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Students as peer tutors and mentors

Abstract

Time is limited and there are many benefits for both students and their teachers when learners are actively engaged in the educational process as peer tutors and mentors. We describe a training programme that helped students develop the skills and insight they need to fulfill these roles. In the three-day workshop we modeled a coherent educational approach to this training. We used a wide variety of instructional methods, including lecturing, large and small group activities, feedback, as well as an Objective Structured Teaching Exercise (OSTE). At the end of the workshop, participants had a profound understanding of the role and potential of a mentor and felt more comfortable about extending and developing their teaching. In health professions, education, in particular the role of the mentor, is to help students cross barriers and boundaries to become new members of their chosen profession.

Keywords

Learning theories, peer-teaching, small-group work, OSTE, mentoring

Studierende als Tutorinnen/Tutoren und Mentorinnen/Mentoren

Zusammenfassung

Studierenden und Lehrenden bringt es viele Vorteile, wenn Studierende zur Unterstützung ihrer Kolleginnen und Kollegen in den Studienbetrieb eingebunden werden. Wir berichten über ein dreitägiges Training für Studierende zur Entwicklung von einschlägigen Kenntnissen, Fertigkeiten und Einsichten, um sie auf ihre Tätigkeit als Tutor/in oder Mentor/in vorzubereiten. Dabei kamen verschiedene didaktische Methoden zum Einsatz: Frontalunterricht, Kleingruppenarbeit, Diskussion, Feedback, eine Objective Structured Teaching Exercise (OSTE), Evaluation u. a. Am Ende des Trainings hatten alle Teilnehmer/innen klare Vorstellungen, wie sie ihre eigene Lehre verbessern können, und auch ein klareres Verständnis ihrer Rolle als Mentor/in, um Kolleginnen und Kollegen den Einstieg in deren zukünftige Tätigkeit (Gesundheitsberufe) zu erleichtern.

Schlüsselwörter

Lerntheorien, Tutor/in, Kleingruppe, OSTE, Mentoring

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There is considerable pressure in higher education, from a variety of sources, to accommodate an increasing number of students and improve the students' experience under progressively more restricted budgets. Although this seems like a descending spiral, it is possible to re-envision the way in which we provide students with the level of support that will enable them to flourish. By shifting some of our traditional duties to student tutors and mentors while maintaining overall responsibility for quality control we may be creating a win-win situation for everyone.

In this paper we describe a short training course we delivered to a group of 25 students from a traditional medical school to help them become peer-teachers and make the transition to becoming mentors. The program evaluation consisted of qualitative data that was collected at the end of the course as well as during a follow-up workshop in which participants had to present their implementation experiences.

1 The programme

The training course took place over three days in August 2013 at the Medical University of Vienna for 25 students and 3 staff members from the Victor Babes University of Medicine and Pharmacy in Timisoara, Romania. The course was conducted in English but during the various pair and small group exercises participants were encouraged to use Romanian to communicate amongst themselves. The four trainers came from Austria, the UK, and the USA and were experienced in medical education as well as in staff and student development. The program was part of a 3-year EU-funded grant to improve medical education in Romania.

We employed multiple instructional techniques to enhance the participants' learning experience (e.g., PowerPoint, Prezi presentations, an audience response system, think-pair-share activities, small group exercises, an instructional game and an Objective Structured Teaching Exercise (OSTE) that focused on feedback and mentoring). We took a broadly constructivist approach employing experiential and social learning theory (TAYLOR & HAMDY, 2013), in which the foundation for the development of our students was their existing knowledge and experience.

2 Day 1

On the first day we focused on introducing the students to what we perceive as the main themes in contemporary medical education:

1. An increase in the level of organization of medical education
2. The importance of an integrated curriculum
3. An increase in the accountability of medical training programs
4. The globalization of medical education, and medicine generally

After each theme was defined and explored the audience response system helped participants identify how their views of the current trends compared to those of their colleagues (Figure 1).

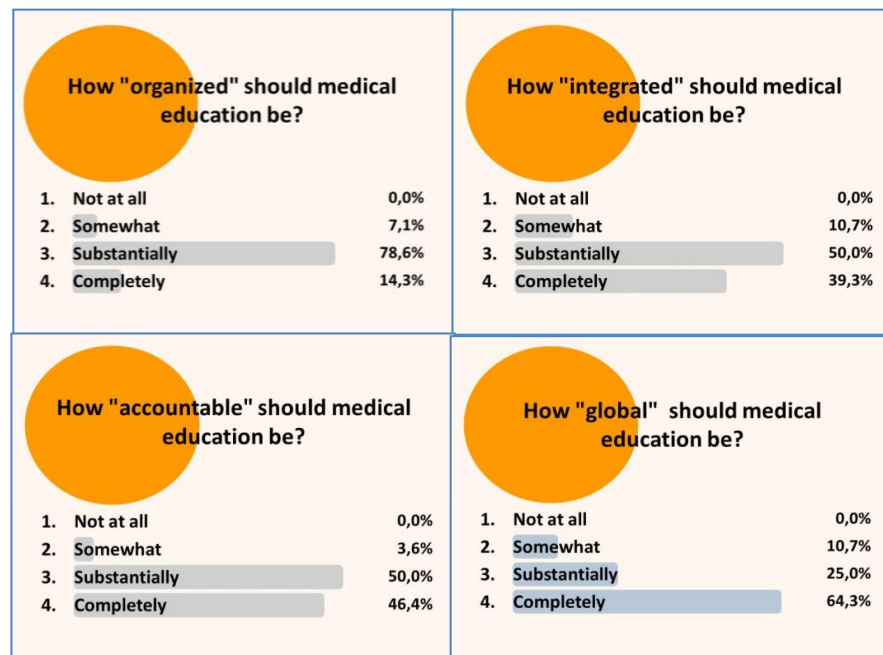


Figure 1: Audience response results illustrating the participants' views concerning the current state of medical education (N=28, bars illustrate frequency of votes per response option)

A discussion of the theories that underlie medical education followed. An educational model (TAYLOR & HAMDY, 2013) was introduced to help participants organize their thoughts and reflect on their own learning and teaching. Results from an audience response survey showed that learners view their own learning challenges differently from those they are trying to tutor and mentor (Figure 2).

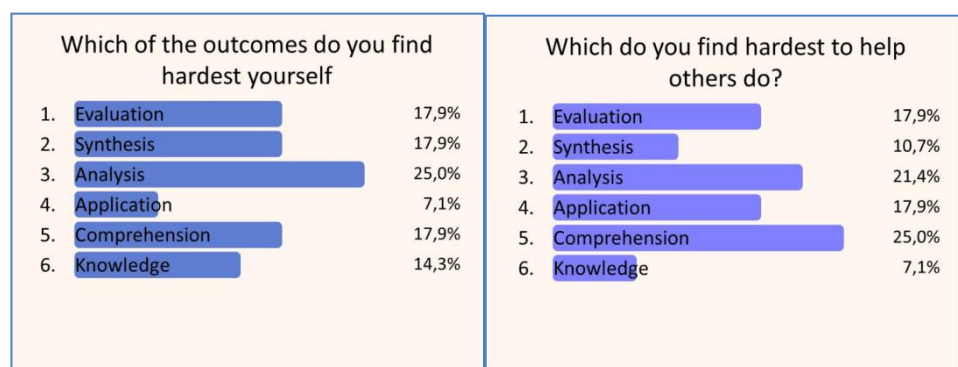


Figure 2: Participants' views on the challenges presented by Bloom's Taxonomy (N=28)

The afternoon session began with an overview of how people learn and what strategies are available to facilitate that learning. The six key elements addressed, following the model in Figure 3, were the importance of articulating what is already known, presenting a task that challenges what is known (dissonance), and helping

3 Day 2

On the second day we focused on learning and teaching styles as well as several instructional techniques in greater detail. Again participants had to reflect on their own preferences and styles: the majority (64 %) viewed themselves as utilizing deep and strategic learning approaches (as introduced by ENTWISTLE et al., 1979).

The session on small group teaching required them to express their preferences for the group style, their leadership and their co-leadership styles. The majority of participants (91,3 %) preferred Group-Centred over Teacher- and Learner-Centred Groups. Co-equal co-teaching models were preferred over hierarchical and observer approaches by almost half (48 %).

During the small group session participants also viewed some Peer Tutor Training tapes from St. George's, University of London. They are readily available on YouTube (<http://www.youtube.com>) and depict several small group challenges: domineering and disengaged learners, two learners who are chatting, and a senior teacher who enters unexpectedly and takes over the group. Worksheets helped guide reflections about each challenge and became the basis for small group discussions.

The afternoon focus was on feedback and mentoring as a method of peer teaching. This required participants to explore their understanding of being an educator, and provoked deep discussions highlighted in the evaluation comments shown below.

The final session of the day focused on simulation-based education, from simple task trainers to standardized patients to sophisticated virtual simulation environments. A Prezi format was used to provide a dynamic overview of the field and demonstrate yet another instructional technique.

4 Day 3

On the final day (which finished at lunch time) we focused on feedback and mentoring skills development. To accomplish this we developed a 4-station formative OSTE (Objective Structured Teaching Exercise) that was administered in three phases: Set-up, Implementation, and Debriefing. Table 1 provides more details about the 4 stations. The aim was to allow students to think through and practice dealing with common, yet demanding, challenges in feedback giving and mentoring.

	Station Name	Scenario
1.	Creativity Mentoring	Help peer tutor develop an innovative remediation program to prevent massive failure in a genetics course
2.	Distracting Student	Mentor a medical student who performs poorly on a pediatric clerkship and who distracts class mates from learning

3.	Drop-Out Risk	Counsel a medical student who has academic difficulties and considers dropping out of medical studies
4.	Ambulance Driver	Confront a peer about unprofessional behaviour you witnessed during the Emergency Medicine rotation

Table 1: OSTE stations and scenarios

Learners were assigned to specific stations and had to develop a rating/feedback form. This required a review of the station materials (Participant Instructions and Standardized Student Instructions) and a thorough discussion of general communication skills (e.g., establishing rapport) and station-specific skills (e.g., expressing concerns about behaviour) that would be required to perform the given task well. Each small group then had to divide the roles of Standardized Learner (providing the stimulus for the encounter), Evaluator/Feedback Provider (completing the observation form and guiding the feedback) and OSTE Participant (individual who moved on to other stations as learner). The participant had 2 minutes to read the station instructions and 10 minutes to complete the task. This was followed by 5 minutes for feedback, starting with self-assessment and then including observations and suggestions from everyone present at the station.

After 3 rotations the participants ended up back in the station where they started. To provide maximum practice opportunities for each program participant we organized two concurrent OSTE runs on different floors.

The last segment of the OSTE program was devoted to debriefing. We discussed the overall experiences as well as the content of single stations. Participants were given all materials for all stations for their records. We also compared the experience of individuals who shared the same role (i.e., Standardized Student, Observer/Feedback Provider, OSTE Participant). While this exercise had clear time limitations due to its role within the overall program structure, everyone was engaged and could practice new skills.

The program ended with a reflection exercise that was combined with the program evaluation. It helped participants summarize their experiences in the workshop and make plans for applying new competencies at their home institution.

5 Program Evaluation

We collected two sets of data during and immediately after the workshop. The first, during the workshop, concerned the experience of mentoring, the second, immediately after the workshop, concerned the ways in which the workshop had influenced the participants, and their plans for the future.

5.1 Immediate Results

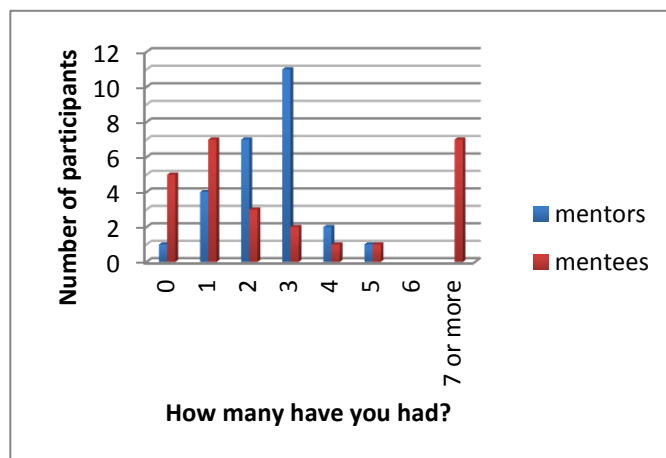


Figure 4: Responses to the question: How many mentors/mentees did you have?

A wide range of mentoring experiences emerged within the group of participants. All but one of the participants had had a mentor in the past, and 21 out of 26 reported having mentored others. There was a correspondingly wide range of ideas about the role of mentors. There were, however, some common themes.

Mentoring was seen as being concerned with personal development and support from the standpoint of someone who has survived the system themselves. The role of the mentor was recognized as significant and demanding, since it is

A position of responsibility where a more experienced person provides guidance to another person

Although knowledge was mentioned as a necessary attribute, the role of mentor was seen to transcend that of a peer-teacher.

Consequently participants felt that it was necessary for the mentor to have some understanding of the people they are mentoring.

[A mentor is someone who] ... knows you pretty well and who can help you develop in your own way in the medical field, but also in life.

Some participants wrote at greater length about the qualities and personal skills of a mentor.

In my opinion, mentoring is to help others, directly or indirectly by [one's] own behaviour, to be open to listening to others' problems and give directions but not solutions, telling the truth, [and] giving advice or examples from one's own experience to help others find their own "perfect" way to solve a problem.

When asked to identify the attributes required of a mentor, the participants felt that there were four main elements in the knowledge domain: medical (or subject specific) knowledge, professionalism, and principles of teaching and feedback.

In terms of skills, mentors were expected to have good time management skills, creativity and flexibility. They also need to be good listeners, have emotional intel-

ligence and the skill to manage unexpected situations. Their attitudes and values should lead them to demonstrate empathy, calmness, patience, confidence, and responsibility. In summary, participants expected mentors not just to understand professionalism, but also to embody it. In addition they should have a passion for what they are doing.

When it comes to what is expected of the mentees, they should be able to identify their learning needs, be flexible, have good communication skills, and demonstrate empathy, trust and respect. So, again, the participants expected professional competencies from their mentees.

All of the participants said that they had found the workshop to be either quite useful (6/26) or very useful (20/26), and everyone said that they would either probably or definitely recommend the workshop to friends. They particularly enjoyed the practical experience of the OSTE.

In line with Kirkpatrick's evaluation model (WATKINS et al., 1998), we asked participants how they would use in everyday life what they had learnt in the workshop. All of the participants said that they would use some of the teaching methods that they had learnt about and experienced first-hand, and several said that they would additionally use their understanding of learning theories in their own studies.

*I am going to use the learning techniques I was taught here in my studies...
I will have a lot of styles to pick from and adapt to my students.*

...Organize games, practical activities, because I learned ... that you learn best when you practice something.

They recognized the importance of adopting a flexible approach to their role as mentor, and the importance of giving and receiving feedback to all forms of learning.

[I learnt] ... the importance of feedback and how feedback leads to better and different types of approaches.

Two elements came across very strongly in the statements. The first is that the participants had a clear view of education as a shared endeavour, and the second was that they wanted to be more involved with both staff and students.

In the next three months I would like to implement what I have learnt here...and I will try to help students and their teachers with their problems, their difficulties; and the university staff if they ask my help with the students.

I will start a support group for junior students.

Before attending the workshop the role of the mentor had not been explicit for most of the participants. Thus events like this workshop, which provide the opportunity to reflect on the potential of this relationship—both as mentor and mentee—provide an important stepping-stone.

5.2 3-Months Follow-up

The students returned to Timisoara, and over the following three months attempted to implement the plans that they had made during the workshop in Vienna. Towards the end of November we held a half-day workshop in Timisoara at which students presented the outcomes of their work. There were nine presentations. All but one dealt with work they had undertaken since the summer program. All of the groups were able to demonstrate that they had been able to apply the principles they had learned. Most importantly, each of the groups had worked alongside academic staff to implement their projects. Students reported high levels of satisfaction for themselves and engagement with their peers and mentees. The academic staff involved was delighted with the enthusiasm of the students. What remains to be determined, of course, is whether the current enthusiasm is converted into a self-sustaining system.

6 References

Atherton, J. S. (2011). *Learning and Teaching; Bloom's taxonomy*. Retrieved June 20, 2013, from <http://www.learningandteaching.info/learning/bloomtax.htm>.

Entwistle, N., Hanley, M., & Hounsell, D. (1979). Identifying distinctive approaches to studying. *Higher Education*, 8, 365-380.

Taylor, D. C. M., & Hamdy, H. (2013). Adult learning theories: Implications for learning and teaching in medical education: AMEE Guide No. 83. *Medical Teacher*, 35, e1-e12.

Watkins, R., Leigh, D., Foshay, R., & Kaufman, R. (1998). Kirkpatrick plus: Evaluation and continuous improvement with a community focus. *Educational Technology Research and Development*, 46, 90-96.

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