

The 5X2 Backward Planning Model for faculty Development

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Abstract

Faculty are considered to be the backbone of any institute and their training and development are necessary for progressive growth of an educational organization. This necessity has been the focus of a lot of medical education research, resulting in a number of faculty development models concentrating on the methodology of program planning and implementation. Such models are mostly linear considering faculty development to be a onetime measure. However, there exists a clear distinction between faculty development and faculty training and in its true sense faculty development should emphasize on individual faculty growth over the long term synonymously with direct short-term goals related to faculty work. This idea encouraged us to develop a new model for FD to reinvent the way we approach faculty development and consider FD as a continuous cyclical process, rather than just a linear model. We conducted a qualitative study based on phenomenological observations, leading to the development of the 5x2 backward planning model. The model essentially consists of the following interchangeable stages; Decide stage (focused on decisions related to the context of the program and the kind of faculty attending it) Define stage (concerned with defining the needs of the program and its objectives); Design stage (concentrates on design of the material and the methods of delivery for the identified objectives); Direct stage (directing both the learning and development of faculty and establishing a community of practice) lastly, the Dissect stage (focusing on scrutinizing the fulfillment of the objectives and the developmental KPIs.)

1. Background

The faculty of any educational institution can be described as the pillars that provide support to its structure. By virtue of this description faculty development is the art of building bricks one by one over a long period of time into the construction that makes the faculty or the pillars. Faculty development reflects a conscious effort to recognize the skills necessary to succeed in academic medicine and to set about attaining them in a planned and paced manner. It is an endeavor pursued over the entire span of one's career and should be consciously integrated into daily activities.¹ Faculty are humans with a profession and it goes without saying that in order to build faculty, the existing development needs must coexist with institutional needs and individual needs.²

Historically, however, The earliest forms of faculty development focused on improving didactic and clinical teaching¹ usually provided by individual academic departments and supplemented by university-wide programs. More currently, The focus of these training needs, has become multifold, including the development of new teaching skills or assessment techniques, improved ways of designing or implementing curricula, newer ways of viewing the student–teacher relationship, and increased commitment to the educational perspectives³. In a 2012 article, Masadeh,⁴ concludes that training is a planned process with content based interventions, resulting in immediate impact for a particular role or job being done at present. Development on the other hand, is broader, it is meant for future impact and

can incorporate a wide range of activities, including coaching and more formal educational commitments and experiences.

Sullivan and colleagues in 2011,⁵ even proposed a model for faculty development research suggesting that faculty development in the workplace was rooted in two communities of practice (the faculty development community and the workplace community) and that the desired change, required the interaction of four primary components (facilitator, participants, context, and program) with their associated processes (mentoring and coaching; relationships and networks; organizations, systems, and cultures; and tasks and activities)—all in the workplace. A BEME guide by Steinert and colleagues⁶, included more than 111 studies, between 2002 to 2012 on faculty development plans. Key features of these initiatives included evidence-informed educational design, relevant content, experiential learning, feedback and reflection, educational projects, intentional community building, longitudinal program design, and institutional support. The Dittmar and McCracken⁷ META model from 2012 also gives consideration to organizational structure; Developing a community of practice for self-reflective practice and continuous professional development and Developing communication practices, which would also update faculty about policies and models for effective practices.

Most existing faculty development models focus on the methodology of planning and implementing the program. An extensive literature search did not bring to light any models that work on the planning of the FD program in a backward planning approach with the end in mind. The use of the linear models for development of FD program is extremely useful considering the FD a onetime event that ends with the end of the program. This fact is not true considering the definitions of training and development that we found in the literature, showing the clear distinction between Faculty training and faculty development. Thus, the need for a new model for FD arises to reinvent the way we approach faculty development and consider FD as a continuous cyclical process, rather than just a direct one time measure.

2. Methodology Development Of The Model

Our work was qualitative in nature, based on phenomenological observations.¹⁰ keeping this in mind we designed our model referencing the 5Ds cycle of Appreciative Inquiry.¹¹

To develop, this model, we also utilized the backward planning approach, previously used in engineering education,¹² language teaching¹³ and recently in the development of maxillofacial surgery curricula¹⁴. The basic concept was to allow for envisioning of the product of faculty development as a starting step for planning and then proceeding backwards. This process was thus different from the established approach, where faculty development needs assessment is primarily the first step.

To this end, we identified at first the criteria of what we would call a good faculty development experience. This was done through a series of focus groups with participation from the 14 schools' representatives who were a part of a government reform discussion in Egypt to redesign the linear approach to planning a FDP. The protocols of focus group required participants to aliterate on the

discrepancy between how they develop faculty development programs and how they report this process. They were asked how much they think that the actual plan for development relies in needs assessment and how much information they can elicit from a need's assessment. Participants were also asked how needs assessment was done in their institutes and how data from needs assessment was analyzed. These FGDs ended in a list of 72 attributes of a good FD experience

The 72 attributes helped in the development of the 5X2 backward planning model. This model was presented to an audience of international educators. It included both open and close ended questions in relation to the model and its utility. Various themes were generated from the open ended questions.

Among these themes are:

- FD programs are not appealing to faculty because there is no legislation to mandate the training
- FD programs that exist and are mandated do not offer any added value to faculty
- FD programs do not have a selection criteria for attendees
- 2 or 3 day workshops offer information that results in no actual change in behavior
- No support system is offered through existing FD programs
- No true evaluation of training impact is done
- Trainees are not treated as an active part of the design process

3. Description Of The Model

3.1 Stages of the 5X2 D cycle

1- Decide

This is the stage where two important decisions need to be made reference the emerging FD program; the context and the Choice of the faculty who will be attending the program. These two decisions have to be planned backwards starting from the characteristics of a good faculty development program model.

Decisions on the context will be basically driven from the objectives of the faculty development and the identified needs of the institution.

Decisions on the faculty group who will attend specific segments of the training will be done on the 4 quadrant model that maps faculty based on two dimensions (knowledge and awareness) into 4 categories each of which will be targeted by a specific collection of training topics.(fig 2)

2- Define

This is the stage where two definitions have to be made; The Needs (institutional and professional) and Objectives have to be defined as well formulated from the needs.

The needs can be collected through a traditional needs assessment designed separately for each group of faculty mentioned above. Data collection methods will be the same as any standard needs assessment study including: questionnaire, focus groups, interviews etc.

When assessed the needs are identified as either institutional or professional needs each of which can be assessed by targeting the proper stakeholders.

Once needs have been validated, they are then developed into training objectives. These objectives are stratified in relevance to the faculty group as mentioned above.

3- Design

This stage offers the design of both the material and the methods of delivery of each of the identified objectives. It is in this stage that we make assumptions regarding the best and most feasible possible approach, platform, structure and method.

4- Direct

Two essential issues need to be directed in this phase; the learning and development on one hand and the growth and establishment of the community of practice on the other. This is the phase that needs the most concentration and follow up. The amount of direction given will determine the stability and effectiveness of aspects of the curriculum with its proper subset and its hidden subset.

The follow up plan used to direct each of the above two subsets will be based mainly on the identified KPIs that will be established later on in the Dissect phase.

5- Dissect

The fifth D phase is the stage of the scrutiny and when questions should be raised regarding two issues: have we fulfilled the developmental KPIs or not and have we tackled all Intended Learning Outcomes or not.

3.2 The Interchangeability in order of phases:

Each of the stages requires a revisit for the preceding phase and a projection into the consequent phase.

When deciding on the context of the training a revisit needs to be made to ILO achievement results.

When deciding on the faculty groups to attend each subset of the training a reflection needs to be made on the achieved KPIs in the dissection phase.

The two decisions have to be revisited after the needs and objectives are defined in the consequent phase.

When defining the needs, a reflection should be done back on the faculty mapping

When defining the objectives of training a reflection needs to be done on the context identified in the Decide phase.

These two definitions will be consulted again and revised after the program is designed in the next step

When designing the content a reflection needs to be made on the needs defined in the Definition phase.

When designing the methods reference should be made to the objectives.

While directing the learning and community of practice the design will be revisited and reevaluated again. When follow up is done a projection is usually also happening to the prospective needs and objectives of training.

4. Results And Reflections

4.1 Establishing the need for a new model:

Out of the focus groups a few themes were identified:

4.1.1 Faculty development planning is not linear

The first focus group discussion was focused on the concept that Faculty development is not a linear development process. 90% of participants agreed that they closely follow normal sequence in designing faculty development programs whereas only 10% said that they only try.

Also 50% of participants said that they choose objectives and content altogether not separate.

Regarding the revision of the objectives after designing the material 80% reported that they revise objectives.

To the question about the revision of the content based on who will be, attending 100% responded that they do.

4.1.2 Needs Assessment is not necessarily the first step

When asked about needs assessment and whether or not it is usually useful, half the participants reported finding the results of needs assessment not useful while 20% thought it was of minor value.

4.1.3 Faculty as Stakeholders

Participants of the study under reported the actual use of feedback when they go back to revisit faculty development plan. The feedback they receive is either rarely useful and many times it is off the point and directed towards individual views. Only 40% of respondents felt that faculty feedback fed well into re-planning of their FD programs.

The same situation was perceived when they were asked about using needs and objectives to readjust FD programs.

4.2 Feedback on the model

The group of experts highlighted the utility of the model in a number of areas. The following are the major findings in the open ended section of the questionnaire.

4.2.1 Flexibility:

“The model is different in that it offers a flexible view on faculty development rather than a step by step guide”

4.2.2 Inclusiveness:

“This is not just a model to conduct needs assessment or to plan, rather a complete guide for the process from the beginning to the end”

4.2.3 Needs oriented:

“The great thing is that the needs are all studied including the needs of the institution in addition to the individual. During reform people rarely know their own needs”. According to literature, the success of any faculty development initiative depends on several key factors: identification of the specific needs of faculty members¹⁵.

4.2.4 Faculty as stakeholders:

“The beauty of this model is that it allows for an understanding and mapping of the beneficiaries of the faculty development program and treats them as different stakeholder groups. This is the problem with most development plans, dealing with faculty as one cohort and assuming that they should all be subject to the same development plan”.

Declarations

Ethical Approval: Was sought from the Ain Shams University Faculty of Medicine IRB Committee was granted dismissal

Participant consent: All participants were given the right to participate and consented participation in all forms if data collection. They were given the right to withdraw from the study at any point of time.

Authors declare no competing interest.

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Figures

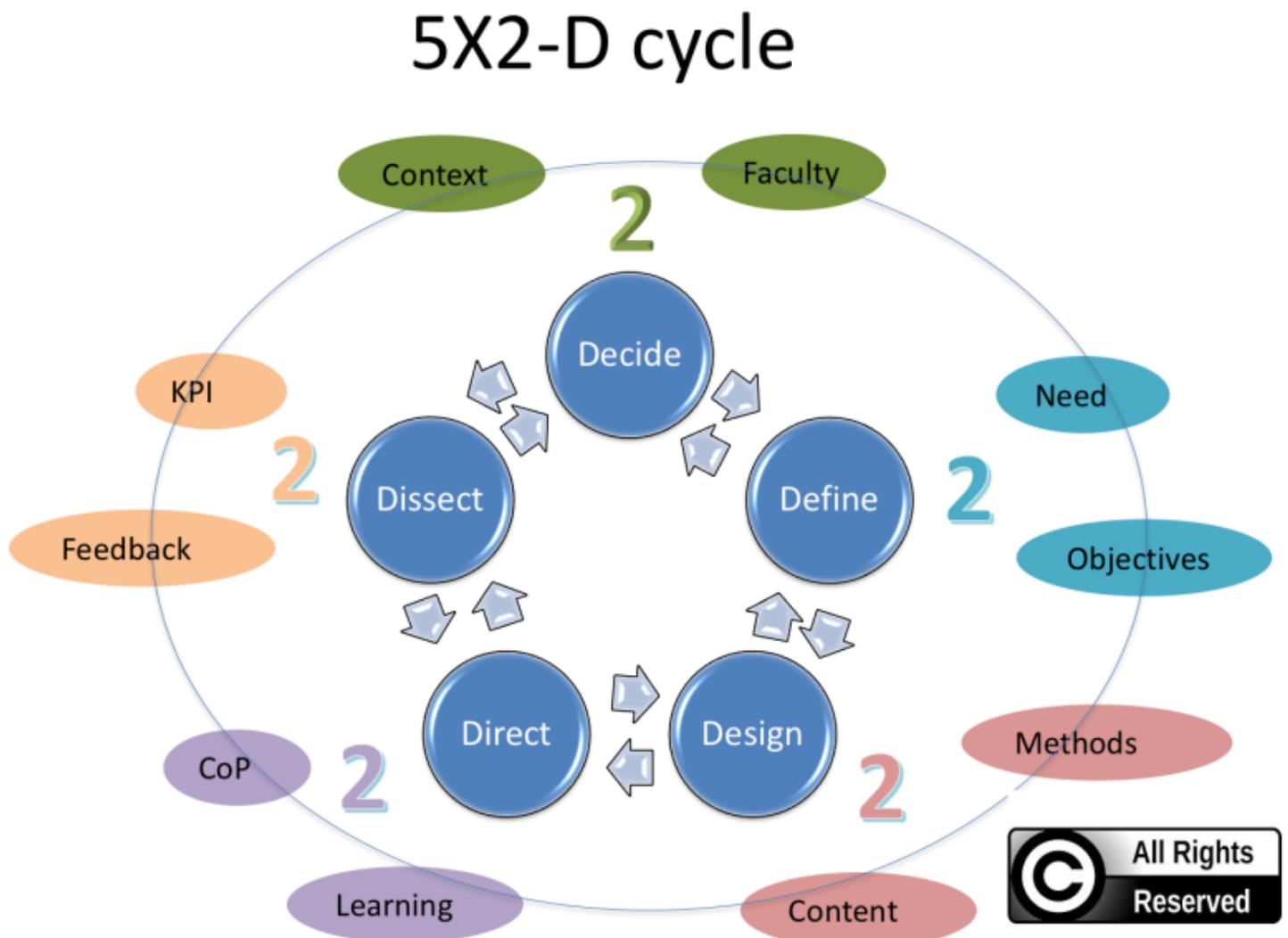


Figure 1

5x2 D- backward planning Faculty Development Model (original)

Faculty Choice Framework

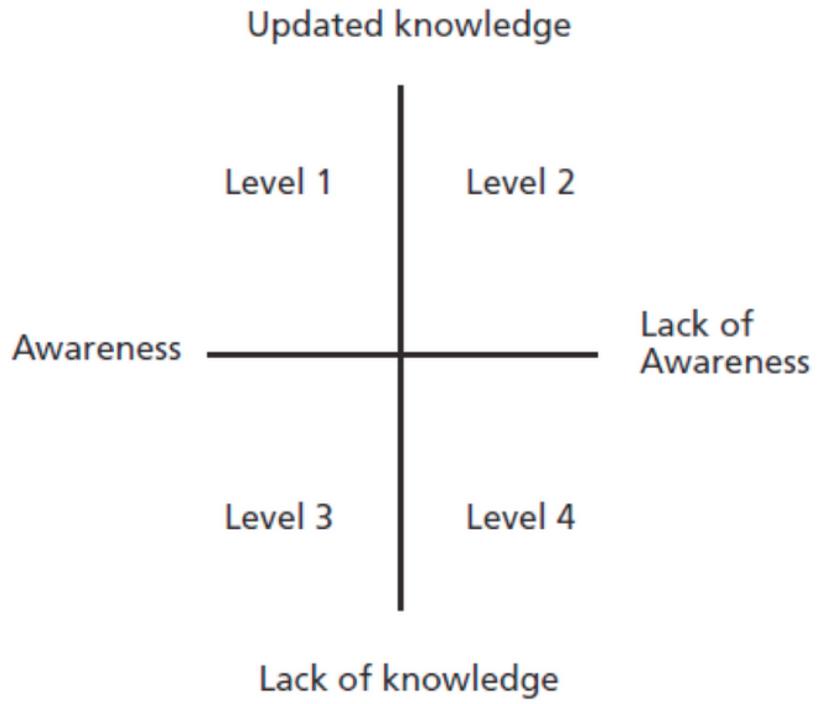


Figure 2

Faculty Choice framework (original)