

Original article:

Evaluation of Training Session Applying Gagne's Events of Instructions

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Abstract:

Background: This study explores the effectiveness of educator's training programs regarding the presentation, materials, facilities, relevance and usefulness of the training to the current employment and facilitator's knowledge using Gagne's event of instructions. **Method:** A half day long training was conducted on September 2017 at reach of the two health care teaching institutes. At the end of training, evaluation was done and rated in 5 point Likert scale with 5 as the highest score. Participants agreed that the training was useful and relevant to their work. **Result:** This study showed a positive perception of the learners which will help their job performance as well as the outcome of their dental teaching school and Gagne's Events of Instructions can be used when conducting this type of training sessions. **Conclusion:** Regular training program for staff development need to be carried out following a system approach with right mix of input and contents which process with right sequences of instructions to fill the gap between desired performance and actual staff performance.

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Introduction:

Training is an activity carried out mainly to increase the productivity. It bridges the gap between the current performance and the standard desired performance. An effective training program helps to develop the expected knowledge, skills and attitudes of people to perform well on the job. At the same time, training also motivates and inspires people, changes peoples' behavior and their commitment¹. Thus effective training is accountable for improvement of their work performance. Therefore, ongoing training of the employees is an integral part of an organization to fulfill their goals. Training and its regular evaluation helps the organization to achieve the objectives². Teacher training is the basis or the back bone of any education system³. It has been mentioned that trained teachers have contributed to improve positive public image of schools. Training contributes in building the confidence among teachers through learning additional knowledge and skills⁴. New teachers are unprepared because what they learned was out of touch with the real world of teaching encountered in schools. Therefore, it is difficult for the novice

teachers to balance classroom management and workloads with survival and performance. Inadequate training makes them frustrated for the vast demands of teaching⁵. Teachers are one of the basic and essential elements in the whole process of education. Therefore, effective teacher education ensures the quality of education^{3,6}.

In Bangladesh, Dental Education Curriculum is a five year course and producing significant number of dental practitioners every year. Bangabandhu Sheikh Mujib Medical University (BSMMU), and Sapporo Dental College (SDC) are two renowned health care institutes carried out regular training sessions in order to upgrade and promote tomorrow's professionals who are responsive, experienced, and competent. On September 2017, training sessions on review and development of dental curriculum were held in BSMMU and SDC as a part of continuous professional development activities. The sessions were conducted by a dental faculty expert from a Malaysian University who shared knowledge and experiences on Malaysian dental curriculum using Gagne's events of instructions. Robert Gagné, a

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remounted educational psychologist, proposed a series of nine events which follow a systematic instructional design process with a focus on the outcomes or the behaviorist approach to learning following the instructions or training⁷. Instructional events are the activities of both teacher and learners during the teaching /training session. The nine events of instructions are (1) gaining attention (2) informing the learner of the objective (3) stimulating recall of prerequisite learning (4) presenting the stimulus material (5) providing learning guidance (6) eliciting the performance (7) providing feedback (8) assessing the performance (9) enhancing retention and transfer. Choosing proper events and planning them in the right setup and the right sequence is vital in a successful lesson or training design. The objective of this study was to evaluate the training session conducted at BSMMU and SDC, Dhaka applying Gagne's events of instructions.

Materials and Methods:

It was a descriptive study conducted on two half day long trainers' training sessions held in BSMMU and SDC, Dhaka Bangladesh on late September 2017. Participants were 74 faculty members from the two institutions who attended the sessions. A questionnaire was prepared to evaluate the training sessions which contained materials related to nine events of instructions as proposed by Gagne⁷. Besides the nine instructional events, the questionnaire also included the items on satisfactions and dissatisfactions of the participants regarding the usefulness of the training, acquiring new knowledge by participants and on speakers' knowledge, understanding, and enthusiasm, use of relevant examples and technique, responses to audience questions, organization and preparedness of the topic. Before application, the questionnaire was pretested and finalized accordingly. The instructional events and other items used in the questionnaire were measured by using a 5-point Likert scale as: 5 = Fully agree/satisfy, 4 = Agree/satisfy, 3 = Unsure, 2 = Disagree/dissatisfy, 1 = Fully disagree/dissatisfy. At the end of training sessions, the participants were asked to complete the evaluation form. Data were collected and analyzed with agreeability-disagreeability and with satisfaction-dissatisfaction. Descriptive statistics were calculated for all the items and data were presented as number and percentage distribution.

Ethical clearance: The study was approved by ethics Committee of Bangabandhu Sheikh Mujib Medical University.

Results:

Table-1 revealed the demographic profile of the participants where 50% participants were from BSMMU and 50% from SDC among the total 74 participants. The table also revealed the gender distributions of the participants.

Table-1: Demographic profiles of the participants (n=74)

Gender	BSMMU (n=37)		SDC (n=37)		TOTAL (n=74)	
	n	%	n	%	n	%
Male	16	43	19	51	35	47
Female	21	57	18	49	39	53

Table-2 showed the agreeability and disagreeability of participants regarding the instructional events. Majority agreed with the statement that facilitator captured the attention of audience; objectives were relevant and were informed earlier, recalled prior learning, clearly delivered & explained with example, guided for better understanding, elicited performance, provided feedback, assessed new knowledge and summarized the topic before ending and recommended further readings.

Table-2: Agreeability and disagreeability of participants regarding the presentation and instructional events (n=74)

Instructional events	Scores		
	Agreed	Unsure	Disagreed
(1) Gaining attention	70 (94)	2 (3)	2 (3)
(2) Informing the learner of the objective	72 (97)	2(3)	0
(3) Stimulating recall of prerequisite learning	55 (74)	15 (20)	4 (6)
(4) Presenting the stimulus material	68 (92)	6 (8)	0
(5) Providing learning guidance	71 (96)	3 (4)	0
(6) Eliciting the performance	72 (97)	2(3)	0
(7) Providing feedback	52 (70)	20 (27)	2(3)
(8) Assessing the performance	60 (81)	13(18)	1(1)
(9) Enhancing retention and transfer	68 (92)	4(5)	2(3)

Table 3 showed the participants' satisfactions regarding the usefulness of the training to the current employment and facilitator's knowledge. Regarding its usefulness, 97% agreed that it is useful for their current work while 82% agreed that they acquired new knowledge, attitudes and skills. More than 95% of the participants satisfied on the speakers' well organization and well-preparedness and agreed that the speakers were knowledgeable, enthusiastic, effective in response to audience questions and exhibited a good understanding of topic.

Table-3 showed satisfactions and dissatisfactions of the participants regarding the usefulness of the training, acquiring new knowledge and on speakers' knowledge, enthusiasm, use of relevant examples, response to audience questions and organization.

Satisfactions of participants on	Satisfied	Unsure	Dissatisfied
well organization and preparedness of the speaker	74 (100)	0	0
speakers' knowledge and enthusiasm on topic and related issues	72 (97)	2(3)	0
acquiring new knowledge, attitudes and skills by participants	61 (82)	12 (16)	1(1)
practical examples and techniques applied relate to participants' work	64 (86)	8 (11)	2 (3)
speakers' effective response to audience questions and comments	71 (96)	3 (4)	0
overall usefulness of the training sessions	72 (97)	2(3)	0

Discussion:

This study was conducted to assess the effectiveness of the training session in line with Gagnes nine events of instructions. Gaining attention of the learners is the first event and it is very important ingredient for effective learning. So, for any learning to take place, their attention must be gained and their interest should be aroused. This study revealed that

94% of the participants agreed that the presenter gained the attention. Here, objectives were clearly spelled out as stated by 97% of the participants, which was a good starting point. Early in each training session participants should encounter a list of learning objectives which initiates the internal process of expectancy and helps motivate the learner to complete the session.

Connecting new information with prior knowledge facilitate the learning process⁷. Seventy four percent participants of this study felt that there was prior recall of learning. Content should be organized meaningfully, and explained and demonstrated using a variety of media⁷. The content in this study was delivered clearly with relevant examples, as stated by 92% participants. Providing learning guidance is an important practice that affects students' life and particularly their academic performance⁸. In this present study, 92% participants opined that they were guided adequately for better understanding. Eliciting performance is an event of learner, where they required practicing the new skill or behavior. Ninety seven percent participants agreed that they were involved in this event. Providing feedback is an important event of instruction. While observing learners' performance, immediate feedback and guidance is important and any questions can be answered. Seventy percent of the participants in this study felt that feedback was provided. To enhance retention, the session can be closed by reviewing the key points, answering the questions and asking for learners' feedback. Ninety two percent participants agreed that presenter summarized the topic before ending and recommended further readings.

Ongoing training is essential to keep updated the participants' knowledge, understanding and practices. Effective training has immediate and long-term impacts on the trainees. The immediate outcomes include learning, skill development, and positive behavior change while the positive long-term impacts are on job performance and organizational outcomes such as increased profitability and reduced turnover⁹. In this study, 97% of the participants showed satisfaction on the usefulness of the training to them. Total 82% participants were satisfied with the training and felt that they had acquired new knowledge, attitude and skills (Table-3). This positive perception of the learners will help their job performance as well as the outcome of their dental school. As it is mentioned earlier, training programs are the stimulant for the workers to improve their performance and capabilities, which subsequently

increase organizational productivity. Therefore, training should be designed on the basis of firm specific needs and objectives. Effective training is the thoughtful intervention designed at attaining the learning necessary for upgraded employee performance¹. In this study, the training session found that the facilitator was efficient and able to maintain audiences' attention during the entire presentation. More than 90% participants satisfied and agreed that the facilitator was well organized and well-prepared, knowledgeable, enthusiastic, and exhibited a good understanding of topic and related issues and responded effectively to audience questions and comments. Participants were highly satisfied on the presentation and perceived that the training contained the practical examples and useful techniques that applied to participants' current work and was very useful (Table-3).

Effective training is one of the important factors for the competency of the employees to fill the gap between desired performance and actual staff performance. The deficit in performance can be relieved by appropriate training. Trainers' personal and professional interaction represents first impression on trainees¹⁰. Inputs, processes and outputs are system approaches in education and training, and for an effective training they must be relevant and there must have the right mix of objectives, contents, methods and assessment aimed to produce competent and confident health care providers¹¹. Objectives are statements of desire which we expect to be achieved by our learners at the end of any educational programme. Well written learning objectives are the heart of any curriculum. Objectives should

be SMART, an acronym for specific, measurable, attainable, realistic and time-bound. If the objectives are constructed clearly then the outcomes, which are the products or end results of any programme can be pre-specified¹². This study confirmed that training has a positive impact on the participants. Regular staff development training program should be conducted following a system approach with right mix of input and contents which also need to be processed with right sequences of instructions and assessed based on objectives in order to ensure optimum performance of the staff.

Conclusion:

This study confirmed that training applying Gagne's instructional events provide a great deal of valuable information to teachers and trainers and has a positive impact on the participants. Medical and health care institutions in particular and other educational institutions in general, should conduct regular staff development training program applying Gagne's nine events of instructions as a guidance to ensure optimum development and performance of the staff and thereby ensure a sustainable educational and organizational development.

Conflict of interest: None

Author's contribution:

Data gathering and idea owner of this study: Nurul Islam, Abdus Salam

Study design: Nurul Islam, Abdus Salam

Data gathering: Nurul Islam, Abdus Salam

Writing and submitting manuscript: Nurul Islam, Abdus Salam

Editing and approval of final draft Nurul Islam, Abdus Salam

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