

### Content Analysis of Course Plans Presented by Teachers in the School of Health of Mashhad University of Medical Sciences (2012-2013)

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**Background:** Course plan is among the useful tools to improve the quality of education. This study is conducted to analyze the content of course plans presented by teachers in the School of Health of Mashhad University of Medical Sciences.

**Methods:** In this cross-sectional study, 98 out of 102 course plans of second semester of the academic year 2012-2013 were evaluated. The data was collected using a checklist containing 11 dimensions. Data was analyzed using descriptive and analytical statistics.

**Results:** The average score of evaluation was  $23.2 \pm 3.2$ . A significant correlation was observed between faculty gender, employment status and evaluation scores of their course plans ( $P < 0.001$ ). The greatest shortcomings were related to dimensions of educational assistance tools (64.3%), objectives (51%). The dimensions of Goals in the lesson plans (92.9%), outline (90.8%), gained the highest scores.

**Conclusions:** Most of the course plans contents were in an acceptable level although there is a room for improvement in the quality of the course plan content.

**Keywords:** Course plan, Faculty, Content analysis, Education quality

### تحليل المحتويات لمخططات الدورات التعليمية التي اجريت بواسطة مدرسين كلية الصحة في جامعه مشهد في العام الدراسي ٩٢-١٣٩١ هـ ش

**المقدمه:** إن تقييم المخططات التعليمية تساعد على رفع مستوى التعليم و توضيح وظائف الاستاذ و الطالب. إن هدف الدراسة هو التحليل المحتوي لمخططات الدورات التعليمية التي اجريت بواسطة مدرسين كلية الصحة في جامعه مشهد في العام الدراسي ١٣٩١.

**الابالايه:** هذه الدراسة توصيفيه - مقطعيه اجريت على ٩٨ من اصل ١٠٢ من مخططات الدروس الاختصاصيه في كلية الصحة في جامعه مشهد في الفصل الثاني من العام ٩١-٩٠ تم جمع المعلومات عبر استمارات و تحليلها بواسطة معايير احصائيه و اختبار T المستقل و ANOVA.

**النتائج:** كان معدل التقييم  $23.2 \pm 3.2$  و لم يكن هناك اختلاف زوقيه من حيث اختبار T بين علامه التقييم و وضعيه التوصيف و جنس المدرس ( $P < 0.001$ ). اعلى علامه كانت قد تعلقت به الهدف الكلي للماده (٩٢.٩٢٪). رؤس مطالب الماده (٨٠.٩٠٪). الجدول الزمني للمحاضرات (٨٠.٨٧٪) و اقل علامه كانت لنقصان المعادرات التعليميه (٣٠.٦٤٪) و مجال الاهداف التعليميه و الإبرام في افعال الاهداف (٥١٪).

**الاستنتاج:** اثارنت النتائج ان الى رعايه المحتوا كان جيد. نظرا الى اهميه التخطيط في دوره التعليم و الصيترها في مجال ايجاد الحافز يجب معرفه اساليب التدريس و الاهداف التعليميه. نوصي الممنين بالامران يعيروا اهتمام أكبر في تدوين مخططات المواد الدراسيه.

**الكلمات الرئيسيه:** مخطط دوره. تحليل المحتوا. كفيته التعليم.

### سنه دوپزار دو اور دوپزار تين ميں مشہد ميڈیکل کالج ميں مدرسین کے پیش کئے گئے نصابوں کا جائزہ.

**بيک گراونڈ:** کورس پلاننگ سے تعليمی عمل ميں بہتری لانے اور مدرس و طلباء کی ذمہ داریوں کا پتہ لگانے ميں کافی مدد ملتی ہے۔ یہ تحقيق مشہد ميڈیکل کالج کے اساتذہ کے پیش کئے گئے کورس پلانوں کا جائزہ لیتی ہے۔ یہ تحقيق دوپزار دو اور تين ميں انجام دی گئی تھی۔

**روش:** اس تحقيق ميں ایک سو دو کورس پلانوں ميں سے اٹھانوے کورس پلانوں کا جائزہ لیا گیا۔ یہ جائزہ چیک لسٹ کے ذریعے لیا گیا۔ ڈیٹا کا تجزیہ ٹی ٹسٹ اور اینووا ماڈل سے کیا گیا۔

**نتیجے:** اس تحقيق سے مدرسین کے جینڈر اور ان کے ملازمت ملنے کے بارے ميں کافی اختلاف پایا گیا ہے۔ دروس کے اهداف اور کلاسوں کی ٹائمنگ کو سب سے زیادہ نمبر ملے ہیں۔ تعليمی وسائل اور تعليمی فضا کو سب سے کم نمبر ملے ہیں۔

**سفارشات:** اس تحقيق سے پتہ چلتا ہے کہ کورس پلان مواد کے لحاظ سے بہتر تھا لیکن چونکہ کورس پلان بنانے کے لئے بھی ٹریننگ کی ضرورت ہوتی ہے لہذا تعليمی حکام کو کورس پلان بنانے ميں مزید باریک بینی اور احتیاط سے کام لینا چاہیے۔

**کلیدی الفاظ:** کورس پلان، استاد، تعليم معیار۔

### تحليل محتوي طرح دوره های ارائه شده توسط مدرسان دانشکده بهداشت مشهد در سال تحصیلی ٩٢-١٣٩١

**مقدمه:** ارزیابی طرح دوره‌های آموزشی می‌تواند به ارتقاء فرآیند آموزش و مشخص شدن آن چه وظایف استاد و دانشجو است، کمک نماید. این مطالعه با هدف تحلیل محتوایی طرح دوره های ارائه شده توسط مدرسان دانشکده بهداشت مشهد در سال تحصیلی ١٣٩١ انجام شده است.

**روش ها:** در این پژوهش توصیفی- مقطعی، از تعداد ١٠٢ طرح دوره دروس اختصاصی دانشکده بهداشت مشهد که در نیم‌سال دوم سال تحصیلی ٩١-٩٠ ارائه شده بود ٩٨ طرح دوره مورد ارزیابی قرار گرفت. جمع آوری داده ها با استفاده از یک چک لیست که سؤالات آن آیتم های مطرح شده در طرح دوره بود، انجام گرفت. برای تحلیل داده ها از روش های آمار توصیفی و آزمون آماری t مستقل و ANOVA استفاده شد.

**نتایج:** میانگین نمره ارزیابی طرح دوره ها  $23.2 \pm 3.2$  بود آزمون آماری t اختلاف معناداری را بین نمره ارزشیابی طرح دوره با وضعیت استخدامی و جنسیت مدرس نشان داد ( $P < 0.001$ ) بالاترین نمره مربوط به آیتم هدف کلی درس (٩٢.٩٢٪)، سرفصل درس (٨٠.٩٠٪)، زمان بندی جلسات (٨٠.٨٧٪)، و بیشترین میزان نقصان مربوط به آیتم وسایل کمک آموزشی (٣٠.٦٤٪) و محیطه اهداف آموزشی و لهما در افعال اهداف (٥١٪) بود. **نتیجه گیری:** نتایج نشان می دهد رعایت محتوا در اکثر آیتم های موجود در طرح دوره در حد قابل قبولی بود اما از آنجایی که طرح دوره پیش نیاز یادگیری و راهی برای ایجاد انگیزه، شناخت روشهای تدریس و شناخت اهداف تعليم است؟ پیشنهاد می شود با تاکید از سوی مسئولین امر، رعایت دقت بیشتر در تدوین طرح دوره امری ضروری در نظر گرفته شود.

**واژه های کلیدی:** طرح دوره، استاد، تحلیل محتوا، کیفیت آموزش

## INTRODUCTION

Teaching is a two- sided procedure in which student and teacher interact with each other. Teaching content evaluation is a useful tool for improving education quality, and it is used to judge capacities and weaknesses of an educational program. In fact, evaluating quality of an educational program is a feedback about how the education process was performed in different steps (1).

At present a considerable proportion of Gross National Product (GNP) is allocated to higher education. Assurance of the fact that educational goals, programs, and performances of universities are in correct trend, is a national priority (2). As a building engineer design a map for his work before actual building process, a teacher should design an educational map including content, method, media and training aids before starting to teach (3). Using a standard course planning based on proper scientific principles reduce duplication, diminish haste and delay, provide a logical order, inform the students about their improvement, and instruct how to teach and how to learn (4).

If the educational plans and practices are on time and properly organized, the educational process will be effective (5). This specification made the educational performance more logical and improves the student's motivations (6).

The main goals of lesson plan development are organizing educational activities of an instructor, facilitating learning process for learners, providing a communication way, and also helping educational institutes to assess teacher's performances. Considering the importance of developing a lesson plan, ability in lesson plan development and presenting appropriate lesson plan are required skills for a capable teacher), which all of faculty members of MUMS required to acquire them (7, 8). The following questions must be addressed in every course plan:

- 1- What have students to learn?
- 2- What type of teaching method is used?
- 3- How students will be evaluated? (Evaluation tool and type of questions)
- 4- The time schedule for teaching (how much time)?
- 5- Place of teaching? (3)

Harden believed that teachers should address ten aspects in their lesson plan: 1- The community needs in relation to the training program, 2- Aims and objectives, 3- The Instructional content, 4- Organize content 5- Instructional strategies, 6- Teaching methods 7-students assessment, 8- Relation to certain parts of the, 9- Educational context, 10 management (9).

Hun and Liu also pointed that determining specific teacher, lesson content, teaching tools, teaching method and assessment, are the most important characteristics of a lesson plan (10).

Some studies introduced lesson planning as a main part of preparing teachers for teaching which help them teach better and more effective. (11). in other studies students stated that having a clinical course plan by the instructor can average effect clinical education problems (12).

Studies have shown that the most important factors related to teacher for the best use of time to reach

learning objectives are, teacher skills in employing proper teaching methods, considering students opinion in determining exam time, and providing lesson plan at the beginning of semester (13). Bazrafkan et al. in their research regarding lesson plan concluded that there is a significant relation between lesson plan and educational progress (14). Since lesson plan is the basis for education, has essential role in shaping the learning, and since teaching must be based on scientific principals, it is necessary that lesson plan develop based on academic principles. The present study was conducted with the aim of evaluating content of specialized course plans presented by teachers in 2011 in SOH of MUMS.

## METHODS

In this descriptive and Analytical cross-sectional study all the lesson plans of specialized courses presented in SOH of MUMS were investigated. The list of all specific courses was collected from education office, which based on that their lesson plan was collected from the Education Development Office (EDO). The lesson plans which were not available in EDO, was gathered by contacting teachers. Finally, due to un-cooperation of a few teachers the lesson plans of 98 courses from total of 102 courses were entered the study.

To analyze the content of the lesson plans, a committee included an expert form SOH EDO, and two faculty members were formed. The evaluation was performed by a two part checklist, which was validated in the previous study (15), consist of 16 questions. The first part (5 questions) of the check list included name of educational group, the degree that lesson plan was developed for, academic position of teachers, gender and employment status of teachers (being a faculty member or not) and the second part (11 questions) included questions about existing of course plan introduction (general information), goals, objectives, content and sequences (time table) of the teaching, teaching strategies (teaching method), educational tools, students responsibilities and assignments, student final evaluation method (formative or summative, final and midterm exams) and references of the course. These questions were designed as a Likert 4-scale (good, average, week and not apply with scores from three to zero respectively). Therefore each checklist could have a score from zero to 33. With considering mean and standard deviation (SD), the lesson plans with score between 26.41-33 were considered as good, those with scores between 0-20.01 were considered as weak, and lesson plans between these two groups were considered as average (20.01- 26.41). The collected data were analyzed by SPSS v16 using descriptive statistics (frequency, percent, mean and SD), independent t-test, and ANOVA at 0.05 significant level.

## RESULTS

The mean score of 98 evaluated courses was 23.21 + 3.2. 22.4% of providers were mentors, 75.5% were assistant professor, and 2% were associated professor. Regarding employment statuses 75.5% were faculty member and 24.5%

were not faculty member. 79.6% of instructors were male and 20.4% were female. 17.3% of lesson plans belonged to master degree, 73.5% to bachelor degree and 9.3% to undergraduate degree. T-test showed a significant difference between genders for lesson plan evaluation scores ( $p < 0.001$ ) (the mean score of lesson plan presented by men and women were  $22.74 \pm 3.3$ , and  $25.05 \pm 2.1$  respectively). Table 1 shows the lesson plans content evaluation based on teacher's demographics.

Based on content analysis of lesson plans, items are specified as shown in table 2.

In 25.5% of lesson plans the introduction part had weaknesses; most of them were related to unspecified instructor (33%), and unspecified number of course unit (30.9%) and the least weakness belonged to target group (1%). The result of overall evaluation of lessons plans were as follow 12.2% weak, 74.5% average, 13.3% good.

## DISCUSSION

The present research is a descriptive and analytic cross sectional study in which the content of lesson plans presented by teachers of SOH of MUMS was evaluated.

Results showed that the most weaknesses in lesson plans components were related to describing of following items:

teaching aides, goals, specific goals, student's responsibilities, assignments and way of evaluation. Few studies have been conducted on content analysis of lesson plan, which the most common deficits were as follow respectively: undefined method of student evaluation, style of writing and using inappropriate verbs in specific goals, and not requesting prerequisite course (14-16). However in some studies student duties and assignments, and teaching method had fewer weaknesses (15, 17, 18).

In the present study the overall goals, topics, time schedule, and references items had the best situation among lesson plan items. In Delgoshaei study also overall goals had the best condition among lesson plans items (15). Other studies reported that overall goals and time schedule had the most errors (16, 17).

Some of the present study results are similar to other studies and some are different. The causes of these differences were included the following:

First, there is no unique and standard tool for content analysis of lesson plan or course plan, which leads universities to use different methods for evaluation process and therefore reach heterogeneous results. Some studies indicated that providing standard format to teachers, and supervising the quality of preparing, presenting and

**Table 1. Course plans content evaluation based on teacher's demographics**

		Mean (SD)	P Value	Statistical test
Degree	Undergraduate	26.55 (.0.52)	<0.001	F = 14.5
	Bachelor	22.25 (2.7)		
	Master	25.52 (3.7)		
Academic level	Mentor	23.18 (3.6)	>0.05	F= 1.03
	Assistant professor	23.13 ( 3.09)		
	Associated professor	26.5 ( 4.9)		
Employment statuses	Faculty member	22.58 (3.3)	<0.001	T= 3.9
	Not faculty member	25.20 ( 2.06)		
Department	Environmental and occupational health	22.19 ( 2.6)	<0.001	F= 9.4
	Health and health care management	24.23 ( 3.3)		
	Epidemiology and vital statistics	29.66 ( 0.5)		

**Table 2. Evaluating items of Course plans presented by teachers of SOH**

Item situation	Lesson plan item	N(%)
Items with most weaknesses	Teaching aides	63 (64.3)
	Objectives and problems in writing objectives	50 (51)
Items with the best scores	Definite overall goal	91 (92.9)
	Definite topics	89 (90.8)
	Time frame of teaching sessions	86 (87.8)
Items with most weaknesses	Teaching method	74 (75.5)
	Students responsibilities and assignments	60 (61.2)

performing lesson plans by teachers, are important in providing better lesson plans in universities.

Second is the lack of workshops or the differences in quality of training provided by universities in regard to lesson plan. Soltani in his study stated that performing lesson plan workshop has considerable impact on teachers in cognitive aspects (17).

Third, the probable reasons for differences could be related to difference in sample size, teachers' lack of motivation and having managerial and executive positions by them. results of the Saberiyan et al study showed that despite the fact that teachers believed developing a lesson plan is effective in increasing quality of teaching, but 29.4% of women indicated that the high load of work and lack of knowledge regarding lesson plan preparation, and 25% of men stated that the high load of work and lack of motivation, are reasons for not developing a lesson plan (19). This study also showed that in 64.3% of lesson plans the students responsibilities and assignments are not defined clearly. Delgoshaei mentioned that 40.7% of teachers did not clarify students' responsibilities in their lesson plans. Teachers may provide proper information for students about what they suppose to do before class and therefore prepare them for class (15). Sheikhzade pointed to a few common characteristics about student's participation in teaching process, including:

- 1-The importance of learning style,
- 2- Students participation in teaching process and accepting responsibility of learning,
- 3- Analyzing and critical thinking,
- 4- Interactive and multilateral interaction between students, and between students and teacher,
- 5- Cooperation and group activity instead of learning competitions

However in inactive teaching method, the teacher has the main responsibility, cooperation and interaction between groups does not exist, individual differences is not considered and teaching activity is mainly performed by teachers(20). One study showed that students, who were actively involved in teaching process, were more successful in learning (21).

Results showed that the employment status and gender, affect course evaluation score. Similar study showed that gender is effective but employment status did not significantly changed course evaluation score (15).

Other results of this study showed that there is a significant relation between evaluation score with educational degree that course belongs to, and department (educational group) ( $p < 0.05$ ). The mean of course evaluation score did not show significant differences for academic position of teacher, but Delgoshaei showed significant difference (15).

One of the most important limitations of this study is the limited number of studies about content analysis of lesson plan in country; most of the studies are about lesson plan therefore we confined to use those studies in discussion part. Furthermore since lesson plans of common and practical courses were not provided in time schedule given to teachers, only content of specific courses were evaluated.

Based on this study results the quality of content in most items of lesson plan, were in accepted limit. However since lesson plan is a prerequisite of learning, and it is a way for inducing enthusiasm, recognizing teaching methods and teaching goals; paying more attention to developing lesson plan is essential. Authorities with emphasizing on better development of lesson plan can effectively impact teaching process. For optimize use of lesson plan it is recommended that after performing practical educational courses, it is emphasized that all the teachers provide lesson plans which are developed based on proper writing style and content. This could be an effective step in improving teaching process.

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