Classroom Engagement among Nursing Students at Faculty of Nursing Suez Canal University

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Abstract

Background: classroom engagement of students in the classroom can be maintained by reinforcing students' perception of competence, providing emotional support and encouragement throughout the learning process. Aim of the study: It aimed to assess classroom engagement of nursing students at Faculty of Nursing in Suez Canal University. Material and method a descriptive research design was used in the study that was carried out at Faculty of Nursing in Suez Canal University on 272 students at academic year 2020-2021 using questionnaire assessing their personal data and classroom engagement. Results: the total students classroom engagement mean percentage was 57.5 %, the educational practices got the highest mean percentage 74.8 % followed by class climate 69.4 %, engagement activities 51.9 % and finally cognitive skills with mean percentage 41.0 %. Conclusion: the majority of students’ classroom engagement was average. Recommendations: developing and validating guidelines to enhance students' classroom engagement and replicating the previous study on large sample size and various study setting recommended for further studies.

Keywords: Nursing students, Classroom engagement.
Introduction

Classroom social environment involves two dimensions of educators support; emotional and academic as well as educator-promoted student social interaction and mutual respect. Classrooms with a positive social environment tend to foster students sense of belongingness, enjoyment, enthusiasm and respect towards others. Educators emotional support refers to students perception that the educator cares about them and likes them as a person, whereas educator academic support refers to student’s perception that the educator cares about how much they learn and wants to help others to learn. When students perceive educators as highly supportive and have mutual positive relationships, they are more likely to be engaged in faculty and do better academically (Hastings & Kane, 2018).

Students classroom engagement can be defined also as the level of participation and intrinsic interest that a student’s shows in faculty. Engagement in faculty work involves both behaviors such as persistence, effort and attention, and attitudes such as positive learning values, enthusiasm, interest and pride in success. Thus, engaged students seek out activities inside and outside the classroom that lead to success in learning. They display curiosity, a desire to know more and positive emotional responses to learning at faculty (Gkolia et al., 2018).

Students classroom engagement is divided into three dimensions as follows; Emotional engagement refers to students personal attachments to the faculty and relationships with other students and educators. Emotional engagement is comprised of students attitudes, interests and values particularly related to positive or negative interactions with faculty, staff, students, academics and the institution (Northouse, 2021).

Behavioral engagement refers to student’s participation in learning and classroom activities. Behavioral engagement consists of student’s involvement in academic and social activities. Three main categories of behavioral engagement include positive conduct, involvement in learning and academic tasks and participation in faculty related activities (Hampton et al., 2020).

Cognitive engagement refers to student’s behaviors that reflect their thinking in terms of dedication which combines both ideas and willingness to take action. Cognitive engagement is divided into two components; psychological and cognitive (Huda et al., 2018).
There are three aspects of engagement including; **Engagement with the content:** The emphasis on individual study and the Readiness Assurance Process encourages students to engage with the content of the course. Mastering the content is essential as classroom activities and problem solving are based on the content (Aboramadan et al., 2020).

Engagement with other learners: The various activities seem to be especially effective in providing opportunities for students to engage with other learners. The team-testing process is a major contributor to this engagement. With a portion of the grade assigned to team performance, it is vital that team members become engaged with each other's in order to assure a good grade on the team (Cansoy & Parlar, 2018).

Engagement with the educators: The Readiness Assurance Process seems to provide students an opportunity to engage with the educators about difficult aspects of the content. Questions about difficult content seem easier to raise when they come from a team rather than from an individual sitting in a lecture hall (Berkovich, 2018).

Students classroom engagement is a way to meliorate low levels of academic achievement, high levels of students boredom and disaffection. Students classroom engagement in classroom activities also fosters greater gains in students' academic, emotional, social and behavioral achievement (Beaulieu et al., 2018).

Student’s classroom engagement is also highly correlated to learning and personal development when students are engaged during their learning at faculty, a positive attitude towards learning is instilled. Students will enjoy their lectures and appreciate the content taught. The act of being engaged teaches students other essential skills such as communication and cooperation. These skills enlarge their capacity for continuous learning and personal development. Moreover, engagement in the classroom enables students to build their confidence about their ability to learn new material, earn higher grades, score higher on standardized tests and show better personal adjustment to faculty (Baker et al., 2019).

The researcher when he was student observed that lack of students participation in the classroom. Also, there are few studies evaluate the classroom engagement of nursing students. So, this study aimed to compare classroom engagement among nursing students at Faculty of Nursing in
Suez Canal University.

Objectives:

- Identify personal characteristics of nursing students at Suez Canal University.
- Assess classroom engagement among nursing students at Suez Canal University.

1. Subjects and Methods

Research Design:
A descriptive design was used to conduct this study.

Setting of the study:
This study was conducted at Faculty of Nursing in Suez Canal University. It has been established in 2006 and it follows Problem Based Learning (PBL) strategies and was accredited on 19-7-2017. It was included two buildings namely; the educational building and the administrative building. There are six different scientific nursing departments namely; Nursing Administration, Medical Surgical Nursing, Psychiatric and Cognitive Health Nursing, Obstetric and Gynecological Nursing, Pediatric Nursing and Community Health Nursing.

Subjects

Target population

738 faculty students who were affiliated to bachelor program at 2020-2021 academic year were included in this study.

Sample size

The study sample included 272 out from 738 faculty students from the four different academic years according to the following equation (Yamane, 1979).

\[
n = \frac{N}{1+N_e^2}
\]

\(n\) = Sample size
\(N\) = Total population
\(e\) = Error=0.05

Sampling technique

Simple random sampling technique was used to select students from each academic year.

Tools of data collection

A questionnaire sheet was used for data collection. It is divided into two main parts:

Part (1): This part included personal characteristics of students including age, gender, academic year, pre-education before faculty admission and cause of faculty admission.

Part (2): It developed by Chickering and Gamson (1987), modified by Ouimet and Smallwood (2005) and adopted from
Hamed (2016). It consisted of 36 items divided into 4 categories such as engagement activities (19 items), cognitive skills (5 items), educational practices (8 items) and class climate (4 items).

Data collection
Data were collected from faculty students in three months from the beginning of October, 2020 to the end of December, 2020. The researcher met the students in their classroom and explained the aim of the study and seek their participation. Data were collected between lectures and students complete questionnaire at the same time of distribution through 20-30 minutes. The researcher checked each questionnaire sheet after being completed to ensure its completion.

Ethical considerations
Approval letter from scientific research ethical committee was obtained for collecting data and an informed consent from participants were obtained, from faculty members and students after explanation of the nature and the aim of the study. They were given an opportunity to refuse or to participate and they were assured that the information would be utilized confidentially and used only for the research purpose.

Data analysis
The collected data were coded, entered and analyzed using Statistical Package for the Social Sciences (SPSS, version 20). Data were presented using descriptive statistics in the form of frequency, percentage, mean, standard deviation and inferential statistics using non parametric tests including Mann-Whitney U test, Kruskal-Wallis test and spearman rank correlation test was used. Significance level was considered when P value < 0.05 and When P value < 0.01, the significance level considered high.

2. Results
Table (1) shows that nearly half (44.5%) of students their ages were ranged from 18 to less than 20 years old. Three quarters of them were female (75.0%). Concerning academic years, more than one quarter (30.9%) of the them were in the 1\textsuperscript{st} academic year. In addition that, the majority (86.8%) of them had secondary education before faculty admission.

Table (2) reveals that nearly half (49.7%) of students had average classroom engagement level regarding engagement activities. Also, two third (62.1%) of them had low classroom engagement level regarding cognitive skills. As well as, most of them (72.8%) of had high classroom engagement level regarding educational.
practices. And also, most of them (68.0%) had average classroom engagement level regarding class climate.

**Figure (1)** shows that the majority of faculty students had average classroom engagement level.

**Table (3)** shows that there were highly statistically significant differences between student's age and their classroom engagement with P value 0.001.

**Figure (2):** Shows that the student' engagement lied under the average with 94.1% of the students' scores lied under the average score at 1st, 2nd, 3rd, 4th year with percentage 92.7%, 97.4%, 97.4% and 98.5% respectively.

**Discussion**

The aim of this study was to assess the classroom engagement among nursing students at Suez Canal University. Regarding personal characteristics of faculty students, the current study showed that nearly half of them their age ranged from 18 to less than 20 years old. Most of them were female. Concerning academic years, more than quarter of the students were in the first academic year. In addition that, the majority of them had secondary education before faculty admission.

This result is in agreement with **Lancaster & Lundberg (2019)** who conducted a study entitled "The Influence of Classroom Engagement on Community College Student Learning" and found that the majority of college students were female and had secondary education before faculty admission. Conversely, this result is in disagreement with **Kaur et al., (2019)** who conducted a study entitled "Students Experiences of Co-creating Instruction with Faculty Case Study in Eastern" and found that more than half of students were not in the first academic year.

Regarding faculty students classroom engagement, the current study showed that majority of the students classroom engagement had average level. This result may be due to that the students were interested with their activities in the faculty and highly participated in these activities.

This result is accordance with **Wilson (2018)** who conducted a study entitled "The Impact of Leadership Behaviors on Student Engagement" and found that the majority of students classroom engagement was average. Conversely, this result is in disagreement with **Metin (2019)** who conducted a study entitled "Exploring the Relationship between the Middle School Students"
Interaction with their Educators and their Classroom Engagement and Success" and found that the majority of students classroom engagement was not average.

Regarding relation between personal characteristics of faculty students and their classroom engagement, the current study showed that there were highly statistically significant differences between age, academic year and their classroom engagement. This result is in agreement with Paulsen & McCormick (2020) who conducted a study entitled "Reassessing Disparities in Classroom Learner Student Engagement in Higher Education" and found that there were highly statistically significant differences between personal characteristics of students and their classroom engagement. Also, this result is supported with Douglas & Rabinowitz (2016) who conducted a study entitled "Examining the Relationship between Faculty Members Collaboration and First Year Students Engagement" and found that there were highly statistically significant differences between personal characteristics of students and their classroom engagement.

3. Conclusions

In the light of the study findings, it can be concluded that the majority of students classroom engagement was average. With regard to classroom engagement dimensions; the majority of students scored high educational practices, More than two third of them scored average class climate, about two third of them scored low cognitive skills and about half of them scored average engagement activities. There was statistically significant relation between student's age and academic year and their classroom engagement.

4. Recommendations

- Creating an educational environment that values educator-student relationship.
- Providing educational activities that increase the students classroom engagement such as flipped classroom that is effective than traditional methods.
- Conducting periodical counseling sessions to help students verbalize their emotions about their academic environment and respect student’s opinions, concerns and suggestions.

Recommendations for future studies

- Replicating the previous study on large sample size and various study setting recommended for further studies.
- Developing and validating guidelines to enhance students classroom engagement.
- Studying the factors affecting students classroom engagement.

5. Acknowledgements

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I am also grateful to Dr. Nadia Mohamed EL-Sayed, Assistant Professor of Nursing Administration, Faculty Of Nursing, Suez Canal University for her meticulous supervision, and guidance that she offered me throughout this work.
Table (1): Personal characteristics of faculty students (n=272).

<table>
<thead>
<tr>
<th>personal characteristics of nursing students</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18:&lt;20</td>
<td>121</td>
<td>44.5</td>
</tr>
<tr>
<td>20:&lt;22</td>
<td>75</td>
<td>27.6</td>
</tr>
<tr>
<td>≥22</td>
<td>76</td>
<td>27.9</td>
</tr>
<tr>
<td>Mean ± SD</td>
<td>20.11±1.60</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>68</td>
<td>25.0</td>
</tr>
<tr>
<td>Female</td>
<td>204</td>
<td>75.0</td>
</tr>
<tr>
<td>Academic year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First</td>
<td>84</td>
<td>30.8</td>
</tr>
<tr>
<td>Second</td>
<td>57</td>
<td>21.7</td>
</tr>
<tr>
<td>Third</td>
<td>62</td>
<td>22.1</td>
</tr>
<tr>
<td>Fourth</td>
<td>69</td>
<td>25.4</td>
</tr>
<tr>
<td>Pre-education before faculty admission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Institute of Nursing</td>
<td>36</td>
<td>13.2</td>
</tr>
<tr>
<td>Secondary</td>
<td>236</td>
<td>86.8</td>
</tr>
</tbody>
</table>

Table (2): Mean scores of classroom engagement of faculty students (n=272).

<table>
<thead>
<tr>
<th>Students engagement dimensions</th>
<th>Classroom engagement levels</th>
<th>Low &lt;50%</th>
<th>Average 50%-75%</th>
<th>High &gt;75%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement activities</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Cognitive skills</td>
<td>169</td>
<td>62.1</td>
<td>99</td>
<td>36.4</td>
</tr>
<tr>
<td>Educational practices</td>
<td>3</td>
<td>1.1</td>
<td>71</td>
<td>26.1</td>
</tr>
<tr>
<td>Class climate</td>
<td>3</td>
<td>1.1</td>
<td>185</td>
<td>68.0</td>
</tr>
</tbody>
</table>
Figure (1): Total classroom engagement scores of faculty students (n=272).

Table (3): Relation between personal characteristics of faculty students and their classroom engagement.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total classroom engagement</th>
<th>Mean±SD</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18&lt;20</td>
<td></td>
<td>84.85±10.63</td>
<td>0.001 $</td>
</tr>
<tr>
<td>20&lt;22</td>
<td></td>
<td>82.74±8.94</td>
<td></td>
</tr>
<tr>
<td>≥22</td>
<td></td>
<td>79.34±4.35</td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>82.11±7.98</td>
<td>0.486 *</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>82.93±9.42</td>
<td></td>
</tr>
<tr>
<td><strong>Pre-education before faculty admission</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Institute of Nursing</td>
<td></td>
<td>81.36±7.94</td>
<td>0.323 *</td>
</tr>
<tr>
<td>Secondary</td>
<td></td>
<td>82.94±9.23</td>
<td></td>
</tr>
</tbody>
</table>

P-value is significant ≤ 0.05  * Mann-Whitney U test  $ Kruskal-Wallis
Figure 2: Percentage distribution of faculty students' total classroom engagement ($n=272$)
6. References


online setting. *Online Learning*, 22(1), 107-129.


**Wilson, J. (2018).** *The Impact of Leadership Behaviors on Student Engagement*. Dallas Baptist University.

**Yamane, H. (1979):** Identification of gibberellin A 9 methyl ester as a natural substance regulating formation of reproductive organs in *lygodium japonicum*; *planta* 147(3):251-256.