

### Students' Attitude towards Note-taking and Reading Pamphlets/handouts in Courses

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**Background:** the inappropriate use of handouts and notes is a common academic problem among students. Students' notes are too brief and incomplete in compare with references; hence they may not cover the required content for the courses. The aim of this paper is to analyze students' attitude toward reading handouts and notes instead of references.

**Methods:** In this analytical and descriptive study a representative sample of 201 participants, including medical, paramedical, nursing and midwifery students of Golestan University of Medical Sciences, has been drawn. The data derived from this research has been collected by a valid and reliable questionnaire. There have been 39 questions in the questionnaire ranging from 1 to 5, based on Likert scale; five represents that students are proponent of reading notes. The sum of scores was 20; the 16th version of SPSS, T-test, one-way and two-way variance analysis at significance level  $p < 0.05$  were used in analyzing the data.

**Findings:** 66.7% of participants were female. ANOVA test showed that there were significant differences among the mean of attitudes of medical students ( $18.15 \pm 1.37$ ), nursing ( $17.15 \pm 1.46$ ), and paramedical ( $17.67 \pm 1.35$ ) ( $P = 0.008$ ). The overall results revealed that the huge amount of content of references is the main factor for students' tendency to use notes instead of references.

**Conclusion:** the final result was that students have got positive attitude to note-taking during courses and use their notes as their direct reference material, while the class notes are not reasonably efficient, particularly when used as the main learning strategy.

**Keywords:** Attitude, University Students, Note-taking

### نقاط الضعف و القوه في دورات التعليم السريري من خلال رقية طلاب و اباته قسم الواه في جامعه تبريز للعلوم الطبيه

**التصويد و الهدف:** إن الحصول على تعليم سريري مطلوب للريتم الى بتقييم مستمر للوضعية العاليه حتى يتسنى لنا التعرف على نقاط القوه و الضعف في هذا المجال و هدف هذه الدراره هو التعرف على نقاط القوه و الضعف في دورات التعليم السريري.

**الألوب:** هذه الدراره تمت بشكل (توصيفي - مقطعي) و كانت بهدف الحصول على نقاط القوه و الضعف في دورات التعليم السريري في قسم الولاده من خلال آراء الطلاب و المدرسين في جامعه تبريز الطبيه. تم تجميع المعلومات عبر استمارات في سنة ١٣٨٩ هـ.ش و تم تحليل المعلومات عبر برنامج Spss.

**النتائج:** إن عدم وجود معلومات كافية عند الطلاب قبل الدخول الى الدراره، وعدم وجود مكان كافي لأجل المطالعه و قاعات التدريس و ايضا عدم وجود اماكن الإرتباط مع مسئولين الكلية و الجامعه

كانت من اهم النقاط السلبيه و إن وجود تجريريات و الأقسام السريريه الكافيه ووجود تنوع في المرضي الذين يستطيع الطالب أن يتكسب منهم الخبره كانت من اهم نقاط القوه في التعليم السريري كان هناك اختلاف ذو قيمه من جبره اخصائيه بين طلاب السنه الثانيه و الثالثه و الاخيره ( $p < 0.05$ )

**الإستنتاج:** إن اعطاء المعلومات الكافيه قبل بدئ الدراره و اعطاء الاشراف بشكل مكتوب و اعاده النظر في الوب تقييم الطلاب و ايجاد مساحات تعليميه كافيه تكون قدم مؤثر في رفع المستوى التعليمي.

**الكلمات الرئيسيه:** التعليم السريري، طلاب قسم الولاده، المدرسين نقاط الضعف و القوه.

### بررسی علل گرایش دانشجویان به استفاده از جزوه درسی

**زمینه و هدف:** یکی از مشکلات آموزشی استفاده نادرست اکثر دانشجویان از جزوات درسی به جای به کتب مرجع است. جزوات درسی، با ساختار ویژه خودشان نمی توانند در برگزیده همه مطالب لازم درسی مورد نیاز برای یک دانشجو باشد این پژوهش با هدف بررسی نگرش دانشجویان در خصوص استفاده از جزوات درسی به جای کتب مرجع انجام شده است.

**روش:** در این پژوهش توصیفی- تحلیلی در سال ١٣٩٠، ٢٠١ دانشجوی شاغل به تحصیل در دانشگاه علوم پزشکی گلستان با استفاده از نمونه گیری آسان وارد مطالعه شدند. داده ها با استفاده از پرسشنامه ٣٩ سوالی جمع آوری شدند. میانگین نمرات از ٢٠ محاسبه گردید. تجزیه و تحلیل داده ها با نرم افزار SPSS نسخه ١٦ و با آزمون های تی تست مستقل و آنالیز واریانس یک طرفه و دو طرفه در سطح معنی داری  $p < 0.05$  صورت گرفت.

**یافته ها:** از ٢٠١ نفر، ٦٦/٧ درصد دانشجویان مونث بودند. میانگین نمرات نگرش دانشجویان پزشکی  $18.15 \pm 1.37$ ، پرستاری  $17.15 \pm 1.46$  و پیراپزشکی  $17.67 \pm 1.35$  با استفاده از آنالیز واریانس تفاوت آماری معنی داری داشتند ( $P = 0.008$ ). در بررسی گویه ها "حجم زیاد کتب درسی" از بیشترین علل ترغیب دانشجویان به گرایش به استفاده از جزوه بوده است.

**نتیجه گیری:** با توجه به نگرش مثبت دانشجویان نسبت به جزوه نویسی و ناکافی این رویکرد در یادگیری به ویژه وقتی که تنها منبع یادگیری دانشجو باشد لذا ضروری است تا دانشجویان را با شیوه های دیگر یادگیری از سخنرانی های کلاس درس و استفاده تلفیقی آنها آشنا ساخت.

**واژه های کلیدی:** دانشجوی علوم پزشکی، جزوه درسی، جزوه خوانی، نگرش

### نوٹس سے استفادہ کرنے میں طلباء کے محرکات

**بیک گراؤنڈ:** تعلیمی عمل میں ایک مشکل طلباء کا نوٹس سے غلط استفادہ کرنا ہے۔ اکثر طلباء نصابی کتابوں کے بجائے نوٹس سے استفادہ کرتے ہیں۔ نوٹس میں کلاس کے مکمل مطالب نہیں ہوتے اور ان سے طلباء کی تعلیمی ضرورتیں پوری نہیں ہوسکتیں۔ یہ تحقیق نوٹس سے استفادہ کرنے کے طلباء کے محرکات کا پتہ لگانے کے لئے انجام دی گئی ہے۔

**روش:** یہ تحقیق دوہزار دس اور گیارہ میں انجام دی گئی تھی جس میں دوسو ایک طلباء نے شرکت کی تھی۔ ان طلباء کا تعلق گلستان میڈیکل یونیورسٹی سے تھا۔ تحقیق کے لئے طلباء کو سوالنامے دئے گئے تھے جس میں انتالیس سوالات تھے۔ بیس نمبروں میں سے ہر سوالنامے کو نمبر دئے گئے تھے۔ جوابوں کا تجزیہ ایس تی ایس سولہ اور یکطرفہ اور دو طرفہ واریانس تجزیاتی ٹول سے کیا گیا تھا۔

**نتیجے:** دوسو ایک طلباء میں سے چھیاسٹھ اعشاریہ سات فیصد طالبات تھیں۔ نوٹس سے استفادہ کرنے کا سب سے اہم سبب درسی کتابوں کا بڑا حجم اور ضخامت تھا۔

**سفارشات:** نوٹس کے بارے میں طلباء کی مثبت نظر اور اس طریقے کا تعلیمی لحاظ سے ناکافی ہونا اس ضرورت کو ثابت کرتا ہے کہ طلباء کو کلاس سے بھرپور استفادہ کرنے اور اپنی پڑھائی کو موثر بنانے کے دیگر طریقوں سے آشنا کرایا جائے۔

**کلیدی الفاظ:** میڈیکل طلباء، نوٹس، درسی کتابیں۔

## INTRODUCTION

There are some important factors to achieve academic success, including an organized and integrated program of study, an appropriate use of reference materials and sources, great perseverance, regular class-attendance, and good study habits. Learning motivation, learning style, time and place of study are mentioned as influential factors on learning, as well (1).

Textbooks and class handout materials are two frequent and main sources of information for the students. The privileges of references to classroom notes are as follow: the students can clarify their misunderstandings, complete their notes, and cover the missing information; while the class notes are taken quickly, are brief in details, or even sometime completely different from the presented lectures in the class (2).

One of very common educational problems is using notes, taken in classes, as the main reference instead of textbooks at universities. Class notes or handouts cannot cover all required content of a course for the students. A study has revealed that students devote fifteen thousand hours each year to note-taking which gradually leads to the loss of scientific sensitivity among them. That would have deep harmful effects on educational motivation and learning (3). Although note-taking helps students to have a quick review of lessons, one of the main problems is that they may not be sure which parts of class presentations are the most important. Some of the students have complains that there is a degree of ambiguity in teachers' lectures or they speak very fast, so they cannot take notes along with teacher's presentation. These sorts of scattered notes are not often helpful for a good learning (4).

In a study, conducted by Rashidian, the effectiveness of different types of learning materials, used by students in courses of basic medical sciences, was evaluated. The class notes had the most influence while materials such as English or Persian references had the least (5).

There are various factors that reinforce students' tendency for note-taking instead of reading references. For instance they think that reading textbooks is time consuming; moreover they do not have enough proficiency in English. Also some of faculty members' teaching methods make students take notes (6).

A survey on student's attitudes to e-learning was administered among dentistry scholars. It revealed that 96 percent of them used both books and class notes together. The majority of students mentioned that electronic materials are useful when used along with traditional methods such as note-taking (2). According to medical students' perspective, a mixed content that consist of class notes, electronic materials and textbooks would strongly enhance students' learning (7).

A comparison of National Basic Science Exams' results, set in Hamadan Medical University, revealed that students have got better results among the other universities. In 6th exam, in which students took the courage to read references instead of their own notes, the results were even better than 4th exam (8).

Having a study plan, an appropriate learning style, and

reading required learning materials are necessary factors for the students to succeed in education. In a study, 83 percent of students stated that they always study their notes during semester, and 91 percent of them mentioned that their notes are their main source of study for final exams (1). Tendency for note-taking in classes and using them instead of books would have negative effect on the learning process, as well as research interests and stimulation (6). Lack of good learning materials and study guides were some of the problems that mentioned by the students who couldn't pass academic courses. Holding specific learning skills or study skills workshops and providing educational consultation, provide positive feedbacks and outcomes (9). This study is conducted with regard to the students' motivation and attitude toward note-taking and using it instead of textbooks.

## METHODS

In this analytical and descriptive study a representative sample of 201 participants, including medical, paramedical, nursing and midwifery students of Golestan University of Medical Sciences, has been drawn. The estimated sample size is based on two way significance,  $\alpha=0.05$ , and testing power 80% ( $d=0.4$ ). Data have been collected by a self-administrated tool, composed of 39 closed questions and 6 questions originated from Ghazavi's study (2008). The questionnaire included three parts; 1) demographic-educational items such as; age, sex, marital status, ethnicity, school, major of study and semester; 2) specific questions about attitude toward reading handouts and notes; 3) questions about reading text books. Content validity of the questionnaire was confirmed by 10 faculty members; and the reliability (coefficient of internal consistency) was 0.92, based on Cronbach's alpha (6). Attitude scores were measured on a Likert scale ranging from 1 to 5; five indicates that participants are proponents of note-taking. The sum of scores was 20. With University and Research Deputies' permission, the questionnaires were distributed at the end of classes in Medical, Nursing and Paramedical schools and immediately gathered after they were filled out by the students. Participants were students of Golestan University of Medical Sciences.

Data were analyzed by SPSS (ver. 6) and statistical tests; T-Test, one-way and two-way analysis variance at significance level  $p<0.05$ . Moreover, the Scheffe Follow-up test was used to determine the differences among the groups.

## RESULTS

The mean age of students was  $21.31\pm 2.01$ ; 66.7% (134) of them were female; 82.1% (165) of the participants were single. In terms of ethnicity 51.7% (104) of the students were Fars. 50.7% (102) of the students were from paramedical school and 92.5% (186) were at bachelorette level programs.

The mean of students' scores from 20 was  $17.48\pm 1.4$  (CI 95%:  $17.28\pm 1.68$ ). The result of Kolmogorov-Smirnov test confirmed the normality of students' attitudes scores. There was a statistical significant difference in mean of attitude's scores in female students  $17.58\pm 1.32$  in compare with male students  $17.29\pm 1.60$  ( $P=0.2$ ).

There was no significant difference between the mean of students' attitude scores related to using hand outs instead of reading textbooks between single students ( $17.5 \pm 1.40$ ) and married ones ( $17.42 \pm 1.53$ ), ( $P=0.7$ ).

One-way analysis variance test showed a significant difference among mean of medical students' attitude ( $18.15 \pm 1.37$ ), with nursing ( $17.15 \pm 1.35$ ), and paramedical students ( $17.67 \pm 1.35$ ), ( $P=0.008$ ). The Scheffe Follow-up test confirmed the difference among the medical, nursing and paramedical students too.

According to two-way analysis variance (Table 1) there was no significant difference between major of study, gender and score of attitude ( $P=0.2$ ). Table 2 shows the frequency of the studied variables and its relationship with mean of attitude scores.

**DISCUSSION**

The findings of the study revealed that students have great interest in note-taking and handout reading instead of reading books. Some evidences indicate that lack of references in libraries, particularly specific books required for some courses, is a significant factor that actuates students to read hand-out and notes.

The study by Safi and her colleagues (2010) showed that the amount of available sources in the library of school is on average (1). Providing updated and enough educational materials at universities' libraries might change students'

tendency from reading handout to reading books or textbooks. Ghazavi (2009) also reported that students of Arak University have great interest in note-taking during courses and do not study the references that instructors recommend. The huge amount of content of textbooks in compare with brief and short notes has been a primary factor that motivates students to read notes instead of references (6). In a study 83% of the students stated that they mostly used their notes as the main source for the learning (1). Shariati' study (1996) showed that 83% of the students studied only their notes for final exams (3), which is similar to our finding. To solve this problem, students

**Table 1. The Relationship among Sex, Major of Study, and Attitudes to Note-taking**

Sex	Major of study	Mean& SD	
Female	Medicine	18.7±1.2	P-0.2 F:1.37
	Nursing & Midwifery	17.4±1.3	
	Paramedical	17.7±1.3	
Male	Medicine	17.8±1.4	P-0.2 F:1.37
	Nursing & Midwifery	16.7±1.6	
	Para-medical	17.7±1.5	

**Table 2. The relationship among the studied variables and mean of students' attitudes scores**

	Variable	Mean& SD	Test
sex	Female	14.42±1.09	P-0.1 t:1.32
	Male	14.19±1.31	
Marital status	Single	14.35±1.16	P=0.7 t=0.31
	Married	14.29±1.25	
Major of study	Medicine	14.89±1.14	P=0.003 F:5.92
	Nursing & Midwifery	14.03±1.20	
	Paramedical	14.52±1.10	
level of study	BS		P=0.003 F:5.92
	MS		
	PhD		
School	Medicine	14.89±1.14	P=0.003 F:5.92
	Nursing & Midwifery	14.03±1.20	
	Paramedical	14.52±1.10	
Ethnicity	Fars	14.43±1.17	P=0.61 F: 0.6
	Turkmen	14.29±1.13	
	Sistani	14.02±1.48	
	Others	14.22±1.09	

should be guided into a plan that enables them to study the textbooks during the semester and also have appropriate leaning styles. Some authors believe that students' interest in getting university certification and also easy access to manuals and abstracts of textbook are two factors that attract students to read their notes. Without any doubt, applying new methods of teaching by instructors would decrease this problem and actuates students to study references instead of notes (6).

Also lack of English proficiency to read original textbooks predisposes students to note-taking. In a study 84% of students, 76% of interns and 90% of medical residents stated that they study translated books (10). The results of another study showed that only 2.7% of students studied original books (1). Although, the translated books make reading easier, the medical students should have enough English knowledge and could make use of it practically. As mastery in reading textbooks depends on medical students' foreign language skills, a reform in English teaching methods might be necessary at universities. Amin and her colleagues' study (2012) showed that as students' levels of education improve there is wider trend towards surface approach to learning. The authors suggested that medical students should be encouraged to adopt deep approach to learning, with a problem-based learning strategy and group work activities, and spend much of their time reading (11). There has been a strong relationship between students attitude' scores and demographic data, while other studies reported no relationship among sex, level of study, school and note-taking (6, 12, 13). There is also close relationship

between level of education and the trend toward reading notes (10, 14). Although we could not find any relationship between students' average and note-taking, there are other findings against ours (3). Perhaps, using different data gathering tools and methodology is the reason for the controversy findings.

The major limitation of the study was the sampling method. Perhaps convenience sampling is not representative of all students of university. Conducting mixed methodology (qualitative and quantitative) provides better and deeper understanding of this phenomenon. As a final point, there are few studies on educational strategies and behaviors; we hope the findings of this research provide some clues and ideas for educators and education policymakers in order to re-think the challenges of the current teaching-learning strategies.

The students had positive attitudes to note-taking in classes and used them as their main source of educational materials. Since students' notes are often brief, they do not cover all necessary and required content. Moreover, providing extra learning materials by instructors, such as study guides, are very important.

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