



Effect of Workshop Training on Self-Directed Learning Skills of Students at Shiraz University of Medical Sciences

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Abstract

Introduction: Self-directed learning (SDL) is the most important factor in the future success of students in medical schools. In self-directed learning, each student takes responsibility for his/her own learning activities. The main purpose of this study was first to determine students' most common learning problems and then familiarize them with the concept of self-directed learning in a teaching workshop. Teaching emphasized SDL skills and processes.

Methods: This study used a pre-post interventional design and was conducted in Shiraz Medical School. The first step of the study was a self-administrated questionnaire to investigate the students' study problems and in the second step all first year medical students (90 students) were involved in a teaching workshop. It is worth mentioning that inclusion criteria of the study included participants' willingness to participate in the study, and exclusion criteria included unwillingness of participants to continue the study or not completing the questionnaires. Descriptive data analysis was performed by SPSS version 18.

Results: The findings showed that the most important study problem was related to the amount of materials and content, according to 68 students (75.8%), and teaching SDL skills could increase their motivation to learn, according to 83 students (92%).

Conclusion: Teaching SDL skills to students can motivate their willingness to learn and could be used as a strategic approach to teaching. It seems universities should invest on students' learning skills.

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Introduction

Self-directed learning (SDL) is one of the most important methods to be introduced to medical education in the last four decades. Today, SDL, along with concepts such as lifelong learning, continuing education and active learning, has come to the forefront in all aspects of education.¹ Malcolm Knowles described self-directed learning as a process in which each person takes the initiative to identify their own learning needs and objectives, identify resources and materials needed to learn, choose and apply suitable learning strategies and assess their learning outcomes, with or without the help of others.²

In other words, SDL refers to the learner's degree of responsibility for his/her own learning. This definition has been considered in two dimensions: first, self-directed learning understood as a process or method of learning and

second, the notion that understanding responsibility is both a necessary component and an outcome of SDL. Readiness for SDL is defined as the degree the students possesses the attitudes, abilities and personality characteristics needed for self-directed learning.³ Assumptions considered in the definition of self-directed learning readiness are as follows: students must be familiar with this concept and show desire towards it, they must have the necessary authority to develop self-directed learning skills and determine the best way of learning and they must have the ability to learn independently.⁴ In the definition of SDL, three main areas are considered which include self-management, self-control and desire for learning.⁵

Student success in medicine science depends on updated knowledge, skills, and being self-directed. In a world in

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which the half life of what students learn in many subjects is less than five years, it is very important to teach them how to learn and acquire new knowledge and skills by themselves. It is essential for medical students to attain new knowledge easily. Thus, SDL has been identified as a basic skill for medical graduates.⁶ Due to the importance of SDL, this study aimed to identify students' study problems and familiarize them with the concept of SDL through a teaching workshop.⁷

Materials and Methods

Research Design

This is a descriptive pre-post interventional design.

Setting and Subjects

This survey was conducted at the end of the winter semester in the academic year 2012-13 in Shiraz Medical School. All first year medical students (90 students) voluntarily (not by force) participated in the study after receiving oral information about the aims of the study.

Data Collection Tools

Two questionnaires were used as the data collection tools. The first questionnaire was self-administered and used to identify the common study problems among students.

Content validity of the questionnaire was confirmed by three educationalists and Cronbach's alpha coefficient was $\alpha = 0.87$, which shows the reliability.

In the second questionnaire, the Self-Directed Learning Readiness Scale (SDLRS) was used to determine the students' self-directed learning abilities. The SDLRS is a self-report questionnaire with 58 questions in five-point Likert-scale items, which include three areas: self-management, willingness to learn and self control. The validity and reliability of the questionnaire were reviewed by three experts in medical school and Chronbach's alpha coefficient was 83%.⁶

Sampling

According to the statistical consultation and due to the research society there was no need of sampling. Therefore the total population was used as the statistical sample in this study by the census scheme method.

Including/Excluding Criteria

The inclusion criteria of the study included participants' willingness to participate in the study, and exclusion criteria included unwillingness of participants to continue the study or not completing the questionnaires.

Data Analysis

Descriptive data analysis was performed using SPSS version 18. Data were presented by mean and standard deviation and the groups were compared using independent t-test.

Ethical Approval

This study was approved by the HSR Educational Deputy of Shiraz University of Medical Sciences and informed consent was taken from all the participants. At the beginning of the teaching workshop, the participants were acquainted with the purpose of the study, method of

teaching, privacy and confidentiality of the study.

Results

Students' study problems

Based on the students' view, the most common study problem was related to the large amount of content. Table 1 shows a list of students' study problems. There was no significant relationship between gender and study problems.

Table 1. Students' study problems

Items	Frequency (%)
Large amount of content (too much materials)	68(75.8%)
Lack of reviewing the lecture during semester	56(63.1%)
Fatigue and distraction while studying	56(61.7%)
Inability to balance studying and social activities	47(52.5%)
Failure to do home work on time	46(52.1%)
Not having enough time to study	43(47.5%)
Note taking problems	27(30%)

Mean±Standard of SDL Skill in students

Students SDL skills in three areas, self-management, self-control and willingness to learn are showed in Table 2. Table 3 shows the comparison of pre-post tests results.

Analytic result

Before and after teaching SDL

In comparing the results of pre-tests and post-tests (individual evaluation form of students participating in the centered learning skills workshop), 75 participants responded. The mean scores of the pre-test and post-test were obtained (pre test = 13.8 and post test = 14.8) (Table 2). This increase in the self-directed learning skills of students shows a statistically significant difference ($p < 0.002$). Table 3 indicates the results of the pretest and posttest mean scores of students.

Discussion

Most students experience problems with studying in their academic life and it is a challenging issue for them. Recognizing these problems by students and Student Counseling Services is a helpful way to support them. As this study shows, most medical students face and deal with limitless material to be learned and have little time or energy to study effectively.⁹⁻¹¹

In this study, self management-skills were better than self-control in medical students and the same situation was reported in Naeimi's study in Tehran Medical School.¹²

Also, other studies emphasize the effect of teaching SDL skills to improve students' abilities and also increase academic performance.^{12,13}

Gholami also studied the relationship between self-directed learning, self-efficacy and academic motivation and the results indicated that there is a significant correlation between the scores of students' self-directed learning and their academic achievement. These two variables could predict academic achievement.¹⁴⁻¹⁶

In self-directed learning (SDL), students take it upon

Table 2. Students' SDL skills

Dimensions	Mean±SD
Self management	3.02±0.59
Willingness to learn	2.89±0.50
Self control	2.97±0.48

Table 3. Before and after teaching (workshop) results

Test	Mean±SD	95% confidence interval of the mean difference		df	P.value
		Upper	Lower		
Pre-test	13.86±2.33	11.241	15.932	23	0.002*
Post-test	14.80±2.42	11.031	16.214		

*Pair Sample t-test

themselves to be responsible for what occurs. Individuals choose, manage and evaluate their individual learning undertakings, which can be worked toward at any time and place, through any manner and at any age. In school settings, instructors can implement SDL stage by stage. Creating and promoting self-directed learning skills are important goals of higher education and its value as a necessary skill for students. Teaching SDL skills is essential for medical students to become lifelong learners.

Suggestion

This learning style can assist students in understanding both physiological and affective stimulation as indications of growing, rather than restricted, capacities.

In future research, larger samples of national data should be collected within a limited timeframe in order to confirm the findings of this study. In addition, it would be helpful to find out if these relationships hold in other countries.

Competing interests

The authors declare that they have no competing interests.

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