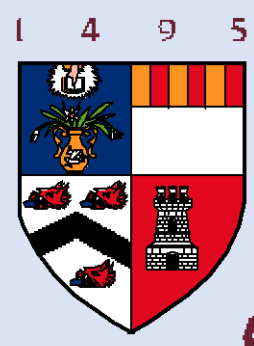


“Mini OSPE” practicals to prepare students for examinations involving human subjects.



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Background

OSPEs (organized structured practical examination) are common in clinical education. In recent years they have been adopted into honours year Medical Science and Sport & Exercise Science teaching at the University of Aberdeen and have proven useful to develop specific skills linked to personal time management and interaction with patients or volunteers. Student perceive this type of examination as challenging though they admit that it develops these skills.

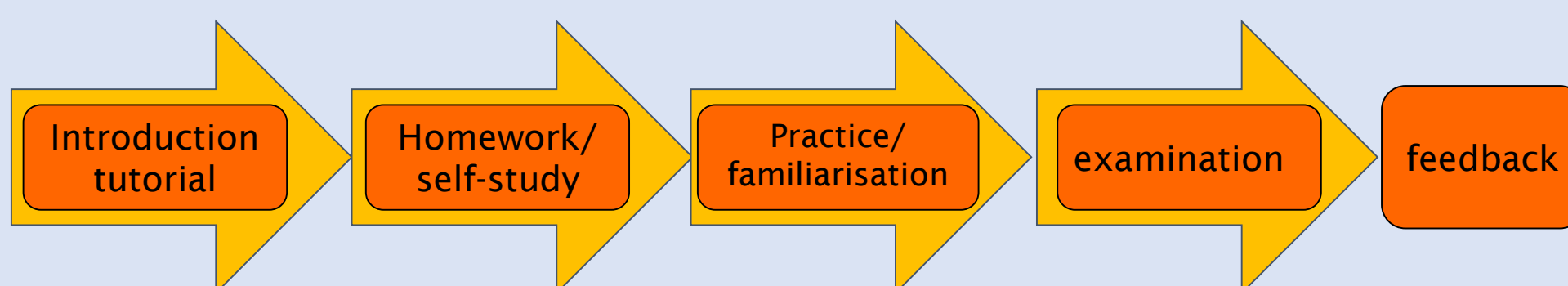
Particular the “role play” component of some examinations involving human subjects such as phlebotomy or ECG produces anxieties and insecurity in students. Interaction with volunteers is particularly important in Sport and Exercise Science, because recruitment and interaction with volunteers is often an integral part of laboratory based honours projects. Therefore a simplified version of an OSPE component to measure volunteer’s blood pressures has been introduced in third year Sport Science teaching to give students more and earlier exposure to this type of examinations.

SM 3003 Practical Skills: Blood pressure measurement: “mini OSPE”

Students get an 30 minute introduction tutorial into blood pressure measurements and are given links to resources of the British and Irish Hypertension Society (BIHS) for self-study.

The resources include guidelines, training videos and publications on recommended procedures for professional and accurate blood pressure measurements for Health Care professional. In addition to the provided introduction students are asked to study the provided information. Students are also clearly informed about the assessment procedure and its role-play nature and that they are expected to be able to take each others blood pressure like a health care professional would.

Two weeks later students come to the practical and get an hour to practice taking blood pressure in pairs.



Workflow chart of mini OSPE practical skills assessment

After this familiarisation, students are assessed taking blood pressure on each other utilising a simple tick-box scoring system. Proper technique, interaction with the “volunteer” and professionalism are the main scoring criteria. The marking sheet is also used to provide direct feed-back in those categories.



Tick-box marking sheet for easy marking and feed-back

SM 3003 Practical Skills: Blood pressure measurement	
Student:	Marker:
Explanation to patient/volunteer	<input type="checkbox"/> good explanation <input type="checkbox"/> some explanation <input type="checkbox"/> no explanation 3 1 0
	<input type="checkbox"/> Advised patient/volunteer to report pain/ too much discomfort 1
	<input type="checkbox"/> Evaluation of special conditions (pregnancy, medications, caffeine ...) 1
Cuff size	<input type="checkbox"/> correct cuff size <input type="checkbox"/> wrong cuff size 2 0
Position of cuff	<input type="checkbox"/> cuff at same level as heart <input type="checkbox"/> cuff not levelled with heart 2 0
Arm support	<input type="checkbox"/> arm supported <input type="checkbox"/> arm not supported 2 0
Arm position	<input type="checkbox"/> forearm at heart level <input type="checkbox"/> forearm not at heart level 2 0
Initial cuff pressure	<input type="checkbox"/> appropriate <input type="checkbox"/> too low <input type="checkbox"/> too high 2 3 1 0
Blood pressure recording	<input type="checkbox"/> noted once finished <input type="checkbox"/> note at some point <input type="checkbox"/> not recorded 2 1 0
Number of measurements	<input type="checkbox"/> only one measurement taken 0 <input type="checkbox"/> only 2 measurements taken though high variability 1 <input type="checkbox"/> 2 measurements taken 2 <input type="checkbox"/> more than 2 measurements because of variability 2
Explanation of results to the patient/volunteer	<input type="checkbox"/> correct and clear explanation <input type="checkbox"/> some basic explanation 2 3 1 <input type="checkbox"/> confusing / inaccurate explanation 0
Observer attitude:	<input type="checkbox"/> comfortable and relaxed, procedure not rushed, Appropriate speed 3 <input type="checkbox"/> not confident, too slow, unsure about procedure 1 <input type="checkbox"/> too rushed and hectic, tendency to irritate patient/volunteer 0
Comment:	Marks: /25

Students still find the “role-play” component irritating at first but normally loose anxieties quickly during the procedure. One aspect, reducing the intensity of the exercise is that there are no time constrains applied, that are normal part of an OSPE. It has become apparent that a detailed explanation of the purpose of the practical and contextualisation is important. The importance of communication skills and interaction with human volunteers for Sport Science students needs to be emphasized.

Also, the link to honours year Medical Science OSPE practicals needs to be highlighted to ensure full student engagement. Student feedback from SCEF course feedback questionnaires shows that the mini OSPE is effective in developing student’s skills (effectiveness of teaching and development of skill assessed on a 5-point agreement scale, 94% of ratings in 5: “totally agree”, 4: “Agree” or 3: “neutral”, n=27 over 2 years). Student comments also illustrate that despite initial concerns and anxieties, the exercise is perceived as useful and helps to build confidence interacting with people. Some students (Class rep fed-back at staff student liaison committee meeting) asked to incorporate more exercises like that into the curriculum. Sport & Exercise Science Honours students who participated in the BP pressure mini OSPE before doing the full Medical Science OSPE in forth year reported that it was a useful preparation and made them feel less anxious and more confident about it (direct communication with staff “Was the 3rd year mini OSPE beneficial for doing the OSPEs in year 4”, n=11).

Conclusion and further implications

In conclusion, the “mini OSPE” is a useful teaching tool to build students confidence to interact with human subjects and improve communication skills to facilitate the development of graduate attributes.

Currently, ways to use iPads for the marking process are explored. This will further streamline the process and will make processing of marks and delivery of feed-back quicker and easier. Similar procedures are in use for the Human Physiology Honours year OSPEs. Student feedback indicates an interest in this type of practical and examination and further human subject related practical skills relevant for Sport &

Exercise Science students are currently evaluated.

