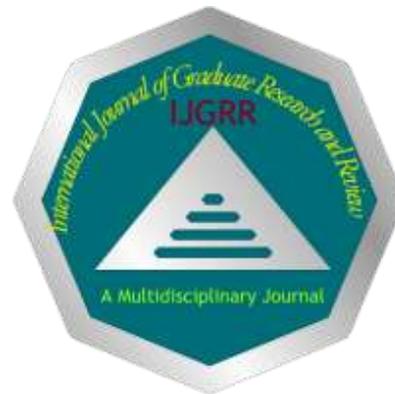


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## Readiness for Self-Directed Learning among Nursing Students in Lahore, Pakistan

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### Abstract

**Background:** Self-directed learning is an inherent potential utilized by person at different degree during their life while come across a new testing and challenging circumstances. Self-learning is important for people to live in the state of advancement. **Objectives:** This study was conducted to assess the readiness for self-directed learning among nursing students in Lahore, Pakistan. **Methodology:** This was descriptive cross-sectional study with 133 sample sizes. All male and female nursing students of (2-years BSN Post RN) and (4-years BSN Generic) degree programs were included in this study. Convenient sampling method was used. Data was analyzed using software Statistical Package for Social Sciences (SPSS) version 21. Ethical clearance was obtained before research. Independent t-test was carried out to check the difference between male and female. ANOVA test was applied to compare the SDLR of students from different academic years. **Results:** The overall mean score for self-directed learning readiness was  $158.57 \pm 17.64$ , the mean score for self-management was  $49.79 \pm 6.61$ , the mean score for desire for learning and self-control was  $47.80 \pm 5.75$  and  $60.98 \pm 7.83$  respectively. Students have adequate level for SDL. According to Fisher's 40 items the score 150 and above is acceptable level for self-directed learning. **Conclusion:** Mostly nursing students were ready for self-directed learning but it depends on the students' academic years. Final years students were readier toward self-directedness than junior students. Nurse educators promote the SDL skills among students by identifying strengths and weaknesses of students.

**Keywords:** Self-directed learning; Readiness; Lahore; BSN Post RN degree program; BSN Generic degree program.

### Introduction

Self-directed learning (SDL) is a teaching-learning method in which an individual learn with or without the assistance of others, assess their learning needs, set learning objectives, arrange resources and evaluate learning outcomes (Cazan & Schiopca, 2014). Self-directed learning is an inherent potential utilized by person at different degree during their life while come across a new testing and challenging circumstances (Prabjanee & Inthachot, 2013). Self-learning is important for people to live in the state of advancement (Knowles, 1975). Readiness for self-directed learning is the level of willingness, abilities of the students to freely participate in self-study and learning (El-Gilany & Abusaad, 2013).

### Background

The history of Self-directed learning, started from the earlier times of Greek's philosophers, but from the last three decades it has become vast research area (Hiemstra, 1994). Developed countries like United States (US), most learning organizations focused on self-directed learning in which students recognized their own learning needs to achieve their goals. Simultaneously research work has started in developing regions of the world like Asia (Kranzow & Hyland, 2016). Self-directed learning have determinants like self-management, desire for learning, self-control, which enhances problem solving skills, decision making, critical thinking, motivation and responsibility (Yuan, Williams, Fang, & Pang, 2012). Moreover, improving self-

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management skills especially time management and planning skills, students become organized and systematic in their study. Self-directed learning will create deep understanding of learning and better memorizing of content. Then students will work autonomously, self-directed and without the fear of others (Soliman & Al-Shaikh, 2015). In self-directed learning, students learn autonomously. Work independently which is important part of learning and essential for curriculum. This improves knowledge, practices and skills of students. This is considered as an integral part for the readiness of self-directed learning to meet the challenges and become confident (Kovalenko & Smirnova, 2015).

However, Egizii (2015) conducted a study that learning motivation or passion of learning are the important factors, which influence the students to learn with enthusiasm, enjoy study and become a good self-directed learner for future. Students utilize these learning practices in giving the best care to the patient (Egizii, 2015). Readiness for self-directed learning (SDL) enhances the self confidence in nursing students as well as increase their desire to learn in new circumstances (El-Gilany & Abusaad, 2013). Through self-directed learning, nursing students become self-disciplined, achieve success in their careers and involve in gaining of knowledge for life-long learning. So, students will be confident and organized in their studies (Cheng *et al.*, 2010). Self directed learning is lifelong learning. Student's desire to learn new information and motivation enhances long term learning. The research results revealed that intervention in education like introducing self-directed learning, improve student's academic performance and GPA. The long term learning influenced the student to work hard and smart over years (Dweck *et al.*, 2014). Siritwongs (2015) found that people should take control of their own learning and should be open to learn new things from different sources. In this way self-directed learning influence good decision-making skills. These all are parts of andragogy or self-study. Those people who have well decision-making abilities and manage their work independently are more ready for self-directed learning.

Furthermore, all individuals who are motivated, openness to learning and intelligence are capable of self-directed learning. This will increase confidence and academic achievement of the students (Cazan & Schiopca, 2014). Mostly students have less ability of critically thinking and evaluating their goals. For the betterment of nursing students professional programs related to critical thinking must be initiated for educators. So, student improve their acquisition of critical thinking and become self-directed learner (Boso & Gross, 2015). Moreover, learner who are more competent in decision-making and take accurate action to solve the problem in a systematic way are initiar for self reliant study. These skills encourages the students to become self-disciplined and organized in learning

(Malcolm *et al.*, 2014). Self-control of learning is the essential feature of andragogy in which leaner set personal standards and learning goals then achieve it with responsibility and evaluate self-performance. As a result, learner focus on a problem with knowing own limitations, abilities and ready toward self-directedness (Avdal, 2013). Fein (2014) revealed that students who are motivated for learning their performance will be better in future and they will become independent and good self-directed learner. Students will work independently without any hesitation of others (Fein, 2014). Furthermore, in nursing profession students enter with professional training, learn from mistakes, continually up to date their knowledge and skills through self-reliant abilities. This encourage students to become independent in study (Murad *et al.*, 2010). Pakistan, as many other countries of the world, yet confronting changes in both the health care and academic system. Current patterns in training and education highlighted that undergraduates get new skills and practices so, they could become lifelong learner (El-Gilany & Abusaad, 2013).

## Significance of Research

- The study findings will help the policy maker in the development of student centered nursing curriculum then students will become more active for learning.
- These study findings will help the organization to develop strategies like educational guidance, boost confidence and motivation to promote self-directed learning among nursing students. Help the students to set small achievable goals that can be achieved quickly to increase students' self-directed learning abilities. Research study will be beneficial for organization to improve the quality of learning with student's encouragement which will enhance organizational prestige.

## Research Objectives

1. To assess the readiness for self-directed learning among nursing students in Lahore, Pakistan.
2. To check the difference in all subscales of self-directed learning readiness in relation to age, gender and academic years.
3. To assess the level of self-directed learning readiness with age, gender and academic years.

## Research Questions

1. Are nursing students ready for self-directed learning in Lahore, Pakistan?
2. What difference exists in subscales of self-directed learning in relation to age, gender and academic years?
3. What are the levels of self-directed learning readiness in relation to age, gender and academic years?

## Conceptual Framework

Fig. 1 shows Garrison Model of Self-directed learning integrated three dimensions. Self-Management (contextual control), Desire for learning (Motivation) and Self-Control (Self-Monitoring, cognitive responsibility) (Garrison, 1997).

Self-directed learning depends on self-management in which nursing students use good managing skills to make a plan for solving a problem, prioritize the work according to time management and work in a systematic way. In this model, desire for learning relates to self-directed learning by setting tasks for leaning new information, learn from mistake and critically evaluate the new concepts by self-learning. Motivation plays vital role in initiation of gaining fresh knowledge and making effort towards learning and practices. Self- directed learning readiness focuses on self-control by which nursing students focus on a problem. Set own learning goals, limitations and evaluate own learning performance with responsibility.

## Literature Review

Self-directed learning has become focus for nursing students from few decades due to changes and development in nursing profession. The result finding revealed that above average (77%) students are ready for self-directed learning. The average scores were 51.3, 48.4 and 59.43 respectively, for self-management, desire for learning and control on self. This high level of readiness will show a positive impact on education (El-Gilany & Abusaad, 2013). Mostly, senior students have high level of readiness than junior's students. The mean score of readiness suggested (62%) high level of readiness for seniors and (38%) low level of readiness for juniors. The mean score of sub-scales were 46.45, 48.48 and 59.43 respectively. Moreover, nursing students are ready for self-directed learning. The strong sense of responsibility and self-discipline enables the students to take initiative for self-learning (Yuan et al., 2012).

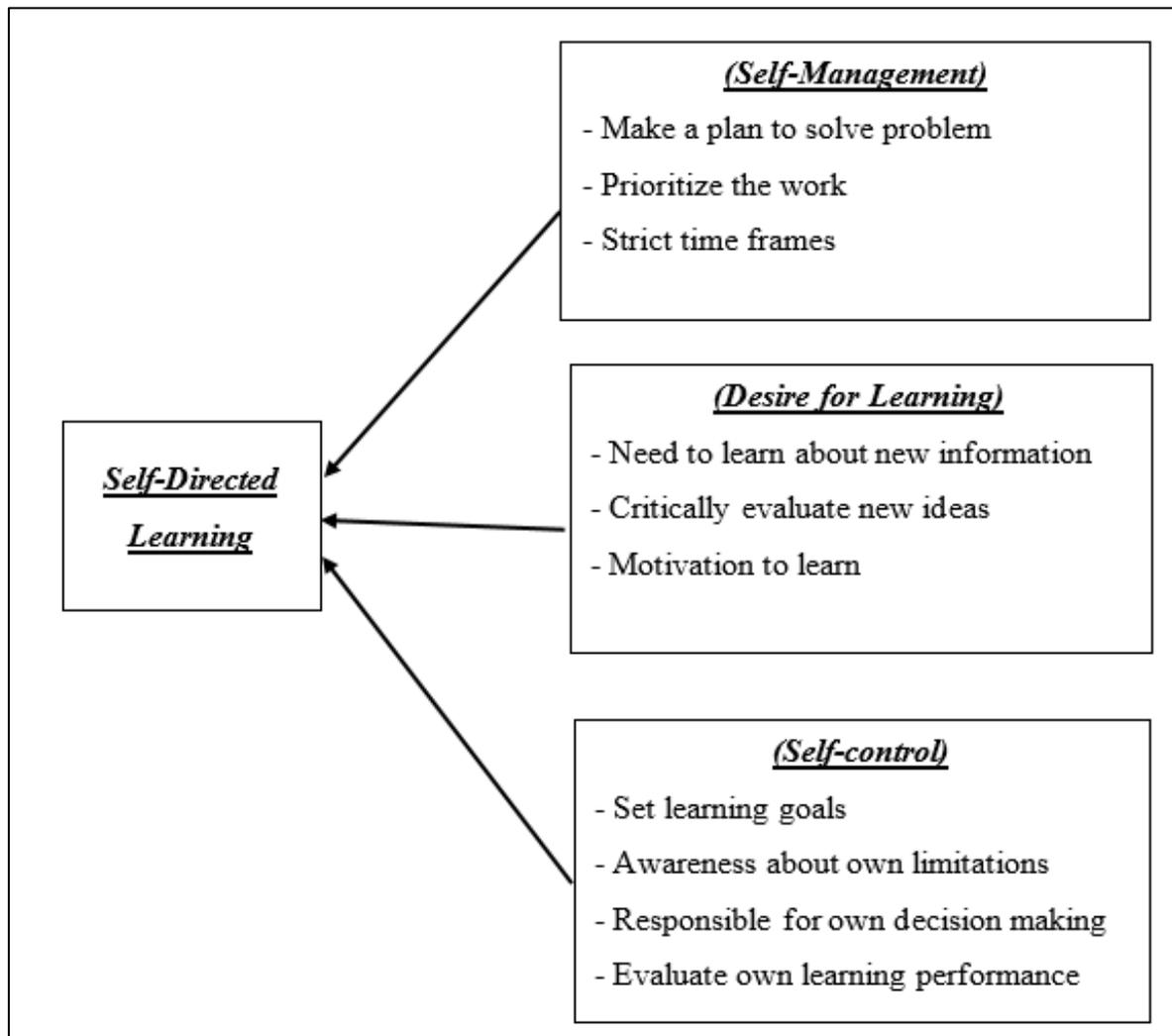


Fig. 1: Self Directed Learning, Garrison Model

Said et al., (2015) revealed in study that advancement in nursing profession requires new skills and knowledge to

become active learner. The study result showed that nursing students have adequate level (60%) towards self-directing

learning which encouraged them for critical thinking and in-service education. Average scores of three components of SDL were 47.9, 47 and 58.2 respectively (Said, Ghani, Khan, & Kiramat, 2015). Moreover, the readiness for self-directed learning as an effective method of teaching. Students divided into two batches and gave a lecture on topic then give extra time for study to both groups. The finding showed the mean scores on first topic were  $6.5 \pm 1.47$  and  $4.8 \pm 1.38$  for Batch A and B. Similarly, the mean scores on second topic for Batch B and Batch A were  $6.3 \pm 1.14$ ,  $4.6 \pm 1.42$  respectively. It concluded that students who take extra self-directed learning classes scored high marks as compared to those who only attend the lecture (Zia et al., 2016).

Self-directed learning and concept mapping enhances critical thinking. The research findings revealed that 23 % scored above average, 18 % below average and about 50 % were average score for readiness of self-directed learning. Moreover, self-directed learning enhances the academic success and GPA of students (Gul et al., 2010). Kranzow and Hyland (2016) revealed that learner autonomy and competency is dependent on self-directed learning. Pre-test was taken before introducing intentional curriculum and score was (239.7) then at the end of the semester with attendance of self-directed learning conference post test conducted which showed (258.6) adequate increase in mean scores. Results indicated, every student who completed both the pre and post SDLRS assessment showed some degree of gain in readiness for self-directed learning. It concluded that extra time for self-study enhances the competency of students. Although, self-study is a learning method especially used in adult education to promote the success. The research result postulated that there is positive correlation between self-directed learning and success. In this way, students become motivated, independent and critical thinker (Avdal, 2013).

However, studies required commitment and willingness for development of self-directedness. The result finding revealed that total mean of self-directed learning score was 159.27. Junior students have low readiness than seniors. Nursing students who already held post-graduate had lower scores for self-management but higher scores in desire for learning. The findings suggested that mature age and academic years not depending on self-reliant study (Phillips, Turnbull, & He, 2015). The research findings of paramedics showed adequate level of self-directed learning readiness. Pupils from University of Technology showed the highest score 160 while members from Charles Sturt University showed the lowest mean score 154.60. Total mean score 157 of second year students showed higher score. The significant value for two subscales were identified between the  $p=0.010$  and  $p=0.017$  for self-control and management of self separately (Williams et al., 2012). Furthermore, self-directed learning is crucial for

students as compared to traditional lecturing. The result showed that mean score of self-directed learning readiness (SDLR) was 144 out of 200, which showed adequate level of readiness for Self-directed learning. There was great difference between education levels. Mostly, students had higher scores in readiness for self-reliant study. There is need to improve self-directed learning skills among students and faculty. So, nursing students participate actively for learning (Alharbi, 2018). People should take control of their own learning for becoming life-long learner because world is changing rapidly. The findings revealed that after self-directed learning techniques, students understand more easily and precisely. Work autonomously and confidently (Siriwongs, 2015).

## Methodology

A descriptive cross-sectional study design was used. The study setting for this research was Lahore School of Nursing, The University of Lahore, Pakistan. All nursing students of Lahore School of Nursing, The University of Lahore Pakistan was the study population. Total population was 200. All male and female nursing students of 2 years Bachelor of Science in Nursing (Post RN) and 4 years Bachelor of Science in Nursing (BSN Generic) having age 18 to 37 years willingly participate in this study was included. Master of Science in Nursing (MSN) students were excluded and those students who were not willing to participate. Convenient non-probability sampling method was used for this study. Sample size was 133 for this study. An adopted questionnaire of Self Directed Learning Readiness Scale for Nursing Education was used for research work (Fisher, King, & Tague, 2001). The questionnaire was contained two sections. The first part was comprised of demographic-data. The other section was consisted forty items of Self-Directed-Learning-Readiness-Scale (SDLR). Likert-scale type questions were utilized ranging from 1- Strongly disagree, 2- Disagree, 3- Neutral, 4- Agree and 5-Strongly agree. Self-Directed Learning Readiness Scale (SDLRS) comprised three components, Self-Management, Desire of Learning and Self Control.

Data was analyzed by software Statistical Package for Social Sciences (SPSS), version 21. Descriptive analysis was performed and check the number and frequencies of overall and subscales of self-directed learning. Independent sample t-test was performed to compare the mean scores of self-directed learning between male and female students. The level of SDL was described and compared with the demographic using Chi-square test. ANOVA test was carried out to compare the mean scores of SDLR of student's different academic years. Self-directed learning was dependent variable and Self-management, desire for learning and self-control were independent variables of this study. Ethical clearance was obtained from ethical committee of Lahore School of Nursing, The University of

Lahore. All data and information were kept confidential. The participants had right to refuse to take part in the study at any time. Confidentiality was maintained throughout the study. Study duration for this research was 4 months from February 2018 to May 2018.

## Results

Data was collected from nursing students of The University of Lahore to assess the readiness for self-directed learning. The current study showed 100% response of the nursing students. Data was collected from 133 nursing students. The data analysis was consisted of three parts. First part included demographic data of nursing students related to age, gender and academic years. Second part was descriptive analysis, which elaborates the numbers and frequencies of 40 items of self-directed learning readiness scale questioner. Third part was analytical analysis of dimensions of self-directed learning with demographic and comparison of levels of SDL with demographic.

In this study, there were 133 students with the mean age of  $23.65 \pm 4.15$  years. There were 26 (19.55%) male respondents while 107 (80.45%) female respondents. Out of 53 (39.8%) respondents of Post RN (2 years degree program), 23 (17.3%) were in year one and 30 (22.6%) in

year two. Out of 80 (60.2%) respondents of BSN generic (4 years degree program), 29 (21.8%) were in year one, 18 (13.5%) were in year two, 19 (14.3%) were in year three and 14 (10.5%) were in year four.

Response of students for self-management, most of the students were strongly agree that "I can solve problem using a plan", 57 (42.9%) said that "I prioritize my work", 53 (39.8%) said that "I am confident in my ability to search out information". 60 (45.1%) agree that "I am self-discipline". 63 (47.4%) "I am systematic in my learning" Distribution of response rate of different items of self-management are given in Table 1.

In the subscale of desire for learning responses of students were as, 55 (41.4%) agreed that "I need to know why", 42.1% agreed to critically evaluate new ideas, 58 (43.6%) strongly agreed that "I learn from mistakes". Distribution of response rate of different items are given in Table 2.

In the dimension of self-control, 69 (51.9%) agreed they are able to focus on a problem, 66 (49.6%) strongly agreed they are responsible, 56 (42.1%) agreed they are logical. Distribution of response rate of different questions is given in Table 3.

**Table 1:** Distribution of response of students for Self-management

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I solve problem using a plan	1 (0.8%)	9 (6.8%)	2 (1.5%)	66 (49.6%)	55 (41.4%)
I prioritize my work	3 (2.3%)	8 (6.0%)	19 (14.3%)	57 (42.9%)	46 (34.6%)
I do not manage my time well	5 (3.8%)	65 (48.9%)	38 (28.6%)	17 (12.8%)	8 (6.0%)
I have good management skills	4 (3.0%)	5 (3.8%)	17 (12.8%)	60 (45.1%)	47 (35.3%)
I set strict time frames	3 (2.3%)	10 (7.5%)	37 (27.8%)	47 (35.3%)	36 (27.1%)
I prefer to plan my own learning	2 (1.5%)	3 (2.3%)	23 (17.3%)	69 (51.9%)	36 (27.1%)
I am systematic in my learning	1 (0.8%)	3 (2.3%)	20 (15.0%)	63 (47.4%)	46 (34.6%)
I am confident in my ability to search out information	3 (2.3%)	4 (3.0%)	11 (8.3%)	62 (46.6%)	53 (39.8%)
I set specific time for my study	3 (2.3%)	8 (6.0%)	18 (13.5%)	59 (44.4%)	45 (33.8%)
I am self-discipline	2 (1.5%)	6 (4.5%)	15 (11.3%)	60 (45.1%)	50 (37.6%)
I am disorganized	19 (14.3%)	61 (45.9%)	28 (21.1%)	17 (12.8%)	8 (6.0%)
I am methodical	3 (2.3%)	3 (2.3%)	31 (23.3%)	56 (42.1%)	40 (30.1%)
I can be trusted to peruse my own learning	3 (2.3%)	3 (2.3%)	18 (13.5%)	64 (48.1%)	45 (33.8%)

**Table 2:** Distribution of response of students for Desire for Learning

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I need to know why	0 (0.0%)	6 (4.5%)	25 (18.8%)	55 (41.4%)	47 (35.3%)
I critically evaluate new ideas	2 (1.5%)	4 (3.0%)	23 (17.3%)	56 (42.1%)	48 (36.1%)
I learn from my mistakes	0 (0.0%)	4 (3.0%)	14 (10.5%)	57 (42.9%)	58 (43.6%)
I am open to new ideas	1 (0.8%)	2 (1.5%)	19 (14.3%)	53 (39.8%)	58 (43.6%)
When presented with a problem, I cannot resolve I will ask for assistance	6 (4.5%)	14 (10.5%)	41 (30.8%)	59 (44.4%)	13 (9.8%)
I like to evaluate what I do	1 (0.8%)	0 (0.0%)	31 (23.3%)	66 (49.6%)	35 (26.3%)
I do not enjoy studying	17 (12.8%)	48 (36.1%)	29 (21.8%)	32 (24.1%)	7 (5.3%)
I have a need to learn	2 (1.5%)	1 (0.8%)	21 (15.8%)	57 (42.9%)	52 (39.1%)
I enjoy a challenge	2 (1.5%)	3 (2.3%)	24 (18.0%)	49 (36.8%)	55 (41.4%)
I want to learn new information	2 (1.5%)	2 (1.5%)	21 (15.8%)	44 (33.1%)	64 (48.1%)
I enjoy learning new information	1 (0.8%)	3 (2.3%)	13 (9.8%)	57 (42.9%)	59 (44.4%)
I like to gather the facts before I make a decision	1 (0.8%)	3 (2.3%)	22 (16.6%)	61 (45.9%)	46 (34.6%)

**Table 3:** Distribution of response of respondents for Self-Control

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am able to focus on a problem	3 (2.3%)	2 (1.5%)	19 (14.3%)	69 (51.9%)	40 (30.1%)
I prefer to set my own learning goals	2 (1.5%)	2 (1.5%)	17 (12.8%)	66 (49.6%)	46 (34.6%)
I am responsible	1 (0.8%)	3 (2.3%)	18 (13.5%)	45 (33.8%)	66 (49.6%)
I have high personal expectations	1 (0.8%)	3 (2.3%)	25 (18.8%)	52 (39.1%)	52 (39.1%)
I have high personal standards	1 (0.8%)	4 (3.0%)	32 (24.1%)	51 (38.3%)	45 (33.8%)
I have high beliefs in my abilities	0 (0.0%)	3 (2.3%)	29 (21.8%)	53 (39.8%)	48 (36.1%)
I am aware of my own limitations	1 (0.8%)	0 (0.0%)	31 (23.3%)	51 (38.3%)	50 (37.6%)
I am logical	2 (1.5%)	3 (2.3%)	21 (15.8%)	56 (42.1%)	51 (38.3%)
I evaluate my own performance	2 (1.5%)	10 (7.5%)	29 (21.8%)	66 (49.6%)	26 (19.5%)
I prefer to set my own criteria on which to evaluate my performance	0 (0%)	6 (4.5%)	23 (17.3%)	57 (42.9%)	47 (35.3%)
I am responsible for my own decisions / actions	2 (1.5%)	1 (0.8%)	20 (15.0%)	51 (38.3%)	59 (44.4%)
I can find out information for myself	0 (0%)	2 (1.5%)	21 (15.8%)	60 (45.1%)	50 (37.6%)
I like to make decisions for myself	0 (0%)	2 (1.5%)	19 (14.3%)	60 (45.1%)	52 (39.1%)
I prefer to set my own goals	1 (0.8%)	3 (2.3%)	20 (15.0%)	53 (39.8%)	56 (42.1%)
I am not in control of my life	10 (7.5%)	36 (27.1%)	31 (23.3%)	21 (15.8%)	35 (26.3%)

As shown in Table 4 there was insignificant difference in all age groups for mean score of self-management, desire for learning, self-control and overall SDL ( $p > 0.05$ ). However, mean score for age 28-32 was highest among all

other age groups. This showed that mature age has more impact on SDL. The mature students have greater ability for self-directed learning. There was insignificant difference in both gender for mean score of self-management, desire for

learning, self-control and overall SDL ( $p > 0.05$ ). This showed that gender does not have impact on SDL whether respondent is male or a female, the SDL is equal. There was significant difference in years of both degree programs for mean score of self-management, desire for learning, self-control and overall SDL ( $p < 0.05$ ). According to Degree

program, years 2 of Post RN and year 3 and 4 of BSN Generic had better SDL score than Post RN year 1 and BSN Generic year 1 & 2. This showed that years of both degree program has significant impact on SDL and respondent in later years has better performance toward self directed learning.

**Table 4:** Comparison of mean score of all dimensions of self-directed learning with Demographics

Dimensions	Self-Management	Desire for learning	Self-Control	Overall SDL	
<b>Total</b>	49.79±6.61	47.80±5.75	60.98±7.83	158.57±17.64	
<b>Age (years)</b>	18-22	48.69±7.44	47.32±5.89	60.44±7.29	156.46±18.18
	23-27	50.60±5.72	48.57±5.86	60.19±8.59	159.36±17.78
	28-32	51.94±4.99	48.65±5.31	64.29±6.78	164.88±14.39
	33-37	50.50±5.09	45.50±4.51	63.17±10.03	159.17±18.23
	<i>p-value</i>	<b>0.225</b>	<b>0.471</b>	<b>0.235</b>	<b>0.359</b>
<b>Gender</b>	Male	50.0±6.09	47.77±5.95	60.69±7.35	158.46±15.66
	Female	49.73±6.76	47.81±5.73	61.05±7.97	158.6±18.16
	<i>p-value</i>	<b>0.857</b>	<b>0.972</b>	<b>0.837</b>	<b>0.972</b>
<b>Academic Years</b>	Post RN Year 1	45.74±3.90	44.78±5.11	56.43±7.96	146.96±14.85
	Post RN Year 2	53.27±4.11	50.40±3.89	65.53±5.82	169.20±10.05
	Generic Year 1	46.48±8.03	45.59±6.00	59.14±7.42	151.21±18.71
	Generic Year 2	44.94±5.10	45.67±4.35	57.33±6.64	147.94±13.33
	Generic Year 3	54.53±3.06	50.68±5.85	62.68±6.08	167.89±13.29
	Generic Year 4	55.64±3.30	50.64±6.22	64.86±8.98	171.14±16.04
	<i>p-value</i>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

**Table 5:** Comparison of levels of respondents with Demographics

Overall		Low Level	High Level	Total	P-value
<b>Age (years)</b>	18-22	27 (56.3%)	41 (48.2%)	68 (51.1%)	0.666
	23-27	15 (31.3%)	27 (31.8%)	42 (31.6%)	
	28-32	4 (8.3%)	13 (15.3%)	17 (12.8%)	
	33-37	2 (4.2%)	4 (4.7%)	6 (4.5%)	
<b>Gender</b>	Male	8 (16.7%)	18 (21.2%)	26 (19.5%)	0.529
	Female	40 (83.3%)	67 (78.8%)	107 (80.5%)	
<b>Academic years</b>	Post RN Year 1	15 (31.3%)	8 (9.4%)	23 (17.3%)	0.000
	Post RN Year 2	3 (6.3%)	27 (31.8%)	30 (22.6%)	
	BSN Generic Year 1	13 (27.1%)	16 (18.8%)	29 (21.8%)	
	BSN Generic Year 2	12 (25.0%)	6 (7.1%)	18 (13.5%)	
	BSN Generic Year 3	4 (8.3%)	15 (17.6%)	19 (14.3%)	
	BSN Generic Year 4	1 (2.1%)	13 (15.3%)	14 (10.5%)	

As shown in Table 5 age 18-22 years, there were 27 (56.3%) respondents of low level and 41 (48.2%) had high level for

Self directed learning. In age 23-27 years, 15 (31.3%) low level and 27 (31.8%) had high level. In age 28-32 years, 4

(8.3%) low level and 13 (15.3%) had high level. The difference was insignificant ( $p > 0.05$ ). Among male respondents, there were 8 (16.7%) respondents who had low level while 18 (21.2%) had high SDL level. Among female respondents, there were 40 (83.3%) respondents who had low level while 67 (78.8%) had high SDL level. The difference was insignificant ( $p > 0.05$ ). Among respondents of Post RN, there were 18 (37.5%) respondents who had low level while 35 (41.2%) had high SDL level. In response of Post RN year 1, there were 15 (31.3%) respondents who were high level. Final year of BSN Generic year 4, there were 1 (2.1%) respondents of low level and 13 (15.3%) had high level. The difference was significant ( $p < 0.05$ ) for students of final year of Post RN and year 3 & 4 of BSN Generic had high level for self-directed learning.

## Discussion

The findings from this study showed positive attitude and satisfactory level of students toward self-directed learning. Final year students of both degree programs (2-years Post RN and 4-years BSN Generic) scored higher than 150 according to Fisher's et al (2001) criteria. In this study, the overall score of self-directed learning was  $158.57 \pm 17.64$  while the mean score for self-management, desire for learning and self-control were  $49.79 \pm 6.61$ ,  $47.80 \pm 5.75$  and  $60.98 \pm 7.83$  respectively. According to this study as age increases the self-directed learning readiness also increases. As it is reported in the study of (Williams et al., 2012) mature age has more impact on readiness of self-directed learning. In the research of Said et al., (2015) it was concluded that majority of students were ready toward self-directed learning. The mean score on forty items questionnaire was  $153.2 \pm 25.2$  while  $47.9 \pm 8.4$ ,  $47 \pm 8.1$  and  $58.2 \pm 10.9$  on self-management, desire for learning and self-control respectively. Similarly, in the study of Gilany & Abusaad (2012) the total mean score was 159.6 and scores for self-management, desire for learning and self-control were 51.3, 48.4 and 59.9 respectively. It showed the student's high level of readiness toward self-directed learning.

In this study the mean score of self-control is higher than self-management and desire for learning. Similarly, in another study, the scores of self-control were higher than self-management and desire for learning (Qamata-Mtshali, 2013). The study of Gilany & Abusaad (2012) revealed that self-control scores were higher than other subscale scores. It shows the responsibility, beliefs, standards and limitations of the nursing students toward self-control which are crucial for self-directed learning. The study results revealed that instructions along with problem solving strategies improve nursing student readiness for self-directed learning and critical thinking (Shahin & Tork, 2013). In an experimental study, it was concluded that students who were taught with problem-based learning were

better toward SDL rather than traditional teaching strategy. Self-directedness is good for students along with teaching strategies (Bagheri et al., 2013). Another quasi-experimental study result showed that extra courses that fulfill the learning needs of students increased their level of knowledge and level of readiness for self-directed learning. Extra educational activities encourage the students to become more self-reliance (Reviriego et al., 2014). In this study, senior students showed higher level of self-directed learning than junior students. This study is similar to the study of Yuan et al (2012), where senior students demonstrated high level than new comers. In first year students learned role, functions and basics of knowledge as well as students go in higher classes they learn different clinical practice experience and became responsible for discussion. As students learn self-study techniques, they become independent in decision-making, problem solving and critical thinking. This contributes to enhance the self-directed learning readiness among nursing students (Yuan et al., 2012).

The current study findings are almost similar with the study results of Phillips (2015) in his research work the mean of the total SDLRS was 159.27 (SD 14.62). The means of the three sub-scales were 48.63 (SD 6.98) for SM, 49.91 (SD 4.70) for DL, and 60.73 (SD 5.74) for SC respectively. Significant difference was found in self-directed learning scores in three different academic years. Result revealed that first year's students had significant lower scores in self-directed learning readiness than third years students. First year students had significantly lower scores in self-management and self-control than third year students. While third year students had lower score for desire for learning than first year students. This concluded that first year students' needs more guidance and assistance than later year students who become more independent and autonomous (Phillips et al., 2015). Desire for learning and motivation is important for students to further study. In the study of Francois (2014) it was revealed that motivations of non-traditional students at undergraduate and post-graduate levels are distinctly different. Postgraduate students tend to be motivated by "cognitive interest" whereas undergraduate students are motivated by "communication improvement" (Francois, 2014).

## Conclusion

It is concluded that mostly nursing students were ready for self-directed learning but it depends on the students' academic years. Final years students were readier toward self-directedness than junior students. Students showed satisfactory level of self directed learning. The variations in academic years help in identifying students' needs then nurse educators will modify learning activities for these students. Promoting self-directed learning abilities are difficult but nurse educators identify the students' strengths

and weaknesses then include self-directed learning activities year to year in curriculum. This study will help the policy makers in the development of student-centered curriculum.

## Recommendations

- Further research is recommended with large sample size.
- Nurse educators should assess the students' strengths and weakness and promote self-directed learning skills among those nursing students.
- The nurse instructors should determine the learning styles of students to identify how self-directed learning will influence the achievement level of students.
- Further research is recommended which degree program enhances the motivation of students whether (2-year Post RN) when nursing students came after holding diploma in nursing or (4 years BSN Generic) when students came after completion of intermediate level study.

## Limitations

- This study had some limitations. First, the sample was not random, which limited the generalizability of results to the underlying population.
- Small sample size and unequal samples from different academic years could cause difference in results.
- The study time was short which may influence the results.
- The result showed level of students' readiness for SDL locally and these findings may not be generalized to other students because of different degree programs, learning environment and strategies of institutions which influence the students' readiness for SDL.

## Conflict of Interest

The author of this paper has no conflict of interest.

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