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Mid Cheshire Hospitals
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Dental Education

When learning styles meet the flipped classroom

Source: BMC Medical Education

In a nutshell: Learning styles – and their existence is something of a moot point – is the idea that different people prefer to learn in different ways whilst the flipped classroom involves students doing their homework *before* their classes so they can better exploit the expertise of those teaching them. Mixing a pedagogic cocktail of these two approaches were Rong Wang and Chuanyong Liu, from Shandong University in China. 121 second-year dental students took part in the study. Most of the participants had a convergent or assimilating learning style with the rest of them being accommodators and divergers. The students' learning styles did not influence their satisfaction with the course. The average satisfaction score was higher for the flipped classroom than it was for a traditional approach. The students who had taken part in the flipped classroom were more satisfied with the online and teacher-student interaction components than the group discussions and presentations.

You can read the whole of this article [here](#).

General Healthcare Education

Simulation for resuscitation

Source: BMC Medical Education

In a nutshell: If dealing with varicose veins on a wet Wednesday afternoon scores one out of 10 on the scale of medical dramas then resuscitating new-born babies must be at least 9.5. In this article Jichong Huang, from Sichuan University in China, led a team of researchers reviewing the effectiveness of high-fidelity simulation for teaching neonatal resuscitation. The researchers found 15 studies which met their quality threshold. These showed a large benefit of high-quality simulation in skill performance and a moderate benefit in neonatal resuscitation knowledge, compared to traditional training. There was a moderate benefit in skill performance and a small benefit in knowledge compared to low-fidelity simulation. The researchers concluded “improvement of efficacy were shown both in resuscitation knowledge and skill performance immediately after training. However, in current studies, the long-time [sic] retention of benefits is controversial, and these benefits may not transfer to ... real-life situations.”

You can read the whole of this article [here](#).

Medical Education

Depression and anxiety in medical students

Source: BMC Medical Education

In a nutshell: Despite the huge increase in labour-saving devices for the home and automation in the workplace people seem adept at inventing new work for themselves and, in the words of Philip Larkin “excuses that make them all needs.” Medical students are no exception and in this study Ying Mao, from Xi’an Jiaotong University in China, led a team of researchers reviewing the evidence on depression and anxiety in Chinese medical students. The researchers found 21 articles that met their quality criteria which included a total of 35,160 Chinese medical students. There was an average prevalence of depression of 32.74% and an average prevalence of anxiety of 27.22%. Older studies showed that women were worse affected but newer ones showed that men were. The further through their course they were the more depressed and anxious the students became. Those with siblings were more depressed and anxious than only children. Those from less well-off backgrounds were more depressed while those who were doing less well on their course and/or who were less satisfied with it were more likely to be anxious.

You can read the whole of this article [here](#).

... and what makes students stressed in Germany

Source: BMC Medical Education

In a nutshell: Also looking into the mental health of medical students were a team of researchers led by Jeannette Weber, from Heinrich-Heine University in Düsseldorf. The researchers carried out eight focus groups with medical students enrolled at medical schools in Germany. Organisational factors contributing to stress included: inadequate information flow, unfair grading, poor teaching, time and performance pressure, social interactions, self-expectations and fear of failure. Resources perceived to facilitate coping with these stressors included: flexibility, availability of contact persons, career prospects, practical training, social support, personal characteristics and leisure time. Suggestions for improvement related more to course organisation than improvements in the students’ personal characteristics.

You can read the whole of this article [here](#).

Teaching doctors to share decisions

Source: BMC Health Services Research

In a nutshell: “I assumed one of your enemies had gained access to your wardrobe,” was one of Jeeves’ more scathing reactions to Bertie Wooster’s choice of outfit. Just as Jeeves had to learn how to share decision making with Bertie Wooster

(even if he was proved right in the end) so doctors have to learn to make decisions alongside their patients. In this article Evamaria Müller, from University Medical Centre Hamburg-Eppendorf, led a team of researchers looking into the effectiveness of skills training on shared decision-making communication skills for doctors treating people with asthma. The training lasted 12 hours and included a short introductory talk, videotaped consultations with simulated asthma patients, video analysis in small group sessions, individual feedback, short presentations, group discussions, and practical exercises. 29 doctors took part in the study which found that most of the doctors experienced a change in attitude and behaviour after the training and positively appraised the training programme. The doctors enjoyed the simulated patient consultations and suggested that real patient consultations be included in the future.

You can read the whole of this article [here](#).

Does simulation make operating easier?

Source: BMC Medical Education

In a nutshell: Operating on people can be exhausting. Concentration levels need to be high, the consequences of things going wrong tend to be serious and you can't break off for a ten-minute game of Word Wipe when you're feeling a bit browned off. In this article Takashige Abe, from Guy's Hospital in London, led a team of researchers looking into whether repeated simulations of ureterorenoscopy (poking around with a camera inside people's waterworks) would reduce mental workload when people tried performing it for the first time. 17 students completed a minimum of six training sessions over a median of 21 days. The students' scores on an Objective Structured Assessment of Technical Skills improved over the six sessions although there was some evidence of plateauing. However, the students' scores on NASA's Task Load Index (designed to measure how much mental burden people are under) persistently decreased over time.

You can read the whole of this article [here](#).

Why won't doctors learn from their mistakes?

Source: BMC Medical Education

In a nutshell: Medical students are repeatedly examined on their scientific knowledge during their studies but their ability to manage their emotions and get on with other people – intrapersonal and interpersonal competencies (IICs), in the jargon – is addressed rather less. In this study Lisa Lombardo, from Witten/Herdecke University in Germany, led a team of researchers examining the role of IICs in the treatment process, the current situation of IIC training in medicine and the comparatively low focus on IICs in the clinical training of medical students. The researchers interviewed 21 experts from a variety of medical specialties and non-medical professions that provide a training with a stronger focus on IIC development. The experts confirmed that IICs are an equally important component

in the treatment process, along with medical knowledge and treatment skills. The key shortcoming as far as doctors were concerned was felt to be “a deep-seated defensiveness towards learning from mistakes and deficits e.g. through reflection and feedback.” Reasons perpetuating this defensiveness included: lack of support in dealing with insecurities in the face of responsibility; the notion of medicine as a science with right and wrong answers and hierarchical, economic and competition pressures.

You can read the whole of this article [here](#).

What do students feel about ward-round simulations?

Source: BMC Medical Education

In a nutshell: Simulations have become more complex over the years and many students now take part in simulated ward rounds where they see a succession of simulated patients one after the other. In this study Claudia C. Behrens, from Universidad Católica del Norte, in Chile, led a team of researchers investigating students’ emotions as they took part in simulated ward rounds. The researchers held six focus groups and found that the students experienced a range of emotions during the simulation. They felt proud, enjoyed the simulation and performed well. They felt proud because they could show in the complex simulation what they had learned so far. The students reported moderate levels of anxiety and low levels of frustration and shame. The researchers also found “non-significant correlations between achievement emotions and performance during ward round simulation.”

You can read the whole of this article [here](#).

Getting anatomy students ready for the workplace

Source: BMC Medical Education

In a nutshell: Complaining about graduates not being ready for the workplace is a bit like moaning that Christmas comes earlier every year; everyone likes to grumble about it but nothing seems to change. In this study Julian David Pillay, from Durban University of Technology, led a team of researchers looking into the effectiveness of a dissection project for first-year medical students that deliberately tried to inculcate some of the attributes that employers require from graduates. 23 students took part in the course and then in focus group afterwards. The students were positive about the effectiveness of the dissection project in enforcing anatomical knowledge; ensuring active engagement with human material; enhancing communication skills and teamwork and increasing sensitivity towards cultural diversity. “These views related largely to those graduate attributes which engage students towards becoming active and reflective learners; creative thinkers; independent and collaborative workers; effective communicators; and culturally and socially aware citizens.”

You can read the whole of this article [here](#).

Vertical integration down under

Source: BMC Medical Education

In a nutshell: Vertically integrated learning (VIL) has been defined as “(the) coordinated, purposeful, planned system of linkages and activities in the delivery of education and training throughout the continuum of the learner’s stages of medical education.” More succinctly it’s the first years learning from the fifth years with – once in a way – information travelling in the other direction as well. In this study Jessica Beattie, from Deakin University in Australia, led a team of researchers looking into vertically-integrated learning between students taking a year-long placement in a rural general practice and general-practice registrars. The researchers interviewed 15 people and five themes emerged from the interviews which were:

- Understanding and structure
- Planning and evaluation
- Benefits
- Facilitators
- Barriers

The researchers concluded that VIL was not clearly understood and that its structure and methodology varied considerably between practices. Its benefits included satisfying and efficient sharing of knowledge between learners at different levels and it was facilitated by the supportive and collegiate environment identified as being present in this rural educational scheme.

You can read the whole of this article [here](#).

Junior doctors and empathy

Source: BMC Medical Education

In a nutshell: Empathy is hard to acquire and difficult to measure. Questionnaires exist but these are a bit like trying to experience the works of Rembrandt with a colour by numbers book and a Dulux paint chart. In this study Johanna von Knorring, from Umeå University in Sweden, led a team of researchers carrying out more in-depth interviews with 16 medical interns. The researchers found that empathy was multifaceted and conflictual, consisting of “being,” and “doing.” It was uncontrollable and contextual, biased and situated and essential and conflictual – something that came and went according to the situation, in other words, rather than a constant trait or quality which each student had more or less of.

You can read the whole of this article [here](#).

Women and leadership in O&G

Source: BMC Medical Education

In a nutshell: Obstetrics and gynaecology (O&G) both involve treating women with men's involvement being either as cheering onlookers, supportive shoulders to cry on or 'I'll be in the pub watching the football text me when it's all over.' Most junior doctors working in O&G in the US are women yet only a third of academic leadership positions are held by women. In this study Brindha Bavan, from Stanford University School of Medicine, led a team of researchers studying 202 O&G residents, of whom 174 were women. Two thirds said they were interested in pursuing academic leadership although women did report leadership aspirations less often than men and were less interested in leadership *per se*. However, no difference in leadership aspirations was noted between women and men when mentorship, the presence of a female programme director, and the presence of three or more female leaders in a programme were taken into account.

You can read the whole of this article [here](#).

Long-term effects of rural placements

Source: BMC Medical Education

In a nutshell: Rural, in an Australian context, means rather more than simply having a half-hour drive to the nearest Waitrose; think *Crocodile Dundee* rather than *Midsomer Murders* and you won't go far wrong. In this study Rosalie D. Thackrah and Sandra C. Thompson, both from the University of Western Australia, interviewed seven medical-school graduates who had completed a remote placement in 2013/14. Most of them were still employed in rural settings. Some were attracted by the rural lifestyle and employment opportunities while others were drawn by a desire to reduce rural health disparities. "Regardless of setting, all actively applied clinical and cultural learnings acquired on placement to their professional practice."

You can read the whole of this article [here](#).

Exploring the benefits of the flipped classroom

Source: Computers & Education

In a nutshell: The flipped classroom (see above) has become increasingly popular in higher education recently – almost *de rigueur* in some institutions. In this study Rianne A.M. Bouwmeester, from University Medical Centre Utrecht, led a team of researchers investigated the ins and outs of flipped classrooms. The researchers found that there was more in-class interactivity in flipped classroom. Compared to students in a traditional class those in flipped classrooms had a similar workload but found their exam preparations less time-consuming. The students in flipped classrooms had higher perceived self-efficacy but over the long-term there was no difference in self-efficacy and knowledge retention between those in flipped and traditional classrooms.

You can read the abstract of this article [here](#).

Are high-achievers less happy?

Source: BMC Medical Education

In a nutshell: “But are they really happy?” is often people’s reaction when they contemplate people like Sir Mick Jagger, on his umpteenth beautiful wife, adored by millions of fans and dividing his spare time between his houses in the Caribbean and a box seat at the Test Match. It gives us a certain amount of solace as we contrast his life with nine-to-five, mulling over spreadsheets and trying not to nod off in the Corporate Team briefing. In this study Husam Malibary, from King Abdulaziz University in Saudi Arabia, led a team of researchers looking into levels of happiness among 631 medical students. High achievers showed lower psychological health, while poor academic performance was associated with better psychological health and worse social relationships.

You can read the whole of this article [here](#).

Video demonstration for paediatrics

Source: International Journal of Educational Technology in Higher Education

In a nutshell: Hard-pressed parents often stick two fingers up to the World Health Organization and plonk their kids down in front of a video while they get on with cleaning the oven, cutting the grass and preventing a food-poisoning outbreak from starting in their fridge. Medical educators often take the same approach and videos are increasingly used for teaching clinical skills in medical education. This need can be particularly pressing in resource-poor settings and in this study Ann George, from the University of the Witwatersrand in South Africa, led a team of researchers looking into the effectiveness of using video demonstrations to replace the bedside teaching of introductory paediatric clinical examination skills to large groups of medical students. 60 students took part in the trial. Half watched a video of a paediatric abdominal examination and half received a bedside tutorial on the same topic. The video teaching was no worse than the bedside demonstration and did not significantly affect the pass/fail rate.

You can read the abstract of this article [here](#).

What motivates student tutors?

Source: BMC Medical Education

In a nutshell: Peer-assisted learning relies on one group of students – usually, but not necessarily slightly older – teaching another. This gives lecturers more time to get on with their paperwork, write some grant applications and sort out a nice cottage in Cornwall for the school holidays but what do the students get out of it? In this study T.J. Bugaj, from the University of Heidelberg Medical Hospital, led a team of researchers carrying out nine interviews with student tutors. All of the tutors showed great enthusiasm and motivation for their job as peer teachers. One of their

main motivations was the possibility of simultaneously sharing and improving their knowledge and expertise. The students had high aspirations for their teaching and found it particularly important to be empathetic with the student learners. At the same time they thought they would personally benefit from their teaching activities and develop a certain expertise as student tutors.

You can read the whole of this article [here](#).

Motivation, e-learning and antibiotics

Source: The Journal of Antimicrobial Chemistry

In a nutshell: Proverbially you can lead horses to water but it's more difficult to get them to drink if they don't want to. In the same way one can provide people with any number of opportunities to partake of e-learning without them necessarily taking advantage of them. In this study Martine G. Caris, from the VU University Medical Centre in Amsterdam, led a team of researchers looking into the links between different types of motivation and people's completion of an e-learning package about antibiotic prescribing. 86 junior doctors took part in the study of whom 50 took the e-learning package. The researchers measured the junior doctors' relative autonomous motivation (RAM) – how much of the doctors' motivation came from within themselves compared to from sticks or carrots from other people. The researchers found that the junior doctors with negative RAM were less likely to take the course than those whose motivation came from within.

You can read the abstract of this article [here](#).

Problem-based lectures

Source: BMC Medical Education

In a nutshell: In problem-based learning students are given medical cases and have to go away and research their causes, diagnoses, treatments and prognoses. Many people think this is more effective than traditional lectures but in this study Nouralsalhin Abdalhamid Alaagib, from the University of Khartoum, led a team of researchers investigating a halfway house between the two approaches – problem-based lectures where teachers discuss a particular problem in their classes rather than giving a dry lecture on anatomy and physiology. The researchers found that the new approach meant students paid more attention to, and were more active in, their classes. It stimulated them to use their lecture time more effectively and to use references more. When tested on the topics later the students who had been to problem-based lectures scored higher than those who had been to traditional lectures.

You can read the whole of this article [here](#).

How to get more from informal mentoring

Source: BMC Medical Education

In a nutshell: Many organisations run formal mentoring schemes but these can take a long time to set up and it can often be hard finding enough people to act as mentors. In this study Heba A. Mohtady, from Fakeeh College for Medical Sciences, in Saudi Arabia, led a team of researchers looking into informal mentoring in a study of 103 mentors and 91 mentees. They found that mentors had a better appreciation for the interpersonal aspects of informal mentoring than mentees, especially when it came to acceptance, counselling and friendship. Being older, and being engaged in a longer mentoring relationship contributed to more positive perceptions of the interpersonal aspects of mentoring both among mentors and mentees. The researchers recommended that “mentors and protégés ... more explicitly exchange their expectations of the informal mentoring relationship,” and added “it appears beneficial to foster lasting informal mentoring relationships and to give more guidance to younger mentors.”

You can read the whole of this article [here](#).

Getting to grips with ultrasound

Source: BMC Medical Education

In a nutshell: Rather like Boris Johnson’s protestations of probity or Jeremy Corbyn’s claims to economic competence ultrasound deals with things imperceptible to the average human. It can be very useful for peering inside the human body however, and in this study Wei-Ting Wu, from the National Taiwan University College of Medicine, led a team of researchers looking into the effectiveness of a short workshop on musculoskeletal ultrasound. 156 doctors took part in the study which found that the average rating for the course was four (useful) or five (very useful). There was no difference in the ratings for usefulness between lectures and hands-on teaching. The participants’ confidence significantly increased after the workshop but appeared to be lowest when it came to evaluating the hip joint. Previous experience in performing musculoskeletal ultrasound was associated with doctors’ levels of confidence.

You can read the whole of this article [here](#).

Nurse Education

Training nurses to deal with delirium: knowing, meaning and doing

Source: Nurse Education in Practice

In a nutshell: Delirium is a common complication for older patients in hospital and can often be confused with dementia. In this study Laurie Grealish, from Griffith University in Queensland, led a team of researchers assessing the effectiveness of a delirium-prevention educational programme. The programme focused on knowing,

meaning and doing and consisted of a brief online course, case discussions with experts, and a high-fidelity simulation. 42 nurses took part in the programme and 'before and after,' tests showed that the programme was effective in improving nurses' knowledge. The nurses carried on learning about delirium after the programme had finished and the researchers concluded that "further research into how knowledge might be shared between nurses as part of everyday work may reveal other practice-based learning techniques."

You can see the abstract of this article [here](#).

What do nurses think of self-direction?

Source: Nurse Education in Practice

In a nutshell: Self-directed learning can mean many things to people from blissful hours in the library, cracking on with studying uninterrupted by teachers to a feeling of total panic at not being able to get to grips with the library catalogue. In this study Maxine Pryce-Miller, from the University of Worcester, and Laura Serrant from Sheffield Hallam University used "a hermeneutic phenomenological approach framed within an interpretative paradigm"* to "seek out individual and collective perceptions of the learning process." They identified four themes which were:

- Divergent perceptions of self-directed learning
- Adult learning needs and transition
- Motivation
- Understanding responsibility

They concluded "students appeared very dependent and, paradoxically, demanded both variety and consistency from educators in assisting them to develop as they progressed through the course. Within these themes, anxiety and vulnerability were shared motifs in students' experience."

*available at all good retail outlets

You can read the abstract of this article [here](#).

Occupational Therapy Education

Do occupational therapy placements live up to expectations?

Source: BMC Medical Education

In a nutshell: Very few things in life live up to expectations. One might argue that humans complaining about disappointment is a bit like haddock moaning about the damp. In this study Anat Golos and Esti Tekuzener, from the School of Occupational

Therapy of Hadassah in Jerusalem, investigated whether occupational therapy students' placements lived up to their expectations. They compared two types of placements, role-established, in which students were placed in recognised and approved clinical settings, such as medical and educational institutions and community services and role-emerging where students developed community-based occupational therapy programmes with supervision being provided daily by an on-site professional (not an occupational therapist) and weekly by an off-site occupational therapist. 155 students took part in the study which found that they were all disappointed by the settings of their placements and the supervision although a significant increases in scores was found from pre- to post-placement in terms of personal and professional skills. Role-established placements scored significantly better in terms of setting and supervision but role-emerging placements scored higher in terms of the contribution of services to the community.

You can read the whole of this article [here](#).

Physiotherapy Education

[A question of touch? How visually-impaired students cope with physiotherapy](#)

Source: Nurse Education in Practice

In a nutshell: When one thinks about it, physiotherapy, in which touch plays a significant part is, perhaps, one of the more logical career choices on offer to people suffering from visual impairment. In this study Helen Frank, from the University of Worcester, led a team of researchers who interviewed four visually-impaired physiotherapy students about their experiences. Barriers included: environmental factors; unsupportive behaviours and time and effort whereas enablers were: supportive relationships; student attributes; and strategies and adaptations. "All participants experienced barriers to learning within their university setting, despite having disclosed a disability and having access to and provision of reasonable adjustments. However, despite facing barriers, there were many positive experiences that enabled learning, particularly when staff and students worked together in an open, supportive, and proactive environment.

You can read the abstract of this article [here](#).