

# Participatory meeting: a new educational program based on bottom-up learning approach

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A substantial part of the training program for cardiology residents includes several hours per week of face-to-face teaching. Since the beginning of the pandemic, most of these activities in universities have been conducted virtually using one of the available secure and reliable video platforms.

The traditional and most used educational method is top-down education. The teacher guides the instruction, focuses on what the students ‘need to know’, and transmits the knowledge to the fellows, then verifies the learning. Unfortunately, this method does not stimulate critical thinking skills and creative ability and does not always represent what the fellows ‘want to know’.

A recent study showed that 46% of grants reviewers paid less attention to videoconferencing meetings in 2020 than in the previous year, with 51% worse engagement: a phenomenon described as ‘zoom fatigue’.<sup>1</sup>

On the other hand, participatory practices at work change attitudes and behavior. In experiments done in Chinese factory workers and American university staff, small adjustments to people’s experience of participation in the workplace had shifted these attitudes 1 month later.<sup>2</sup>

Furthermore, the COVID-19 pandemic had an unparalleled impact on the education, formation and mental state of cardiologists in training.<sup>3</sup>

It should be pointed out that the pandemic has kick-started the innovation of online video education and formation in a major way. This has been a huge accelerator for searching new educational models.

Therefore, whether in face-to-face meetings or even more in virtual conferences, there is a need to mitigate the limits of top-down education and fatigue zoom.

A new additional model of education has been implemented at the University Magna Graecia, Board of Cardiology, in conjunction with the University of Trieste to develop education from the bottom up. The topics that have been chosen are those of the training program in cardiology and those necessary to complete the training period.

A participants list of 77 fellows-in-training of two universities (Catanzaro and Trieste) and a panelist list of three teachers of the Board of Cardiology were then created. The topic of the first digital event was ‘Myocarditis’. Each fellow was asked about one topic/question (Fig. 1). All selected arguments were pooled, and participants were asked to vote for the best five. Therefore, a pyramid of priorities and the first 15 topics/questions were selected and, 3 days before the event, assigned to the three panelists, based on specific expertise. Then a 1.15 h zoom session was opened at 7:00 a.m., and all participants were invited.

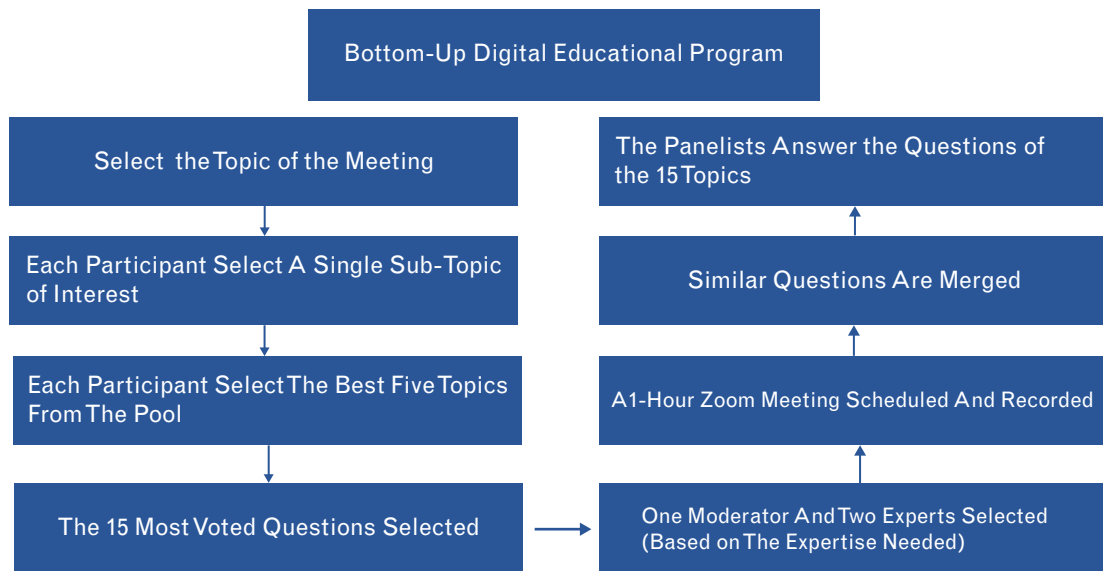
On the day of the digital session, the fellow authors of the first 15 questions read the question by his/herself, then the moderator entrusted the answer to one of the expert panelists.

In the end, a survey was carried out to assess the degree of satisfaction of the participants. Overall, the participants positively evaluated this new didactic-training strategy with 98% of them thinking that this form of training had been useful for increasing knowledge. Sixty-six percent of the respondents found the answers to the questions from experts useful and 89% thought that this interactive modality is superior to the classical form of teaching; 69% believed that the attention during the lesson was higher than in the standard model. With this new form of education, zoom fatigue was felt in the population examined in only 11% of cases; 69% of the participants would like 50% of the training activity in interactive mode and 79% believe that it should also be applied face to face.

Participatory research has also recently been used to address social and health inequalities in adolescent populations.<sup>4</sup>

Participatory action research and appreciative inquiry strategies were indeed used as part of the annual program evaluation to examine transition year residents’ perceptions of the value of the program.<sup>5</sup>

Fig. 1



Work- flow chart of key steps involved in participatory meeting organization.

With this new approach, the student starts with a question of the selected topic, performs self-directed research or experimentation, and, finally, arrives at explicit knowledge. The general rule of this approach is that participants are the producers and deeply involved in the treated topics. Furthermore, the advantages of this method are to teach students how to seek knowledge on their own, even outside the virtual event, and to stimulate them to pursue their specific interests.

In conclusion, this new bottom-up educational program presented here could be a valuable teaching aid in the training trajectory of the new generation of physicians.

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### Conflicts of interest

There are no conflicts of interest.

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