complexity in high school classrooms. *Learning and Instruction*, 43, 52–60.

https://doi.org/10.1016/j.learninstruc.2015.1 2.003

Sundler, A. J., Björk, M., Bisholt, B., Ohlsson, U., Engström, A. K., & Gustafsson, M. (2014). Student nurses' experiences of the clinical learning environment in relation to the organization of supervision: A questionnaire survey. *Nurse Education Today*, *34*(4), 661–666.

https://doi.org/10.1016/j.nedt.2013.06.023 Svanum, S., Bigatti, S. M., Svanum, S., & Bigatti, S. M. (2014). Academic Course Engagement During One Semester Forecasts College Success: Engaged Students Are More Likely to Earn a Degree, Do It Faster, and Do It Better. 50(1), 120–132. https://doi.org/ 10.1353/csd.0.0055

Wang, Z., Bergin, C., & Bergin, A. (2014).

Measuring Engagement in Fourth to Twelfth
Grade Classrooms: The School Psychology
Quarterly Measuring Engagement in Fourth
to Twelfth Grade Classrooms: The
Classroom Engagement Inventory. April.
https://doi.org/10.1037/spq0000050