TEACHING IN THE MEDICAL SETTING: BALANCING TEACHING STYLES, LEARNING STYLES AND TEACHING METHODS

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Introduction

Effective teaching in medicine requires flexibility, energy and commitment amidst a busy background of clinical care.

Successful medical teaching also requires that teachers are able to address learners' needs and understand the variations in learners' styles and approaches. Teachers can accomplish these requirements while creating an optimal teaching– learning environment by utilizing a variety of teachingmethods and teaching styles. If teachers use a variety of teaching methods and styles, learners are exposed to both *familiar* and *unfamiliar* ways of learning that provide both comfort and tension during the process, ultimately giving learners multiple ways to excel. As Hemesath and colleagues have suggested (1997), new instructional methods are critical

as medical school curricula are changing. Others have mentioned the importance of using a variety of creative, nontraditional teaching techniques and strategies in clinical teaching (Handfield-Jones *et al.*, 1993; DaRosa *et al.*, 1997; Wilkerson & Sarkin, 1998). Grasha (1996) suggests using varied teaching styles to address the diversity of learner needs. Using a variety of teaching methods and styles ultimately may encourage adaptability and lifelong learning in the teaching–learning process. This paper, supplemented by a related website, will provide a conceptual framework and an expanded compendium of teaching styles and teaching methodologies which can be used in different clinical settings. The website (medicalteacher.org) features descriptions of preceptor-teaching styles, learning styles, and teaching and learning style 'clusters' followed by a detailed description of a variety of teaching methods which can be used in the medical setting.

Teaching styles

We as teachers have preferred teaching styles with which we are comfortable and revert to in chaotic situations. Numerous models of teaching style are available. For example, Biba ce (Biba ce *et* al., 1981) refers to a continuum of teaching styles which include the styles of assertive, suggestive, collaborative and facilitative (progressing from teacher centered to learner centered). Montauk & Grasha (1993) outline five positive preceptor styles with a similar progression which include expert, formal authority, personal model, facilitator and delegator (see Table 1 on

website). These styles are associated with particular teaching roles, attitudes, behaviors and preferred methods and tend to complement certain preferred learning styles as described below. Adopting particular teaching styles

requires several considerations: learning style of learner, capability of learner, maintenance of productive interpersonal relationship with learner, type of setting, content and comfort/conceptual base of preceptor. Adaptability to all teaching styles is an important tool that prepares preceptors for a variety of teaching conditions where we can

appeal to a greater variety of learners.

Learning styles

Given the option, many learners would prefer to remain within their 'comfort zone by utilizing their dominant learning style (Partridge, 1983). Preferred learning styles have been identified and described by Grasha (1996) and include independent, dependent, collaborative, avoidant, facilitative and competitive. Table 2 on the website includes a description of Grasha's learning styles with their associated advantages and disadvantages. Each of the learning styles tends to coincide with certain teaching styles so that the resulting dyad draws on the strengths and voids the weaknesses of both the teaching style and the learning style. Grasha has termed these complementary styles 'teaching style clusters' (see Table 3 on website). Although there is some benefit to matching teaching

style to learners' dominant styles (Highfield, 1988; Rezler & Resmovic, 1981), there is also research to show that providing creative teaching/learning style mismatches, which requires students to experience the less dominant

qualities of their learning styles, stimulates learning and flexibility in learning (Grasha, 1981; Partridge, 1983; Baker *et al.*, 1988 Cavanagh & Coffin, 1994; Kowoser & Berman, 1996). If teachers always match a learner's preferred style, it is highly probable that learners will become bored with the learning environment. Educational research suggests that optimal learning must involve a certain degree of tension and disequilibrium, and learners need to be 'stretched' somewhat to learn (Dember, 1965 Grasha, 1972, 1981). Sometimes educational objectives

dictate which teaching style and learning style will be the most effective. For example, one cannot learn to do procedures or interview patients effectively by reading texts. Furthermore, some teaching and learning styles may not be appropriate for specific environments. For example, the emergency room or a busy office is not the place for slow, reflective processing. The most effective learners are able to adapt to the style which the learning situation requires. Teachers can help them develop strategies for adapting to differing situations, especially when learning styles do not fit the task. One method is to teach the learner to use his/her strengths in creative ways. An example is helping an overly competitive learner to develop collaborative skills by making him/her responsible for running a small-group session in which all members

are encouraged to participate. Another example is helping a visual learner learn how to interpret ophthalmoscopic findings by providing a textbook with visuals. A second method is to help the learner gain confidence in perceived areas of weakness. For example, a dependent and somewhat avoidant learner may have initial difficulty doing a physical exam. By breaking the task into parts and modeling one part at a time while encouraging discussion, the learner may develop enough confidence to attempt a more active learning style in the next situation.

Teaching methods

Because medical preceptors are accustomed to learning from formal didactic teaching methods, many attempt to use the same strategy with learners in other settings such as in the clinic setting or at the bedside. While this is effective with motivated learners with well-developed, self-directed learning styles, many learners require additional help to learn effectively the large amount of material needed in the medical profession. There is evidence that by varying methods of teaching, educators may help students expand their ability to use diverse learning styles (Grasha, 1972; Hersey *et al.*, 1977). Learners may still prefer specific ways to learn new material; however, they may be able to approach different kinds of tasks with more strategies and less apprehension (Quirk, 1994). When deciding which method to use, several aspects of the teaching method itself should be considered: setting, number of learners, approach (including planning time) and content. Table 4 on the website includes detailed information about a

variety of different teaching methods, all of which can be used in the medical setting. Each method is accompanied by suggestions for setting, number of learners, and topics that may lend themselves to the particular teaching method.

Conclusion

Teachers need to know and understand a variety of teaching methods and styles for the ongoing refinement and success of medical education. The first step is for medical teachers to begin to implement these methods and styles so that there is greater comfort across the array of possibilities. A model of how to incorporate, manage and balance the complexities of teaching style, learning style and teaching methods has been described in an earlier article entitled ‘Microburst teaching and learning’, published in *Medical Teacher* (Vaughn *et al.*, 2001). Future efforts should include formal evaluation of the effectiveness of these styles and methods in the medical setting in order to determine which ones are most effective in the different teaching and learning environments in clinical medicine.

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