#10HH Posters: Teaching and Learning 2 and Self-Regulated Learning and Mentoring
Location: Hall 6

#10HH01 (1897)
Siriraj International Medical Microbiology Parasitology and Immunology Competition (SIMPIC): The Platform for Academic Competition and International Relations for International Medical Students

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Background: Siriraj International medical Microbiology Parasitology and Immunology Competition (SIMPIC) is an annual international competition hosted by medical students from Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand. Siriraj medical students organize a 4-day event scheduled with academic competitions supervised experts in the fields, workshops, group activities and cultural experience.

Summary of Work: In the 5th SIMPIC, there were 208 delegates from 36 medical schools in 10 countries and 400 staffs. Each participant filled a questionnaire containing the following 3 aspects: (1) attitudes prior to SIMPIC, (2) benefits from the participation in SIMPIC, and (3) interests towards relating subjects after participating in SIMPIC.

Summary of Results: 94% of the participants reported that SIMPIC provided a stimulating learning experience. Participants agreed that SIMPIC stimulated their interests and acknowledged the importance of microbiology (96%, 93%, respectively), immunology (96%, 92%), parasitology (94%, 90%), and a study of infectious diseases (99%, 94%). They also agreed that SIMPIC promoted international connections (98.5%).

Discussion: The results showed that SIMPIC delegates gained positive attitudes towards three subjects. They received academic knowledge which will be applicable to their medical profession. The international experience broadened their visions both academically and culturally. The organizing staffs also received the similar benefits. Long-term study of SIMPIC influence will be conducted.

Conclusion: SIMPIC succeeded in reaching its aims, including to initiate the international stage for academic excellence in the fields relating to infectious diseases, and to create the network among international medical students. Its variety of activities offered the participating medical students an alternative experience from the traditional learning environment.

Take-home Message: SIMPIC is an effective model that should be widely implemented to encourage medical students to study in specific fields and promote international relations. The competition exposes the organizing staffs to the international atmosphere without the need for the budget to send them abroad.

#10H02 (1742)
Pilot Study on the Effectiveness of Role Play in Teaching Oncologic Emergencies to Residents and Medical Students

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Background: Handling of oncologic emergencies is daunting for most junior residents and medical students due to its complexities and often time-sensitive nature. We investigated role-play as a teaching method for oncologic emergencies to simulate real-life scenarios requiring junior residents and medical students (juniors) to think on their feet.

Summary of Work: We aimed to evaluate the effectiveness of role-play for teaching juniors about oncologic emergencies compared to the conventional didactic lectures. The pilot study was conducted for the juniors who received the conventional didactic lectures and participated in the role-play scenarios for oncologic emergencies simulating real-life cases.

Summary of Results: A pre- and post- role play questionnaire was administered for 23 juniors in this pilot. Role play was found to be an effective method and was deemed better than didactic lectures (p<0.001). Role play tested and improved their clinical ability and they were more confident in handling oncologic emergencies (p<0.001).

Discussion: Role play which simulates real life scenarios provided faculty members with a novel platform for teaching oncologic emergencies to juniors. Compared to conventional didactic lectures, juniors felt that role play is effective as a teaching tool. They also felt more confident and better equipped to handle oncologic emergencies.

Conclusion: Role play is shown to be better than conventional didactic lecture in this pilot study in teaching oncologic emergencies for juniors. Juniors felt more empowered and confident in dealing with oncologic emergencies in their daily practice. We are planning to expand this pilot study further in larger cohort of juniors.

Take-home Message: In our pilot, role play has shown to be successful as a novel tool for teaching oncologic emergencies. It was well received by juniors as a teaching method and effective in empowering them to handle similar cases. It can be incorporated into routine teaching if proven successful in larger cohort.
Developing story-based study guide as a tool for harmonizing teaching and learning under the situation of various undergraduate medical curricula

#10HH03 (1831)

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Background: Thai Ministry of Public Health has co-produced medical doctors to fulfill health service system in Thailand under the working group of the Collaborative Project to Increase Production of Rural doctor (CPIRD) for 22 years, in which currently has 37 training sites (MEC: Medical Education Center) collaborated with 14 universities across country.

Summary of Work: Since CPIRD aims to produce rural doctors who are able to retain longer in the system, we design a system-thinking learning tool to harmonize the curricula. Story-based study guide was used as our tool. Study guide contents were mapped related to medical council competency criteria and current health policy.

Summary of Results: Topics in the study guide were finally categorized into 3 themes: 1) understand self 2) understand others 3) understand system. Overall is contained of thirty-two topics. Faculty development workshops were deployed to create and communicate the use of study guide. All study guides were easily accessed from main CPIRD website.

Discussion: We related the learning topics into one longitudinal story of patient life and medical learner life per se, which hope to conceptualize learners’ ideas of health service provider in Thai healthcare context, and to help facilitate learners’ self-learning and percepitively harmonize teaching strategies from various instructors working under CPIRD project.

Conclusion: Within the three categories of contents, thirty-two topics of study guide were created. The frequency of download was monitored. The satisfaction and suggestion from users were asked for an ongoing tool improvement. The descriptive and analytical outcome data will be reported at the conference.

Take-home Message: Story-based study guide can be a tool to harmonize teachers' instructions across campus while promoting self-learning of learners.

#10HH04 (1078)

The role of social networks on the function and impact of boundaries and interfaces in healthcare: methodology and findings of a scoping review and qualitative meta-synthesis

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Joelle Kirby, Central & North West London NHS Foundation Trust, London, UK

Background: Contemporary healthcare provision involves fluid transient teams of healthcare professionals, patients and carers. In this context, professional learning often emphasises behaviourism and knowledge transmission, ignoring the social component to learning. We sought to determine the extent to which social networks matter for workplace-based learning and for optimal individualised needs-based healthcare.

Summary of Work: Taking a critical realist approach, a protocol was designed to explore the role of social networks at patient/carer-generalist-specialist interfaces, and how learning at boundaries/interfaces relates to networks. Palliative care and liaison psychiatry were used as exemplars with self-described remits for delivering advice/education through interactions with other professionals, patients and carers.

Summary of Results: We will present the protocol for our scoping review extended with qualitative meta-synthesis, and our findings, focusing on learning, communication, error, and behavioural change. Our results advance previous work with recommendations to improve effectiveness of educational interventions and workplace practices, with respect to reciprocal learning and shared care interfaces.

Discussion: We will discuss novel methodological approaches within our protocol and consider the implications of our findings with respect to (i) equipping health professionals to work and learn across boundaries/interfaces, and (ii) further research to guide development of educational interventions and safety/quality improvement initiatives using social networks to promote effective learning.

Conclusion: This review and metasynthesis took a deliberately broad perspective on the role of social networks in professional learning and practice in healthcare. The existence of related/overlapping constructs identified a significant number of potentially-relevant articles, but exhaustive and critical review of these synthesised key concepts and indicated areas for future research.

Take-home Message: Medical education research is an emergent field with cross-discipline foundations. Evidence reviews are important for establishing current understanding, identifying gaps, and building conceptual frameworks for further research. In this context we discuss findings from a protocol to investigate the role of social networks in professional learning and practice.

PROSPERO REFCRD42017054065
Background: Goal setting is used by world-class athletes to maximise performance through cumulative improvement of many subcomponents of their given discipline. This study investigates the implementation of Goalscape goal-setting software (developed by German Olympic Sailing Team) by medical students as a tool to increase performance in objective structured clinical examinations (OSCEs).

Summary of Work: 43 3rd year medical students undertook a mock neurology OSCE station (cerebellar examination). Students randomly allocated into 2 groups 14 days prior to OSCE. Group 1 given Goalscape with template designed by Dundee neurologists. Group 2 used traditional study methods. Difference in OSCE score between group 1 and 2 compared.

Summary of Results: The average OSCE score was 10.40/12.00 (SD 1.30) and 9.62/12.00 (SD 1.50) in the software and non-software groups respectively (p=0.088). Students rated the ‘usefulness for visualisation’ and ‘overall usefulness of Goalscape for medical students’ as 6.88/10.00 and 6.75/10.00 respectively using a qualitative questionnaire.

Discussion: Insignificant p-value likely due to small study population. Longer and more regular use of software likely required to influence performance increases. Mentoring from tutors specific to students own goals could help personalise learning and effectiveness of OSCE training.

Conclusion: We demonstrated a non-significant trend towards improvement when utilising structured goal setting. Larger population studies with more robust methodology may quantify benefits further. Future work will include a larger study population and a mentoring scheme to ensure the software is used effectively in order to utilise benefits fully.

Take-home Message: Goal setting software could be a useful tool to increase effectiveness of studying for OSCEs. Used extensively in high performance sport and could be translated into numerous aspects of medical training programmes. Goal setting software has proven popular with students and its role within medical education will be investigated further.

#10HH06 (1830)
Discourse analysis of the portrayal of medical students within the media
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Esther Murray

Background: Research suggests that the media has a role in informing health practices and beliefs. It could also be the case that media representations of medical practitioners affect medical students’ development of professionalism.

Summary of Work: A discourse analysis comparing text and television representation of doctors from 1980s to the present. Data were UK based documentaries, books and newspaper articles at the development of medical students. The analysis focused on discourses of professional identity.

Summary of Results: Preliminary results indicate that discourses of risk and glamour have appeared and that discourses around gender have significantly changed. There is a decline in positive portrayals of doctors in recent years, especially in the press.

Discussion: The increasingly negative discourses around medical professionalism in the media represent a threat to the development of a positive or desired professional identity. The increasingly positive and general portrayal of women doctors reflects and makes possible greater gender equality in medicine.

Conclusion: Over time the media has offered the public a different perspective of what it is to be a doctor, possibly reflecting social changes in regard to medicine and science. While this can have a negative impact, there are positive elements such as better representations of diversity.

Take-home Message: The media offers a perspective on professional identity. Difficult topics and themes are explored for public entertainment, and may provide a safe environment for such topics to be explored. Thus media can be a useful lens to examine students’ own beliefs about professional identity.
**#10HH07 (306)**
Are final year medical students subject to intentional blindness when interpreting chest X-rays?

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Willow Finch
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**Background:** Radiological interpretation is an essential clinical skill; however error rate is high even in senior clinicians [A. Pinto et al 2011]. A previous study demonstrated ‘intentional blindness’ in radiologists: when focussed on specific tasks, they overlooked other abnormal findings [Drew et al 2013]. Does this apply to senior medical students?

**Summary of Work:** Medical students were asked to interpret a chest x-ray to assess nasogastric tube placement. The chest x-ray showed a 2cm incidental lung mass. To simulate an on call scenario, students had 10 minutes for the task and were asked to document their findings on a sheet of history paper.

**Summary of Results:** Of 93 participants, 59 (63%) commented on the nasogastric tube. Of those who commented, 8 (14%) correctly identified it was safe; 28 (48%) identified as unsafe and 23 (31%) passed no comment on safety. 64 students (69%) noticed the incidental lesion: of these, 41 (64%) commented on the nasogastric tube.

**Discussion:** Surprisingly, more students identified a lesion than commented on nasogastric tube placement, suggesting reduced intentional blindness in students compared to experts [Drew et al 2013]. One explanation may be a fixed interpretation approach. Whilst it is encouraging they are looking systematically, the difficulty in interpreting nasogastric tube placement was concerning.

**Conclusion:** Intentional blindness is a less significant problem in final year students than in more experienced clinicians. However, students show limited task flexibility: many failed to engage with the task of assessing nasogastric tube insertion. Of those who completed the task, there was minimal competence in assessing nasogastric tube position.

**Take-home Message:** • Intentional blindness is a less significant problem in final year students than in more experienced clinicians. • Extensively drilling in systematic approaches may help reduce their rate of errors. • More training is needed on common practical tasks such as assessing nasogastric tube position.

**#10HH08 (158)**
Deliberate practice reduces stress and improves confidence to perform invasive procedural skills among undergraduate medical students

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**Background:** Medical students feel less proficient to perform invasive clinical procedures, which translates into stress response associated with increased autonomic activity. Practicing procedural skills repeatedly, improves their proficiency. However, the extent to which deliberate practice is required remains unknown. We investigated the extent of deliberate practice required to reduce stress response.

**Summary of Work:** Eighty pre-clerkship students, naïve to venepuncture and suturing, with no known sympathetic over-activity, were registered, shown a video and provided with a checklist to make five attempts of a task. The changes in pulse, blood pressure (BP), attempt duration and hand tremor were analysed with p-value <0.05 being considered significant.

**Summary of Results:** 56 students (response rate: 70%; females: 77%, Year-1: 57%) participated. The pulse, BP, Mean Arterial Pressure (MAP) and attempt duration reduced significantly between first and second attempts. Tremor scores improved as suggested by a heat map. There was no significant difference between genders or curriculum phase (Year1 vs Year2+3).

**Discussion:** The coefficient of variance for pulse, BP, MAP and attempt duration were 50% between 1-2 attempts and 66% after 3-4 attempts. Task proficiency as shown by reduction in attempt duration, improved >50% between first two attempts and 66% after 3-4 attempts. The limitations included voluntary recruitment and disproportionate gender participation.

**Conclusion:** Female students were more enthusiastic to participate. The proficiency of a given task improved after repeated attempts. Their autonomic parameters also showed gradual improvement signifying lowered stress. Thus, students showed improved proficiency and confidence to perform assigned invasive procedural skills after 3 attempts.

**Take-home Message:** Integrated clinical skills sessions should be incorporated appropriately in an undergraduate medical curriculum. Emphasis should be given on ample hands-on practice opportunities to optimally improve students’ proficiency and confidence in invasive procedural skills.
#10HH09 (702)
**Immersing students in acute medicine: the use of 360 degree filming to experience Cardiopulmonary Resuscitation**

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**Justin Morgan, North Bristol NHS Trust, Bristol, UK**

**Background:** 360-degree videos allow the watcher to view the scene in every single direction, choosing what aspect to observe. When using a mobile smart device it can be viewed through a headset that allows a completely immersive experience. 360-degree videos have not, to our knowledge, been utilised in medical education.

**Summary of Work:** The aim of our research is to investigate the use of 360-degree filming to allow the students to experience a resuscitation situation. This research explores whether access to the video improves the students confidence about being a member of the resuscitation team as a junior doctor.

**Summary of Results:** A 360-degree video of a simulated resuscitation has been filmed and uploaded onto a secure website. 20 of the 40 final year medical students based at North Bristol NHS trust have access to the video. All Students’ confidence will be surveyed in March 2017 to compare the groups.

**Discussion:** 360-degree filming allows the student repeated viewing of medical and surgical emergencies that they otherwise may not experience prior to becoming a doctor, taking in the environment as a whole, but also allowing them to focus on different aspects of there choosing.

**Conclusion:** The scope for use of 360-degree videos in medical education is wide and varied, in both undergraduate and postgraduate education. It allows students to fully immerse themselves in the environment, providing a learning experience that current simulation methods could never achieve.

**Take-home Message:** As the technology improves, the possibilities using 360-degree filming can only increase. Future work may include further videos of emergency situations, videos introducing clinical environments such as an operation theatre and videos of practical procedures. These are the first steps towards using virtual reality in medical education.

#10HH10 (2624)
**Relationship between self-regulated learning, tutorial performance and academic achievement: A path analysis**

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**Background:** Self-regulated learning is an essential skill needed in student-centered learning such as Problem Based Learning. This skill will determine the level of students’ engagement in learning activities that in turn may impact on their achievement. This skill includes motivational belief and learning strategies

**Summary of Work:** This study was aimed to identify the effects of motivational belief and learning strategy on students’ tutorial performance and academic achievement. Data collected through Motivated Strategy for Learning Questionnaire among fourth-year grade students (n=112) was then correlated through path analysis with their tutorial performance in Public Health Block and GPA.

**Summary of Results:** Path analysis indicated that students’ motivation and learning strategies impacted significantly on their tutorial performance that in turn influenced their academic achievement (p<0.05). Task value, which is a component of motivational belief, and organization, which is a type of learning strategy, had strongly effect on students tutorial performance.

**Discussion:** The quality of students’ motivation and learning strategies determine how far students’ engage in tutorial activity that in turn impact on their academic achievement. High motivated students perform well in the tutorial. Their capability to apply appropriate cognitive learning strategies also assist them to have good performance in the tutorial.

**Conclusion:** Motivational beliefs and learning strategies, which is part of self-regulated learning skill, have crucial roles in a student-centered learning such as PBL tutorials. This skill increases students’ tutorial performance and academic achievement.

**Take-home Message:** Having self-regulated learning skill such as good motivational belief and capability to apply appropriate learning strategies could induce students to be more responsible in their learning. As a result, they could achieve their learning goal optimally.
Background: Self-directed learning (SDL) is implemented in education to foster lifelong learning. It is also believed to promote better study results. We tested whether students of Radboudumc developed SDL using the Motivated Strategies for Learning Questionnaire (MSLQ). SDL is promoted in the medical curriculum by project-based courses and monthly coaching groups.

Summary of Work: The MSLQ was administered to first year medical and biomedical sciences students. We interpreted high SDL by scores on MSLQ scales ‘Elaboration’, ‘Critical thinking’ and ‘Metacognitive self-regulation’. Low SDL was indicated by ‘Rehearsal’ and ‘Organisation’. Two regression analyses were conducted for study results and both high and low SDL.

Summary of Results: Scores of the students (n=249) on the MSLQ learning strategy scales were used to calculate, on a 7-point scale, low SDL (mean=4.33, sd=1.24) and high SDL (mean=4.12, sd=0.98). Study results were related to both high SDL (R²=0.032, p=0.006) and low SDL (R²=0.028, p=0.010).

Discussion: Surprisingly, only a small difference in study results between levels of SDL was found. Perhaps SDL is not related to study results, as contradicting results are also emerging from other studies. Another explanation is that our current method of knowledge assessment might be skewed towards different learning strategies.

Conclusion: Students with high scores on SDL do not perform better on our current exams. We want to investigate this further. Different assessment content or methods might match the goals of the curriculum better. If SDL does not lead to better performance, effectiveness of implementation of SDL needs to be reconsidered.

Take-home Message: Our research raises concerns with regard to the translation of SDL to assessment. We believe that future exams will need to differ qualitatively from traditional assessment if we want to promote SDL and foster lifelong learning.
#10HH13 (1784)
Four intertwining socio-cultural factors embedded in mentoring experiences in an East Asian Culture: A critical analysis

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Background: There have been increasing literature on mentoring as a formal faculty development strategy, mostly in western countries. Very few were discussed within Asian contexts. This study is to explicate the socio-cultural factors embedded in the formulation of a mentoring relationship from the narratives of the mentees and the mentors.

Summary of Work: We adopted a critical-analysis qualitative design to understand the socio-cultural factors that structured the mentoring relationship. 15 faculties via convenient sampling participated in in-depth interviews, which were transcribed in verbatim. Member check and recursive analysis to validate and expand emerging interpretations was used to increase the quality of analysis.

Summary of Results: The findings revealed four challenges of new faculty that may reflect the underlying sociocultural contexts of the mentoring relationship: a desire not to project a negative self image, lack of initiative to seek out mentoring, a low expectation towards the benefits of mentoring, and tenure rules that favored local graduates.

Discussion: The results revealed four intertwining sociocultural factors: (1) the power hierarchy and implicit codes of social interactions structured by the Confucius values, (2) respect for seniority, (3) inherited medical hierarchy originated from Japan’s colonization, and (4) the influences of grants and impact factors on new faculty recruitment and tenure review.

Conclusion: Mentoring has a long history in Taiwan. Socio-cultural contexts, including recent historical events and changing institutional structures (including tenure review rules), greatly structure the challenges faced by new faculty. These factors can also both facilitate and obstruct the formation of a conductive mentoring relationship.

Take-home Message: 1. Hierarchical inter-personal structure in medical school can negatively affect the formation of a mentoring relationship. 2. An effective mentoring program needs to consider the perceptions and expectations of junior faculty towards the program, and the embedded socio-cultural contexts. 3. Institutional tenure-review structure may inadvertently exclude faculty who are outsiders.

#10HH14 (885)
Explaining changes in the mentoring relationship - a theory of mentoring relationships

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Background: Mentoring relationships underpin mentoring success. Understanding how these relationships form and mature is key to providing effective mentoring. Prevailing theories of mentoring have suggested a step-wise change in this relationship which has failed to contend with mentoring’s evolving nature or its context-specific, goal-sensitive, mentee-, mentor- and organizational-dependent characteristics.

Summary of Work: To forward a theory that explicates mentoring relationships’ evolving nature to guide creation of mentoring and mentor training programs, literature search of Science Direct, Pubmed, CINAHL, ERIC, Ovid and PsycInfo was carried. English articles between 01/01/2000-31/12/2015 on mentoring between a senior nurse and junior nurse or nursing student were included.

Summary of Results: 8056 articles were retrieved, 167 full-text articles were reviewed and 35 perspective papers and 26 accounts of mentoring programs were included. Perspective papers were included to provide longitudinal and more mentor insights. Thematic analysis suggests 6 stages of mentoring including: Pre-mentoring, Commencement, Nurturing, Challenges and change, Completion and Friendship.

Discussion: Pre-mentoring regards the matching process and mentor training. Commencement – the establishment of mentoring relationships by goals setting and delineating responsibilities, Nurturing – adapting to one another, Challenges and Changes sees relationships weathering obstacles. Some strengthen, others end. Completion sees the achievement of goals and Friendship - the development of personal ties.

Conclusion: Mentoring relationships evolve and adapt in response to challenges. They are reliant upon motivated mentees effectively matched to trained mentors. A mentoring environment that promotes trust and mutual respect through effective communication nurtures and sustains it through obstacles through to the development of a personal relationship.

Take-home Message: 1. Awareness of the stages of mentoring allows better oversight and support of the mentoring relationship. 2. Awareness of the factors behind mentoring environments promotes and sustains the development of mentoring relationships. 3. Matching is critical to the development of mentoring relationships.
Active learning components of lecture capture programs increase test scores and knowledge retention

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Background: Our hypothesis is that a well-integrated asynchronous question and answer (Q&A) function within a lecture capture platform can increase quiz scores, comprehension of subject material and opinion of this type of active learning.

Summary of Work: Two hundred and eighty six students in an embryology course participated in the study. Performance on quizzes was linked to specific questions asked by students. Overall performance on quizzes was compared to cohort that did not receive lecture capture intervention. The quality of student’s questions was compared to quiz performance.

Summary of Results: After incentivized integration of Q&A module, its use increased by 250% and continued at that elevated level. Quiz scores after the Q&A module increased by 11% and continued at that elevated level. Comprehensive exam scores increase by 9%. Perceived quality of Q&A questions also increased and correlated with increased scores.

Discussion: Lecture capture is a tool that can be used by students for rote or active learning. The act of self-questioning has been linked to deep vs. surface learning. How captured lectures are viewed by the student will determine its perceived learning value.

Conclusion: The present study indicates that widespread use of questioning significantly increases knowledge retention and quiz scores. The use of Q&A module was considered to be of great value and was used significantly by students.

Take-home Message: Q&A modules in lecture capture platforms that are significantly used can increase knowledge retention and quiz scores and students considered it to be of great value in studying and preparing for exams.

Video lectures instead of traditional ones – preferred method according to medical students in the University of Helsinki

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Background: As part of the curriculum reform in oncology traditional lectures were replaced by 11 video lectures, which were designed to serve as activating preparatory material for subsequent contact studies. Teachers were advised to focus on clear learning objectives, and the duration of the videos was limited to 15 minutes.

Summary of Work: The data was collected using web-based questionnaire, which focused on the following aspects: 1. Overall comparison with traditional lectures. 2. General interest, match with the stated learning objectives and audience’s level of knowledge. 3. Practical issues (visual image, duration, percentage of videos watched, etc).

Summary of Results: Students (n=35) clearly preferred video lectures to traditional lectures (4, in scale 1-5), and watched more videos (80-100%) than their estimated past attendance to lectures (40-60%). Visual image (4), duration (4), and content (4) of the videos were rated favorably. Videos were mostly watched with iPads (n=25).

Discussion: This study shows that video lectures work well as pre-material for contact studies. This was facilitated by the fact that medical students in Helsinki have since 2013 been provided with personal iPads. With brief tutoring and some technical support to the lecturers the production of the videos was generally unproblematic.

Conclusion: This study shows that video lectures work well as pre-material for contact studies. This was facilitated by the fact that medical students in Helsinki have since 2013 been provided with personal iPads. With brief tutoring and some technical support to the lecturers the production of the videos was generally unproblematic.

Take-home Message: Our study gives a positive impression about video lectures and encourages to use them more in medical education.
#10HH17 (2515)
Assessment of Panopto Software for teaching Undergraduate Anaesthesia in Namibia

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Background: Panopto is lecture capture software allowing online resource access, revisiting materials and learning at individual pace. It has been shown to increase retention and enhance student learning. Little is known of its usefulness in developing countries of Sub-Saharan Africa. We investigated its use for teaching Anaesthesia to Namibian medical students.

Summary of Work: Ten brief lectures were recorded via Panopto and delivered along with classroom teaching, preparing students for a summative Anaesthesia exam. 100 University of Namibia students participated as part of their MBChB course. Students completed questionnaires 6 months after the programme. The results of effectiveness were analysed by excel.

Summary of Results: Students rated Panopto lectures more highly than classroom teaching for use in exam preparation and for future career development. Over two thirds of students felt it was easy to access the lectures and used them for exam revision. Almost all students requested more educational resources be available via Panopto.

Discussion: Use of Panopto software to complement classroom based teaching in Namibia created accessible learning opportunities for students studying Anaesthesia. It enabled students to revisit and access material outside of the classroom. In this case it provided a more flexible and adaptable learning opportunity than that provided by traditional teaching.

Conclusion: Panopto can provide access to education materials for revision in rural countries like Namibia, allowing students to learn at their own pace in an accessible format when internet is available.

Take-home Message: Panopto can be a useful tool for students in their learning, revision for exams and future career goals.

#10HH18 (364)
Effects of Study Modification on Knowledge Retention by Integration of Lecture, Teamwork & Peer-feedback in Pediatric Basic Life Support

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Win Techakehakij

Background: Knowledge retention usually decreases over time, particularly with traditional study methods. In order to achieve the goal of increasing knowledge retention, this study implemented a study modification by integrating lecture, teamwork and peer-feedback in the study course of Pediatric Basic Life Support (PBLS).

Summary of Work: Two groups of 4th-year medical students (30 in each) were assigned to traditional study (lecture-based) and modified study (lecture, teamwork and peer-feedback), during two consecutive study years. The students undertook pre-, post- and one-year retention-tests each with 10 multiple-choice questions. Comparison of test-scores between groups was assessed using a t-test.

Summary of Results: Results showed that the sequence from highest score in both groups was post-, one-year retention- and pre-test scores. There were no differences of pre-test and post-test scores between the groups. However, students in the modified-study group had a higher mean score in the one-year retention-test (5.06 vs 4.06, p=0.036).

Discussion: In comparison with traditional study, the study modification did not show any significant benefit for immediate knowledge (short-term retention). Nevertheless, an improvement in long-term knowledge retention was highlighted, which could result from integrating the provisional advantages of passive essential-contents from lectures, knowledge application from teamwork and encouraging self-reflection from peer-feedback.

Conclusion: Conducting PBLS teaching using this modified study method is recommended in order to improve long-term knowledge retention. Future research should focus on extending the benefit to short-term retention, with the aim of achieving a higher quality of learning.

Take-home Message: Study modification by integration of lecture, teamwork and peer-feedback enhances the long-term retention of PBLS knowledge. Implementing this study modification to the PBLS course of study and applying it to other subjects could provide an improvement in knowledge retention.