



## Systematic Review

# Nursing Students Engagement In The Classroom And Clinical Practice

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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. The purpose of this research is to identify and explore the engagement of nursing students in the classroom and in clinical practice.

**Methods:** This study used a systematic review design. This research used a database of indexed international journals such as Pubmed, Google Scholar, Science Direct, and BMC for the period 2011–2021 to search for research articles and analyze results using the PRISMA flow diagram. Research articles have been screened according to the inclusion criteria of this research, namely those containing student engagement or the engagement of nursing students in the classroom or clinical practice.

**Results:** We obtained 12 research articles. Nursing students' engagement in the learning process takes place in two environments: 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 is influenced by various factors, including students, a student's relationships with other students, teachers, student-teacher/clinical instructor relationships, learning strategies, learning methods, and student relationships with the learning environment.

**Conclusion:** The engagement of nursing students is important for their progress in their future profession because the level of engagement will lead to various short-term and long-term learning outcomes.

### ARTICLE HISTORY

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## INTRODUCTION

Learning can be referred to as a complete and continuous life process (Mohi-uddin, 2019). Students who are less active, less participating, less involved, and who lack initiative are common occurrences in learning activities. 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 et al., 2013).

Negative things like that often contribute greatly to the failure of students to take the course or the lack of student learning outcomes. For nursing students, this can affect the quality of their clinical practice in the field. Student learning outcomes can be increasingly 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 students' 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. Cognitive engagement relates to mental efforts such as the strategy used, concentration, and metacognition. Behavioral engagement it relates to student behavior that can be observed during learning, including time spent on tasks, active participation in the discussion, asking questions, 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 recommendations include that 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, and utilize informatics (Hudson, 2015). Engagement can help students become more independent thinkers and well-rounded 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, both in the classroom and in clinical practice. Students who have active engagement in both environments become more effective, current, and knowledgeable as they become engaged in 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, but this therapy is still not active enough. Student engagement in the classroom can be achieved by breaking students into various-sized groups that work on specific problem-solving tasks, re-viewing and critiquing required content articles, and/or organizing various types of presentations. While engaged in clinical practice, according to Midgley, (2006) students can be involved in responding to and dealing with unexpected and unplanned activities in clinical practice.

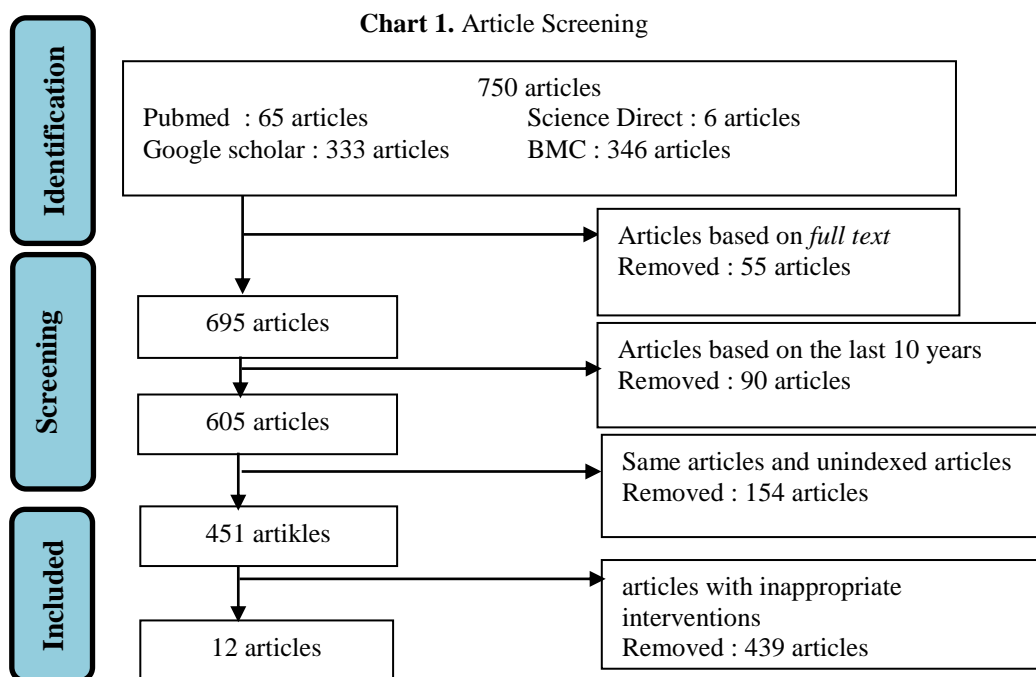
Learning opportunities in these clinical settings are predominantly experiential (Hudson, 2015). Based on this description, it is needed to analyze research articles about

"Nursing Students Engagement in the Classroom and Clinical Practice". The purpose of this research is to identify and explore the engagement of nursing students in the classroom and in clinical practice.

## MATERIALS AND METHOD

This study used a systematic review design. The article search strategy used a database of indexed international journals such as PubMed, Google Scholar, Science Direct, and BMC. In July 2021, researchers conducted a journal search with a maximum limit of 10 years of publication for research articles. Search for research articles using the keywords "nursing students," "student engagement," "classroom," and "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 that are only in abstract form, and articles that contain content 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, the title of the article, year of publication, methodology, and research results.



## RESULTS

**Table 1.** Research article review summary

<b>Title</b>	<b>Authors</b>	<b>Year</b>	<b>Methodology</b>	<b>Result</b>
Researching Nursing Students' Engagement: Successful Findings for Nursing	Kathleen Hudson and Rebecca Carrasco	2015	This study utilized a mixed methods approach, including both post-intervention Likert scale quantitative questionnaire and 4 brief open-ended qualitative questions. The tool used, Student Engagement Questionnaire, seeks to assess the level of student engagement within their formal studies. Participants in this study were lever two nursing student enrolled in a psychiatric nursing course during the fall of 2014 and spring 2015 semesters, consisting of 44 respondents who agreed to participate in this study.	The results of the research from the Student Engagement Questionnaire data show 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. Students respond that the course activities help them understand patient care in the real world of nursing and can combine classroom and clinical content to learn how to apply the content. This course activity also makes students more prepared to deal with patients directly in clinical practice, students become better prepared and understand better how to approach openly with therapeutic communication, how to respond to patients and more confidently.
Nursing student engagement: Researching the journey and its potential impact on transitions to practice	Kathleen Hudson, Zhaomin He and Rebecca Carrasco	2019	The study used a Student 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	The results showed that students had a high average on the engagement of each subscale or overall with an average score of 3.88 to 4.49. The results also showed a significant difference between the engagement of level 2 and 4 students

<b>Title</b>	<b>Authors</b>	<b>Year</b>	<b>Methodology</b>	<b>Result</b>
			average. Statistical analysis tests used independent samples Mann-Whitney's and Kruskal-Wallis tests to test for differences and student engagement.	(p=0.013). Students reported high results on teamwork and collaboration, as well as 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 care of the mentor in clinical practice will make nursing to patients better by being 'engaged' in making shared decisions..
Nursing Student Engagement: Taking a Closer Look	Kathleen Hudson and Rebecca Carrasco	2017	This study used a sample of nursing students level 2 and 4. The instrument used was the Student Engagement Questionnaire which consisted of 35 questions and was followed by two open-ended questions to identify the level of student engagement during the nursing course. Analyses including descriptive, statistical factorial ANOVA, and qualitative review were utilized when comparing results.	There are quantitative findings in this study, it was found that students have high engagement on campus. Intellectual aspect showed a significant interaction effect (p=0.037). In the aspect of working together, it showed that student engagement is high and the same at every level and campus. In the teaching aspect, it showed a significant effect (p = 0.005). The teacher-student relationship showed a significant difference in smaller campuses (p=0.008) with a lower difference at level 4. In general, it showed that the level of engagement and satisfaction of students was high with the campus teaching/learning environment.
Exploring Nursing Students Engagement in Their Learning	Amna Abdul Sattar, Rubina Kouar, Syed	2018	This study used a cross-sectional quantitative research design. The research sample was 135 from the Lahore School of	The results of this study showed that from the 3 domains student engagement (Meaningful process (3.75±),

<b>Title</b>	<b>Authors</b>	<b>Year</b>	<b>Methodology</b>	<b>Result</b>
Environment	Amer Gillani		Nursing at the University of Lahore using the Student Engagement Questionnaire (SEQ) instrument developed by David Kember and Doris Leung. Statistical analysis tests used descriptive statics, Pearson correlation, and regression analysis.	Participation (3.35±) and Focused attention (3.25±) had a high average score. The three sub-domains also have a positive correlation, where if one sub-domain increases, it will have a positive effect on the other sub-domains. All domains of student engagement are very important for student nurses in the classroom as well as in the clinical practice setting. The research also student engagement in this study did not show a significant relationship to GPA scores, but it is necessary that students with low GPAs will usually try to be more involved in learning so that subsequent results will be better.
Exploring nursing student engagement in the learning environment for improved learning outcomes	Melba Sheila D'Souza, Chandrani Isac, Ramesh Venkatesaperu mal, K Subrahmanya Nairy, Anandhi Amirtharaj	2014	This study used an exploratory cross-sectional research design. The sample used was 250 nursing students. The instrument used is the Student Engagement Questionnaire (SEQ). Analysis of the data in this study using NVivo software program to analyze the responses open and look for the code that appears significantly in the encoding analytically. Thematic content analysis and constant comparison techniques were also carried out to draw conclusions from the text	The results showed that from all subdomains of student engagement (SE), 48%-68% of students had a high average score. Students have engagement at various levels such as with peer groups, faculty and in academic and clinical work to improve cognitive, emotional and behavioral learning and academic performance. Increasing the engagement of nursing students in the classroom can be done by using active learning in the classroom, discuss in small groups, and teachers who facilitate active. In a

<b>Title</b>	<b>Authors</b>	<b>Year</b>	<b>Methodology</b>	<b>Result</b>
				clinical environment, students prefer to develop behavioral competence through independent practice, the ability to seek knowledge and appropriate information.
Association Between the Use of Active Learning Strategies and Classroom Engagement Among Nursing Students	Anam Mohi-ud-Din, Muhammad Hussain, Muhammad Afzal Syed and Amir Gillani	2019	This study used a correlational, descriptive, cross-sectional design. The sample used was 177 nursing students. The instruments used for data collection are Active Learning Environments Scale (ALES) and Adapted Engaged Learning Index (AELI). Data analysis using Descriptive statistics and inferential statistics.	The results 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.
The association between academic engagement and achievement in health sciences students	Maria J Casuso-Holgado, Antonio I Cuesta-Vargas, Noelia Moreno-Morales, Maria T Labajos-Manzanares, Francisco J Barón-López and Manuel Vega-Cuesta	2013	This study used a cross-sectional research design and involved 304 health science students who were asked to fill out the Utrecht Work Engagement Scale for Students (UWES-S) instrument. Data analysis used descriptive statistics and the main analysis was guided towards a search for the correlations.	The results 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 ( $r<0.3$ ).
Strategies for sustaining and enhancing nursing students'	Mohammad Reza Ghasemi, Hossein Karimi Moonaghi and	2020	The method used is a non-systematic narrative literature review. Scientific articles were collected from the CINAHL database (nursing content), ProQuest,	The results showed that there were five categories of teaching strategies to promote the engagement of nursing students. the main categories include

<b>Title</b>	<b>Authors</b>	<b>Year</b>	<b>Methodology</b>	<b>Result</b>
Engagement in academic and clinical settings: a narrative review	Abbas Heydari		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 articles.	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.
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	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 pre-class activities, self-paced video lectures, and post-class activities provides a very effective way for students to understand learning materials.
Engagement in clinical learning environment among nursing students: Role of nurse educators	Melba Sheila D'Souza, Ramesh Venkatesaperu mal, Jayanthi Radhakrishnan,	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



Title	Authors	Year	Methodology	Result
	and Shreedevi Balachandran			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.
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

Title	Authors	Year	Methodology	Result
Student nurses' experiences of the clinical learning environment in relation to the organization of supervision: A questionnaire survey	Annelie J. Sundler, Maria Björk , Birgitta Bisholt , Ulla Ohlsson, Agneta Kullén Engström, and Margareta Gustafsson	2013	Research method using A cross-sectional with comparison design with a mixed method. The sample used 183 nursing students to fill out the Clinical Learning instrument Environment, Supervision and Nurse Teacher (CLEs + T). Data analysis using Kruskal-Wallis test and Mann-Whitney U-test.	<p>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.</p> <p>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 and positive experiences regarding the supervisory relationship and clinical placement, when they have a personal mentor than were those who had</p>

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<b>Title</b>	<b>Authors</b>	<b>Year</b>	<b>Methodology</b>	<b>Result</b>
				different preceptors each day.

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## **DISCUSSION**

Based on a literature review of 12 research articles that have been analyzed, it appears that, in general, there is a high level of engagement among 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 the learning process.

### **Engagement**

Engagement is active learning, which is very interactive and problem-oriented, and encourages participation and contribution from everyone involved, where the higher the level of engagement, the more information, and understanding students will have (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) according to which engagement is a multifaceted construction consisting of several components that are interconnected by the importance placed on their relationship to one another (Fredricks et al., 2004). Engagement is also defined 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 the energy and effort of students in their learning community, which can be observed through several indicators (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, 2019). In addition, 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, cognitive engagement, and emotional engagement (Ryu & Lombardi, 2015). Behavioral engagement refers to student behavior that can be observed during learning, including time-on tasks, active participation in the discussion, asking questions, and any other positive behavior in the classroom. Cognitive engagement relates to mental efforts 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 and Carrasco, (2015) that showed that from

the Student Engagement Questionnaire data, in the aspects of self-managed learning, relationships with other students, the 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, according to Hudson et al., (2019) students had a high average of engagement in each subscale or overall, with a score ranging from 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 (3.75±), participation (3.35±) and focused attention (3.25±)) had a high average score, and research from D'Souza et al., (2013) found that from all subdomains of student engagement (SE), 48%-68% of students had a high average score. Nursing students who have the opportunity to learn together and think about the subject matter are more deeply engaged than other students in conventional courses using rote 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 how student engagement is related to academic achievement, where the higher the student engagement, the higher the student's academic value. 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 by 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, and besides, students will get a higher GPA.

Another study by Sattar et al., (2018) showed the opposite result: 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 shows 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 improved (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 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 engagement in the school environment, where it will be seen in the engagement of students in their participation in extracurricular activities, attendance, and 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) which found that in the classroom, student engagement can be achieved by solving certain problems in small groups, critiquing content articles and 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.

This is in line with research by D'Souza et al., (2013) that students prefer to discuss in small groups to help their critical thinking and 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. Students' perceptions of effective learning revealed 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).

According to students, teachers have a good relationship with students in teaching and are willing to help students, even provide extra help if needed, accommodate student consultation, and make students 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. The 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 assignments outside classroom settings, teaching peers, working on a community-based project, and discussing course material with people outside of 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, which shows a significant difference showing an increase in student engagement with the flipped classroom method ( $p 0.001$ ).

The 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 a better understanding of concepts and applications in clinical practice, and 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 them more active in the learning process. In addition to being technology-based, students are more interested in simulation-based techniques such as simulation with manikins and tag team simulation.

Simulation-based techniques are an effective procedure to increase the engagement of nursing students Power et al., (2016), and 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 them to get more reading done and learn 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 be maintained and promoted in this online class because teachers cannot see the students who participate directly.

The research from Hampton & 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 relationship between technology and 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 learning outcomes frequently, and posting course updates (Foronda, 2014).

According to Conrad and Donaldson, (2012) the success of online-based classes that utilize 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 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. The significance of practice regarding the development of clinical skills and the integration of theory and practice is widely recognized Midgley, (2006), as is its impact on students' choices 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. Research conducted by D'Souza, et al., (2013) showed that students preferred to be engaged in a clinical practice environment through several things, including diverse experiences, collaborative learning opportunities, student-faculty interactions, and active learning. Diversity experiences such as being engaged in handling various cases or problems, engaging in discussions with colleagues, and attending various clinical events are unique learning opportunities in a clinic that is rich in cultural diversity.

Second, collaborative learning opportunities are provided through case scenarios, evidence-based practice, e-learning, portfolio studies, and simulations to encourage students to think deeply about the cases presented. Various studies have documented the positive impact of collaborative learning on student engagement and development (Cabrera et al., 2002). Third, student-faculty interactions and nurse educators in this case are helping students to improve clinical problem-solving skills, facilitate intellectual progress, and increase clinician satisfaction.

The last is active learning, in a clinical environment, such as conducting comprehensive care, writing case studies, engaging in 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. Nurse educators can encourage student participation in clinical activities by utilizing active learning strategies, teaching for learning, and clinical practice coherence combined 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 clinical instructors to facilitate, encourage, and support their reflective activities. Student engagement in clinical learning will help students to develop critical thinking skills, gain knowledge, and increase their self-confidence (Hudson, 2015).

Supportive student-teacher relationships and engaging nursing students in true interprofessional work will enable students to assist in creating teamwork 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 and increase the student's understanding of team roles and contributions (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 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 preceptor has an important influence on clinical practice. Students have more satisfaction and positive experiences regarding the supervisory relationship and clinical placement when they have a personal mentor than those who have different preceptors each day. The mentor's support and care will improve nursing care for patients by getting them "engaged" in making shared decisions.

Students will be engaged in looking for ways to improve the patient's clinical status, improve care, reduce the 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, participate in knowledge generation, and develop personally and professionally. The students can train their caring behaviors as long as they are 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. Nursing students participate in the learning process in two settings: the classroom and the clinical setting. Several studies on nursing student engagement revealed a high level of engagement in the learning process.

The level of that engagement is influenced by various factors, including the following: students, a student with other students, teachers, student-teacher/clinical instructor 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 it will have an impact on student learning outcomes.

## REFERENCES

- Abeyssekera, 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.rcooe.org/cms/lib/GA01903614/Centricity/Domain/15451/Flip\\_Your\\_Classroom.Pdf](https://www.rcooe.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. <http://web.ebscohost.com/proxy/lib.pdx.edu/ehost/pdfviewer/pdfviewer?sid=cfd0e2c7-a51a-4a8f-980e-96232c36538e%40sessionmgr4&vid=2&hid=20>
- 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/10.3928/01484834-20080501-03>
- Foronda, C. (2014). Spice Up Teaching Online! *Ners Educator Trchnology Corner*, 39(6), 265–266. <https://doi.org/10.1097/NNE.0000000000000081>

- 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 Studi Perumhaskitan 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.no1.15-29>

- 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/10.1177/0022022102033005003>
- 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.2015.12.003>
- 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>