

# REALIST REVIEW

## A realist review: Impact of interactive lecturing workshop as an act of faculty development program on lecturing skills of faculty members

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### ABSTRACT

**Background:** Health care providers and medical teachers are constantly trained to adapt new teaching methodologies to improve their teaching effectiveness through Faculty Development Programs (FDP). Many studies reflect interventions on faculty development program (FDP). Interactive lecturing workshops as a part of faculty development program have also been evaluated.

**Aim:** The main objective of this paper is the synthesis of evidence to answer the following review question ‘What is the impact of interactive lecturing workshop as an act of FDP on improving lecturing skills of the teachers?’

**Methods:** Four main databases i.e. ERIC, PubMed, Google scholar and PsycINFO were searched for literature. Key words that were used for this purpose were: faculty development program, interactive lecturing and impact of interactive lecturing workshops. The focus of this article was on the improvement of faculty lecturing skills. By applying inclusion and exclusion criteria seven articles were selected for review purpose.

**Results:** Most of the studies show that any intervention with interactive lecturing workshop has a positive impact on faculty members’ lecturing skills.

**Conclusion:** Interactive lecturing workshops meet the demand of faculty development process. This activity is highly appreciated by the participants and these workshops have a positive effect on faculty members as well as students who are more interested in lectures of an interactive nature. However, its effectiveness on organizational level needs to be evaluated.

**Key Words:** Faculty Development Program, Interactive lecturing, Impact of interactive lecturing workshop

**Introduction:** Medical colleges are transitioning from traditional to competence based, self-directed, system-based, case-based integrated curricula. Over the course of time, the role of teacher has been modified and in addition to being an information provider he is now also expected to act as a facilitator, role model, assessor & evaluator, planner and, resource developer. (Harden & Crosby, 2000) Along with the traditional responsibilities of delivering knowledge and skills to the students, teachers are also trained to fulfil additional roles and responsibilities.

In order to train the teachers and enable them to fulfil their additional roles and responsibilities, faculty development program is an essential feature which must be strengthened

(Wilkerson & Irby, 1998).

Faculty development is an emerging and very important field in medical education. A sound faculty development program demands quality time, planning along with financial resources. Multiple seminars and workshops need to be arranged for faculty members in order to train them not only as doctors but also as good practitioners, administrators, teachers, mentors, facilitators, etc. (Kamin, O’Sullivan, Younger, & Deterding, 2001).

Despite the changes in curriculum, the most common way of teaching in medical education is lecturing. Traditional form of lecturing is questioned in literature due to its inability to transfer skills and attitude and to engage students. However, interactive lectures have shown certain advantages. (Gibbs, Habeshaw, & Habeshaw, 1987; Malik & Malik, 2012). As Steinert and Snell said, ‘interactive lecturing is a two-way interaction between a student and a teacher’. Interactive lecture ensures student involvement with the topic, content, subject and area to be taught. Students learn and grasp more knowledge and information by interactive

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lectures as it increases motivation level and interest of the student. This way of delivering lectures also improves learning as well as student-teacher satisfaction level. (Snell, 1999) Regardless of the fact that interactive lecturing promotes learning, many teachers in our medical colleges continue with the traditional teaching strategies for delivering lectures. That is why a sound faculty development program has become a necessity for every medical college. (Kamin et al., 2001)

The change in curriculum demands the establishment of department of medical education (DME) that can regulate and monitor the change. DMEs are also required to facilitate faculty members in order to enable them to meet the demands of new curriculum which is expected to encourage self-directed learning while being integrated and competency based. Faculty development program, its implementation along with periodic monitoring is the most pronounced activity to be done by the department of medical education. (Davidson, 2002)

The main objective of this review was to determine the efficacy of interactive lecturing workshop as a part faculty development program. This review was designed to evaluate whether the faculty development program is fulfilling its aims and objectives, and whether this practice is beneficial for students and faculty members or not. Many studies have already been conducted in order to evaluate workshops regarding interactive lecturing and also its impact on faculty members and their teaching abilities. Faculty development program (FDP) is a broad term in which many programs have been addressed, but this article only focuses on interactive lecturing workshops. For realist studies, seminars, workshops, and/or any courses pertinent to interactive lecturing were included in the study.

**Methodology:** This study is based on a realist review. A realist review is a method to assess evidence on complicated community interventions, that gives a descriptive examination of why they work and why they don't work and how they will work in a specific situation. It counteracts more conventional approaches to systematic review, which have been mainly used and developed for plainer interventions e.g. clinical therapies etc. (Berg & Nanavati, 2016).

Realist synthesis is a qualitative review methodology with an aim to recognize and describe the relationship between situation, outcome, mechanism and context (Wong, Greenhalgh, & Pawson, 2010). The underlying objective of a realist approach is "to clear fundamental program objectives and then to cross-examine the already provided evidence to discover where and why these programs are relevant and creative (Rycroft-Malone et al., 2012). For the purpose of this review, the five practical steps outlined by Pawson (2005) were used:

1. Identify the scope of the review.
2. Search for appropriate evidence strategy.
3. Confirming appropriate article selection and data for study.
4. Isolating and forming conclusion with the evidence.
5. Evaluate, implement and disseminate the data (Pawson, Greenhalgh, Harvey, & Walshe, 2005).

Articles were extracted from PubMed, ERIC, Medline and Google scholar for this realist review. Keywords have been outlined in table 1. Qualitative, quantitative and mixed method researches with peer reviewed articles in English language were included in this review. Conference reports, citations, lectures, opinions, handouts and articles with abstracts only were excluded from the study.

Articles that included students of medicine, dentistry and allied health professions were used. Articles which included students of other under-graduate program were also selected based on their relevance to interactive lecturing workshops. A limitation of our process was that we only included articles published within the last twenty years (1998-2018). The data base selected by the reviewers was ensured and then the articles, journals, studies, were indexed. First of all, reviewers studied the articles list that had been identified on the first attempt. Then inclusion and exclusion criteria were applied. Papers selected for the realist review were considered after applying inclusion and exclusion criteria (Mogre et al., 2014) as shown in Figure 1. After excluding the studies, seven articles were selected for the review purpose as shown in Table 2.

**Results:** As table 2 shows seven articles were selected for the review purpose after applying.

inclusion and exclusion criteria. Initially many articles were identified from online databases i.e. ERIC, PsycINFO, PubMed and Google Scholar. After screening process 110 articles were shortlisted. Then, exclusion and inclusion criteria were applied. Seven articles were identified for review purpose.

This review is based on the findings interpreted in these 7 articles which focus on interactive lecturing workshops as a part of faculty development program. All the studies included in the review interpret that faculty development programs have a positive impact on faculty members' teaching and learning abilities. Whereas, interactive lecturing workshops as a part of faculty development process also have positive impact.

**Table 1:** Keywords used for literature search with number of relevant articles.

Search topic/ Key words	PubMed	Psyc INFO	ERIC	Google scholar
Faculty Development program	12524	238	110	930,000
Interactive lecturing	36	17	13	35,100
Impact of interactive lecturing workshop	14	08	09	763

This activity increases faculty's ability to engage the students and deliver quality content as students learn and perceive more in interactive lecturing environment than traditional one.

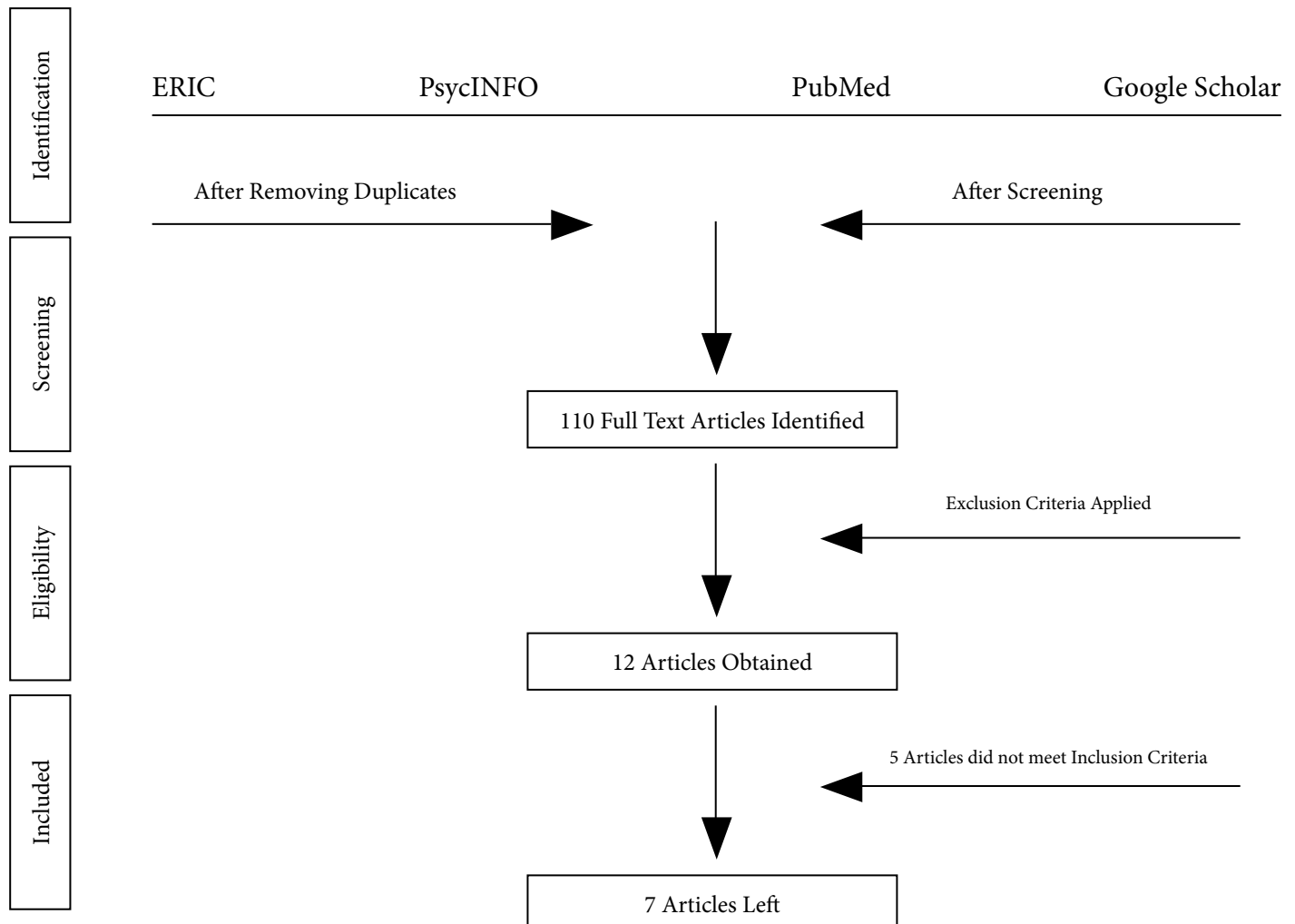
**Discussion:** In this study we presented a realist review on the

effect of interactive lecturing workshop as a part of faculty development program. According to literature, an important component to create and deliver quality teaching through faculty members is faculty development program(Baroffio et al., 2006). We provided view of its effect and whether this practice has benefits or not as many medical colleges and universities are spending time and money on this practice in order to get their faculty members trained. According to the studies, no new strategy or methodology is useful unless and until we reflect on our lecturing skills and abilities(Davidson, 2002).

Lectures are the most common mode of information transfer in medical colleges. Many medical colleges are shifting from traditional curriculum to integrated curriculum, but the tradition didactic lecturing style is still dominant there.

Figure 1: PRISMA flow diagram for realist review

## DATABASE



**Table 2:** Critical analysis of selected articles

Sr no.	Title	Name of Author	Key findings	Year
1.	Effect of teaching context and tutor workshop on tutorial skills.	Anne Baroffio Mathieu r. Nendaz Arnaud Perrier.	Teaching/tutorial skills of the tutors improves by adopting information provided in the workshop. Usefulness of the workshop is manipulated before and after the workshop by the level of performance and environment of the teaching area of the tutors.	2006
2.	The Evaluation of a Workshop to Promote Interactive Lecturing.	Louise Nasmith Yvonne Steinert	Workshop on interactive lecturing have positive impact on lecturing ability of the teacher and also interactive lecture increases student's participation and learning.	2014
3.	A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education.	Angel Centeno Yvonne Steinert Karen Mann	Participants who attended faculty development workshop valued these activities. According to them this activity changes their learning and teaching abilities.	2006
4.	The Role of Interactive Training Skills Courses in Medical Education at the Ankara University School of Medicine.	Erdaozyurda Fulyadokmeci Ozdenpalaojglu	Interactive training has positive effect on the participants.	2002
5.	Strategies for Improving Teaching Practice: A Comprehensive Approach to Faculty Development.	Luann Wilkerson Edd Devid M. Irby	Faculty development program is the more important program now days for faculty improvement.	1998
6.	The efficacy of interactive lecturing for students with diverse science backgrounds.	Hardy Ernst Kay Colthorpe	Interactive lecturing greatly benefits student learning. Evenly, introduction of this activity in short course also provide benefit to them.	2006
7.	Teaching Business Management to Engineers: The Impact of Interactive Lectures.	Meena Ramboscas Musti K. S.	Students had good reviews regarding learning environment held through interactive lecturing. Students learn more in this environment and shows interest in this regard.	2007

Lecturing styles are improving by conducting workshops on interactive lecturing as a part of faculty development program by different medical colleges.

As a result of this review process, two main findings have been made. Firstly, workshops on interactive lecturing designed for faculty members have a positive impact on teaching and learning abilities of the students(Baroffio et al., 2006). Secondly, students' participation and learning by involving student also increases by interactive lecturing(Kamin et al., 2001). Even in large group study, interactive lecturing is a more effective method to teach. Workshops on interactive lecturing are delivered to faculty members with the aim to improve their lecturing and teaching skills However, their effectiveness needs to be evaluated(Kamin et al., 2001). After attending workshops on interactive lecturing, faculty members used this knowledge during their lectures to which students responded positively and also gave good reviews. But the effects of these courses, seminars, workshops on an organization where these faculty members work need to be established(Ernst & Colthorpe, 2007). According to research, students learn more from interactive lectures than traditional lectures. Very few studies have been conducted on the effect of workshops on faculty learning and the effect of interactive lecturing on students. Research shows faculty members are highly satisfied with interactive lecturing workshop as it has made a marked difference in their teaching style. Impact of these workshops have been evaluated by faculty members and student's perception has also been evaluated. Students were asked about faculty's performances during lectures. According to the students, they learnt more in interactive lecturing environment and they

enjoyed participating in this learning environment(Ernst & Colthorpe, 2007). Studies show students stay awake throughout the lecture if it is interactive. Faculty members with no teaching experience learn more by these workshops and are able to deliver more after attending workshops. Interactive lecturing workshop positively affects their lecturing skills. Furthermore, the learning approach by interactive lecturing promotes a community culture environment and enhances learning by integration of educational content with social practices. Student have good reviews about interactive lecturing environment, and they prefer this environment. Perceptions of students propose distinctive learning approaches. Studies show that student's perception can be elevated with interactive lecturing environment, because students grasp the consequence, applicability and relevance of the subject that is important for their professional practices(Rambocas & Sastry, 2017). Interactive lecturing workshops under the program of faculty development are appreciated by the participants and changes in behavior have also been reported after this practice(Steinert et al., 2006).

**Conclusion:** A realist review was carried out in order to provide the evidence of the papers that have already been published on the impact of interactive lecturing workshops which is a part of faculty development process. This activity is highly appreciated by the participants and these workshops have a positive effect on faculty members and students enjoy more in the environment of interactive lecturing. Interactive lecturing gains student engagement and participation. But its effectiveness on organizational level need to be established and evaluated.

**Declaration of interest:**

The authors report no conflict of interest.

**Author's contribution:**

- Dr. Khadijah Mukhtar: Conception and design of the work; & the acquisition, analysis, & interpretation of data for the work
- Dr. Mahwish Arooj: Drafting the work & revising it critically for important intellectual content
- Dr. Kinza Aslam: Drafting the work & revising it critically for important intellectual content

**Reference:**

- Baroffio, A., Nendaz, M. R., Perrier, A., Layat, C., Vermeulen, B., & Vu, N. V. (2006). Effect of teaching context and tutor workshop on tutorial skills. *Medical teacher*, 28(4), e112-e119.
- Berg, R., & Nanavati, J. (2016). Realist review: current practice and future prospects.
- Davidson, R. A. (2002). Community-based education and problem solving: the community health scholars program at the University of Florida. *Teaching and Learning in Medicine*, 14(3), 178-181.
- Ernst, H., & Colthorpe, K. (2007). The efficacy of interactive lecturing for students with diverse science backgrounds. *Advances in Physiology Education*, 31(1), 41-44.
- Gibbs, G., Habeshaw, S., & Habeshaw, T. (1987). Improving student learning during lectures. *Medical teacher*, 9(1), 11-20.
- Harden, R., & Crosby, J. (2000). AMEE Guide No 20: The good teacher is more than a lecturer—the twelve roles of the teacher. *Medical teacher*, 22(4), 334-347.
- Kamin, C. S., O'Sullivan, P. S., Younger, M., & Deterding, R. (2001). Measuring critical thinking in problem-based learning discourse. *Teaching and Learning in Medicine*, 13(1), 27-35.
- Malik, A. S., & Malik, R. H. (2012). Twelve tips for effective lecturing in a PBL curriculum. *Medical teacher*, 34(3), 198-204.
- Mogre, V., Scherpbier, A., Dornan, T., Stevens, F., Aryee, P. A., & Cherry, M. G. (2014). A realist review of educational interventions to improve the delivery of nutrition care by doctors and future doctors. *Systematic reviews*, 3(1), 148.
- Pawson, R., Greenhalgh, T., Harvey, G., & Walshe, K. (2005). Realist review—a new method of systematic review designed for complex policy interventions. *Journal of health services research & policy*, 10(1\_suppl), 21-34.
- Rambocas, M., & Sastry, M. K. (2017). Teaching business management to engineers: The impact of interactive lectures. *IEEE Transactions on Education*, 60(3), 212-220.
- Rycroft-Malone, J., McCormack, B., Hutchinson, A. M., DeCorby, K., Bucknall, T. K., Kent, B., . . . Titler, M. (2012). Realist synthesis: illustrating the method for implementation research. *Implementation Science*, 7(1), 33.
- Snell, Y. S., Linda S. (1999). Interactive lecturing: strategies for increasing participation in large group presentations. *Medical teacher*, 21(1), 37-42.
- Steinert, Y., Mann, K., Centeno, A., Dolmans, D., Spencer, J., Gelula, M., & Prideaux, D. (2006). A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. *Medical teacher*, 28(6), 497-526.
- Wilkerson, L., & Irby, D. M. (1998). Strategies for improving teaching practices: a comprehensive approach to faculty development. *Academic medicine: journal of the Association of American Medical Colleges*, 73(4), 387-396.
- Wong, G., Greenhalgh, T., & Pawson, R. (2010). Internet-based medical education: a realist review of what works, for whom and in what circumstances. *BMC medical education*, 10(1), 12.