

RESEARCH ARTICLE

Higher satisfaction with ethnographic edutainment using YouTube among medical students in Thailand

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Abstract

Purpose: At present, transformative learning is one of the most important issues in medical education, since a conventional learning environment is prone to failure due to changing patterns among students. Ethnographic edutainment is a concept that consists of reward, competition, and motivation strategies that be used to effectively engage with learners. **Methods:** A total 321 first-year medical students took part in ethnographic edutainment sessions in 2011. We defined four preset learning objectives and assigned a term group project using clouding technologies. Participatory evaluation was conducted to assess the delivery of and attitudes towards this method. **Results:** Career lifestyles in the general population and expected real-life utilization of the final product were used as motivating factors, with competition and rewards provided through a short film contest. Nineteen out of twenty groups (95%) achieved all learning objectives. Females were more satisfied with this activity than males ($P < 0.001$). We found statistically significant differences between lecture-based sessions and field visit sessions, as well as ethnographic edutainment activity sessions and other instructional approaches ($P < 0.01$). The results were consistent in male and female groups. **Conclusion:** Ethnographic edutainment is well accepted, with higher satisfaction rates than other types of teaching. The concepts of health promotion and the social determinants of health can be learned through ethnographic edutainment activities, which might help train more humanized health professionals.

Key Words: Health promotion; Learning; Lifestyle; Motivation; Personal satisfaction

INTRODUCTION

It has been speculated that medical education in the twenty-first century will encounter more challenging situations than in the past, including rapid changes the socio-cultural characteristics of medical students, as well as the impact of the generation gap between instructors and students. The learning environment, social determinants, and student collaboration in learning design have been proposed to be vital aspects of medical teaching that can help achieve more effective learning outcomes to respond to global needs [1]. Although there have been many studies assessing the knowledge, attitudes, and ef-

fectiveness of existing teaching methods, there are no studies available on collaborative learning designs among medical students.

In Thailand, the doctor of medicine degree requires a 6-year training period. In our experience, one of the most challenging tasks of medical teachers is to manage large groups of students. Low attendance rates, sleeping, and noisy chatting among bored students are among the top three causes of instructors' reduced motivation for teaching. Some curricula have incorporated alternative strategies to alleviate these problems, such as the use of fingerprint scanning to check attendance rates, more serious discipline, etc. However, the aforementioned strategies seemed to have limited success, while also having negative impacts on the learning attitudes of the students. Ethnographic edutainment is a new concept aiming to increase the opportunities to engage with the learners by exploring the life-

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styles of the population; in the education sector, the similar concept of “edutainment” has been used with the goal of improving students’ attention and learning outcomes [2]. This concept is defined as a teaching method comprised of reward, competition, and motivational strategies. This study aims to translate this concept into practice and present the results from a medical education setting.

METHODS

During the 2011 academic year, in the “Doctor and Society” course for first-year medical students in the Faculty of Medicine, Chulalongkorn University, we instructed 321 medical students in their first semester (4-month period from June 2011 to September 2011). The course introduced medical students to the physician’s roles in society, as well as the importance of the social determinants of health and health promotion. Existing teaching methods used in previous years included lectures, in-class group activities, and field visits to various places, with varying after-class evaluation results from the students.

We incorporated the ethnographic edutainment concept into the teaching plan and implemented three strategies, namely reward, competition, and motivation. The students were divided into 20 groups, with approximately 16 students per group, for the activity entitled “2011 Docsoc Short Film Festival.”

Each group was assigned a term project consisting of an ethnographic study of a specific career in society in order to answer four questions:

- What is/are the lifestyle(s) of the people in the selected career?
- What is/are the health risk(s) of the people in the selected career?
- How do the people in the selected career perceive their health risk(s)?
- What recommendation(s) would you make to the people in the selected career to minimize or avoid their health risk(s)?

Students received a 15-minute instructional overview of health, health risks, and ethnographic research. Ethnographic data collection methods were introduced in a 15-minute discussion, including the document/literature review process, key informant interviews, observation, and visualization/picturization/dramatization methods. The expected deliverable from each group was a short film in avi, wmv, or mpeg format, 7–10 minutes in length. The students were instructed to utilize their time after class to complete this group activity.

The evaluation methods, combining popular social network (i.e., Facebook) and clouding technology (i.e., YouTube), were introduced to the students as follows:

1. The movies were to be uploaded to <http://www.youtube.com>.

Each group was instructed to send the link of their uploaded movie to the instructor no later than one week prior to the last class in order to allow adequate time for all evaluating parties.

2. A three-step evaluation process was used, including evaluations by all students, by the instructor (TW), and by external honorable guests/experts. All evaluations were conducted via Facebook (<http://www.facebook.com/docsoc2011>), which was one of the most accessible social networks among medical students and other people in Thailand.
3. All students were encouraged to voluntarily “add friends” from their Facebook accounts to the docsoc2011 account, which was opened and organized by the instructor (TW), in order to make their friends eligible to vote for one or more of their favorite movies by clicking “Like” on the Facebook page. However, there was no penalty for those who were not willing to do this.
4. After receiving the uploaded links from the students, the instructor placed the YouTube link onto the Facebook wall for all evaluating parties to watch and judge. The students were encouraged to freely vote for their favorite movies by pressing the “Like” button for as many movies as they wanted, based on the objectives of the activity as well as their interests. However, the instructor and external guests/experts, who were invited by the instructor via his Facebook network, examined all movies based on each activity objective and selected their top-three favorite movies. Each student vote counted for one point, and each expert and instructor vote counted for three points.
5. The students were informed that the results of the contest would be announced in the last session of the class at the end of the term, with prizes. The Thai Health Promotion Foundation, which is a non-profit organization for health promotion activities in Thailand, willingly supported the production of souvenirs, such as shirts and caps, for the contest prizes.
6. Additionally, the instructor also informed the students that their outputs would be considered for use as health educational materials for the public.

The students were encouraged to freely nominate the careers of their interest, and, subsequently, voluntarily vote for each group; the processes were facilitated and managed by the students and took 15 minutes.

Students were also advised that they could freely consult and discuss with the instructor during their term project, either in face-to-face meetings or using social networks. After the end of the course, all students were encouraged to provide voluntary feedback about the course and rate their satisfaction on a 5 point Likert scale (1, lowest; 2, low; 3, moderate; 4, high;

5, highest). In order to test whether the ethnographic edutainment concept utilized in this activity was working, we compared the satisfaction scores of this activity with those of the lecture-based sessions, the in-class group activities, and the field visit activities using a one-way analysis of variance (ANOVA). The analysis was conducted using STATA ver. 12 (STATA Corp., College Station, TX, USA). Content analysis was also conducted to extract qualitative data from the students' feedback on this activity, which were presented in a descriptive fashion.

RESULTS

Within four weeks of the first introduction class, all of the 321 medical students (100%) had added friends to the Docsoc2011 page via their Facebook accounts. In parallel, a total of 50 external evaluators participated in this contest after being approached by the instructor; external evaluators were graduates in arts, movies, sciences, business, etc. All groups

sent their deliverables to the instructor on time. The careers and movie links are shown in Table 1; the movies can still be watched.

Instructor and external referee voting and judging with regard to the learning objectives showed that 19 out of 20 groups (95%) fulfilled all objectives, the exception being the security guard group, which did not answer the fourth objective clearly. The popular votes of the medical students moderately correlated with the votes of the instructor and the external referees (correlation coefficient, 0.533). The top five favorites of the medical students mostly used funny plot or dramatization formats; these were the public cleaner, office worker, military trainer, public safety volunteer, and bus hostess films, respectively. From the external referees' point of view, the top five movies were the public safety volunteer, taxi driver, military trainer, motorcycle driver, and public cleaner films, respectively. At the end of the class, the medical students were encouraged to voluntarily and anonymously evaluate the activity; a compari-

Table 1. Short films from the ethnographic edutainment activity sessions [cited 2014 Jan 4]

Group	Career	YouTube URL address
1	Airhostess	http://www.youtube.com/watch?v=hQil5e4P2oY
2	Beer bar girl	http://www.youtube.com/watch?v=qlS7BoZp12g
3	Instructor	http://www.youtube.com/watch?v=3csLO5G1qwk
4	Bus hostess	http://www.youtube.com/watch?v=HNso0154mpg
5	Pharmacist	http://www.youtube.com/watch?v=Bww93SM3T9s
6	Police	http://www.youtube.com/watch?v=pAQOckkOggc
7	Thai massage girl	http://www.youtube.com/watch?v=VGBxnewW_eE
8	Cook	http://www.youtube.com/watch?v=rZcpJuuiMBo
9	Merchant	http://www.youtube.com/watch?v=hKq7_Izbh84
10	Fortune teller	http://www.youtube.com/watch?v=Zyx4_Rg0ybk
11	Beautician	http://www.youtube.com/watch?v=VEFCqmOvk9g
12	Security guard	http://www.youtube.com/watch?v=XF545JwLLDI&feature=youtu.be
13	Taxi driver	http://www.youtube.com/watch?v=jwQze81tJJU
14	Public safety volunteer	http://www.youtube.com/watch?v=OrLk5_v0eqs
15	Motorcycle driver	http://www.youtube.com/watch?v=L7Oyd7s6Gd0&feature=mh_lolz&list=HL1314787777
16	Public cleaner	http://www.youtube.com/watch?v=TYRPYdpScKc
17	Musician	http://www.youtube.com/watch?v=GK0bXV8FZ-8
18	Office worker	http://www.youtube.com/watch?v=ClubaXOTeMg
19	Military trainer	http://www.youtube.com/watch?v=RwmBC2_xPik
20	Convenience store cashier	http://www.youtube.com/watch?v=3xsHeQjyqCc

Table 2. Difference of satisfaction scores for four instructional approaches between 151 male and 165 female students

Teaching type	Satisfaction score (95% confidence interval)			P-value ^{a)}
	Male	Female	Total	
Lecture-based	4.013 (3.972–4.055)	4.000 (3.984–4.016)	4.006 (3.985–4.027)	0.541
In-class group activity	4.073 (4.031–4.115)	4.052 (4.019–4.087)	4.062 (4.036–4.089)	0.463
Field visit	4.140 (4.083–4.195)	4.118 (4.069–4.167)	4.128 (4.091–4.164)	0.567
Ethnographic edutainment	4.285 (4.212–4.358)	4.747 (4.681–4.813)	4.530 (4.475–4.584)	< 0.001

^{a)}Unpaired t-test between male and female students.

Table 3. Comparison of scores by instructional approach and gender

Comparison of scores	Male (P-value) ^{a)}			Female (P-value) ^{a)}		
	Lecture	In-class group	Field visit	Lecture	In-class group	Field visit
In-class group	0.764	–	–	0.616	–	–
Field visit	< 0.01	0.542	–	< 0.01	0.277	–
Ethnographic edutainment	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

^{a)}One-way ANOVA with Bonferroni correction.

son of the satisfaction scores is shown in Tables 2 and 3.

A total of 316 out of 321 students (98.44%) participated in the anonymous evaluation at the end of the course; 151 (48.6%) were male and 165 (51.4%) were female. Four types of teaching methods were evaluated: lecture-based sessions, in-class group activity sessions, field visit sessions, and ethnographic edutainment activity sessions. Unpaired t-test revealed that females rated the ethnographic edutainment activity sessions higher than males, reaching statistical significance ($P < 0.001$). There was no significant difference between genders for the other sessions.

A one-way ANOVA with the Bonferroni correction showed statistically significant differences between lecture-based sessions and field visit sessions, as well as the ethnographic edutainment activity sessions and all other instructional activities ($P < 0.01$). These results were consistent in both male and female groups. From a content analysis of the feedback received from 136 medical students, 120 students (88.23%) stated that the activity was a satisfactory way for them to achieve the learning objectives and understand health risks in the population, based on a wide range of occupations. Twenty-five students (18.38%) stated that the activity was the most interesting and enjoyable of all activities in the course.

DISCUSSION

Our study aimed to apply the ethnographic edutainment concept in practice among medical students. By combining reward, motivation, and competition strategies, the approach produced impressive results in terms of the students' attitudes towards the activity sessions, as revealed by higher satisfaction scores compared to those of other types of activities, as well as strong qualitative feedback. Through the use of these three strategies comprising the ethnographic edutainment concept, the students were motivated by the various career lifestyles in the population, as well as the knowledge that their outputs could be used as public health educational materials in the hospital. At the same time, competition was established through a short film contest with rewards in the form of a score, ranking, and souvenirs. It should be noted that fairness and participatory channels are important issues that should be taken into

account and arranged in advance.

In a prospective study of physician characteristics using SW-OT (strengths, weaknesses, opportunities, threats) analysis, it was found to be a growing trend among medical students to not want to work in community or rural areas, with the rate rising from 25% in 2008 to 29.65% in 2010 [3]. One of the major reasons in that three-year cohort may have been an inadequate understanding of the real-life health-related context of the population. Hence, it is crucial to develop strategies to help medical students better understand real-life contexts and the social determinants of health, with the ultimate goal of turning them into the humanized health professionals of the future.

The ethnographic edutainment concept used in our study was well received, with higher satisfaction from this generation of medical students than other types of activity in the same course. This approach was not only fun, but also achieved the objectives of bringing the students into real-life contexts (i.e., various careers) and giving them the opportunity to practice their skills at data collection, the analysis of health risks related to specific careers, and the synthesis of recommendations to control, prevent, and correct health risks for each career. However, a limitation of this approach is that there are multiple steps that the instructor should carefully prepare beforehand: delivery of a detailed student briefing session about the ethnographic edutainment concept and the activities to be accomplished, preparing and facilitating the use of clouding technologies to be used during the sessions (i.e., social networks, online evaluations for both the referees and the students), and striking a balance among rewarding, motivating, and competition strategies during the sessions.

In conclusion, ethnographic edutainment is well accepted by students, with higher satisfaction rates than other teaching approaches. Health promotion and the social determinants of health can be learned through these activities, which might help train more humanized health professionals in the future.

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CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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SUPPLEMENTARY MATERIAL

Audio recording of the abstract.

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