MEDICAL TEACHER

Twelve tips for developing and sustaining a programme of student selected components

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Abstract

Background: Student selected components (SSCs) represent a significant component of medical curricula in the UK and a new approach in medical education. Despite the prominence given to SSCs by the General Medical Council in each of its seminal papers regarding undergraduate medical education, there remains a diverse view of the purpose, outcomes, structure and assessment of SSCs. Many Schools have adopted their own perspective of SSCs and created different but often innovative courses.
Aims: This article brings together the Scottish Medical Schools and their experience in organising SSCs, highlights some of the challenges and offers possible solutions to some of the difficulties encountered.
Method: The SSC Director from each of the Scottish medical schools each contributed their own '12 Tips'. From these a consensus was achieved.
Results: Even though the Scottish medical schools have a wide range of curriculum and timetable formats, there was a great deal of agreement in the challenges and problems encountered in their SSC programmes, as expressed through these 12 Tips.
Conclusion: There is much diversity in SSC programmes at different medical schools, although there is also much commonality in the challenges that arise. We hope that this paper will promote thought and discussion amongst those involved, and be useful to those involved in curriculum and programme development and also to those new to medical education.

Introduction

The implementation of the guidelines from the General Medical Council (GMC) detailed in Tomorrow's Doctors (GMC 1993 & 2002) led to profound changes in the undergraduate medical curricula of medical schools across the UK. After defining information overload in undergraduate programmes as a major problem and specifying what is defined as 'core' teaching, the GMC recommended that at least 25–33% of the curriculum should be devoted to special study modules (SSMs). These SSMs, later re-labelled student selected components (SSCs) (GMC 1993 & 2002) were incorporated to give students choice and opportunities to study topics of personal interest in more depth. However, guidance in Tomorrow's Doctors on SSCs was not specific, and their implementation has varied considerably (Christopher et al. 2002).

The new curricula were to be about balance and ideals: balancing necessary and centrally defined core knowledge, skills and attitudes, with student-centred objectives achieving personal development and motivation. Students of the future needed to accept responsibility for their own learning early in their career to stimulate 'life-long learning', and personal

programmes in continuing professional development. In a later report on Strategic Options for Undergraduate Medical Education (GMC 2006), the GMC suggested that SSCs form an ideal opportunity for students to develop key skills, and for individual schools to exploit their specific strengths as themes in their curricula, providing diversity and strength throughout the UK. They recognized that students' need to develop an ability to adapt to a changing profession and be required to acquire new skills including 'critical thinking, problem solving, flexibility in team work, research skills, political awareness, leadership and management skills, life long learning, as well as dealing with uncertainty and risk'.

The Scottish Medical Schools SSC Liason Group has developed a consensus statement on the purpose of SSC programmes in Scottish Medical Schools stating:

> Student Selected Components (SSCs) are an integral part of the undergraduate medical curriculum contributing to the overall curricular learning outcomes and providing students' choice in studying, in depth, areas of particular interest. The principal learning outcome is the progressive development of skills in

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research, critical appraisal, and synthesis of evidence for maintaining good medical practice. The SSCs contribute to the development of a broad range of personal and professional skills, such as team working, communication, time and resource management, teaching and education skills, the ability to reflect and self-directed learning. They also provide opportunities to explore career options. (The Scottish Doctor 2007)

In a similar way, the Northern Medical Schools SSC Consortium of a group of English medical schools have developed consensus statements on the purpose (Murdoch-Eaton et al. 2004) and assessable key tasks of SSCs (Stark et al. 2005). Nevertheless, this ongoing innovation in medical education has not been adopted worldwide and the value of SSCs remains to be fully appraised.

This paper draws on the experiences of the Scottish Medical Schools SSC Liason Group in running SSCs to promote high quality medical education. The Group draws upon a range of curricular formats including a problem-based learning (PBL) approach (Glasgow) and a pre-clinical school (St Andrews), and more hybrid curricula that use a range of formats (Aberdeen, Dundee, Edinburgh). It highlights some common practice, challenges and innovations whilst offering 'tips' gleaned from developing and sustaining these SSC programmes.

Tip 1. A wide choice

Create diverse opportunities to promote a wide range of choices

Many students choose mainstream topics, on the basis that most will become mainstream doctors. Certainly for students in their early years these are perceived as exciting and active (images often depicted on television dramas), whilst opportunities in the lesser specialties, and fields that run within and alongside medicine, for instance medical administration, medical law, medical ethics, and medical education, may tend to be chosen less frequently. The range of SSCs in most medical schools reflects their range of clinical and research activities available. The model of a 'clinical attachment' is long-standing, and staff at all levels will usually have little difficulty in adapting it to the level, depth and focus required to make a successful SSC. Academic departments where the primary focus is research should also be strongly encouraged to develop SSC options, for instance to provide projects integrating with ongoing clinical and laboratory research.

Genuine choice is important. In our own schools, we are trying to ensure that more than 90% of students get their first choice, and 85% getting first or second choice, with at least one first choice in any given year when multiple SSCs are offered. Clearly informing students beforehand about the numbers gaining their first choice in the previous year, together with what topics are particularly popular is an effective way to narrow the gulf between expectation and reality, with self-proposal by the student themselves forming a further opportunity to provide choice.

Although the GMC recommended that 60% of SSCs must be in subjects related to medicine, (GMC 1993), the new world of healthcare is diverse and the definition of 'medicine' is wide. If we are to believe in student choice and options, opportunities can be created through active links with other university departments, NHS structures and many care-associated and lay organisations. The range of SSCs in various programmes has become very diverse, ranging from specialties not always given a true representation in medical curricula, such as occupational medicine (Fletcher & Agius 1995), to the humanities (Downie et al. 1997), the arts (Lazarus & Rosslyn 2003) and social and domestic violence (Short et al. 1997). Indeed, in one of our own programmes (University of Edinburgh Year 3 SSC) where students shadow a health care professional, to gain an understanding of the 'team' in the very broadest sense, experiences are very wide, including community midwife, social worker, complementary therapist and funeral director. The breadth of the student experience can be further widened by students sharing their diverse SSC experiences using poster sessions, presentations as individuals and groups, and through websites, wikis or blogs (Sandars 2006).

Tip 2. Learning Outcomes

Carefully define what and how the student will learn

SSCs should permit the progressive acquisition of a wide range of key skills, and the opportunity to study a topic in more depth. They should be purposeful, which is clearly expressed as learning outcomes throughout the programme. The overall final programme outcomes can be attained by establishing an incrementally growing skills base achieved by the individual SSCs, and by full integration with the core. Templates currently exist for recording outcomes such as Scottish Doctor learning outcomes (Scottish Doctor 2007).

The purpose of SSCs is to extend the depth of study, and to create opportunities to develop students' own interests for a range of potential reasons, develop research skills, support evidence-based medicine, enhance professionalism and personal skills and encourage effective communication (Murdoch-Eaton et al. 2004). Nevertheless, the line between core and optional skills can become blurred. SSCs can be used to develop or extend these core curricula outcomes or deliver others such as interdisciplinary team working, appreciation of medical ethics and governance, and applying evidence-based medicine and understanding the fundamentals of applied medical statistics. It should be recognized that there is a tension between developing experience of a wide range of skills and other learning outcomes and covering topics in depth. In many medical schools, the SSC courses within a programme are heterogeneous and the educational experience of individual students can potentially differ quite widely. Therefore, it is necessary to recognize and compensate for this heterogeneity to ensure that over the whole programme each student achieves the essential learning outcomes. A policy decision for a programme should be established as to whether a student is permitted to perform all of their SSCs in one specialty or field. One view is that it is the student's choice, and

that continuing with a theme will be advantageous, permitting greater depth of study and insight, as long as the learning outcomes are clearly mapped and can be shown to be achieved. An alternative view is that students should be required to do a wider range of SSCs in different disciplines, to broaden their horizons.

Tip 3. Integrating SSCs

SSCs should be fully integrated into the whole curriculum

Each of the components of the SSC programme should have clarity of purpose and should not be an 'add-on' activity. The learning outcomes for SSCs should be an integral part of the overall outcomes for the whole curriculum. Core skills gained during the SSC should be attainable through any specialty which offers the SSC, together with provision of an appropriate environment to study a topic at a greater depth. These learning outcomes should be mapped with those of the core to show what the SSC programme delivers and how it complements the curriculum as a whole. Most students realise that SSCs offer opportunities that the core curriculum cannot. These opportunities and the learning they produce are integral to the development of the doctor of the future. In this way, the SSC programme should be valued equally by both students and staff.

The integration of SSCs into the whole curriculum can be achieved by:

- the appointment of a SSC Director, at senior management level and with full support, to oversee the programme and to facilitate integration.
- allocation sufficient time in the curriculum to achieve the learning outcomes. This may be short or long blocks of dedicated time, or embedded with other teaching in a range of longitudinal formats. There are advantages and disadvantages to each, dependent upon the type of SSC. Dedicated time means there are no distractions and the SSC can be undertaken at distant locations, whereas embedded into other parts of the curriculum is a better reflection of the multiple tasks performed during the working life of a Doctor.
- appropriate timing and positioning of the SSCs within the curriculum should be recognized. This will have an impact on the progression through to the final learning outcomes.
- assessment of the SSCs should be an integral part of the whole assessment process, and should provide an appropriate contribution to the ranking and grading that is carried forward into determining post graduation training job applications. This indicates to students that the learning outcomes delivered by the SSC programme are essential components of the complete degree programme and its overall outcomes.
- achieving excellence in learning outcomes and assessments should be appropriately recognized, for instance by contributing to merits, distinctions and prizes at the end of each year and at final assessment.

- challenging staff if they do not consider SSCs to be of equal importance to the rest of the curriculum. Points raised in this article can contribute to these discussions.

Tip 4. Guidance, resources, training and support

Raise the importance of student and faculty support for SSCs

Clear guidance, so both students and staff know what to expect, what is required, what should and can be achieved, and indeed perhaps dispelling any illusions about what the SSC is not, is essential for a smooth running programme. Generic guidance on the learning outcomes, structure, format, milestones and timeline, and content of written work should be provided. A full range of other useful but perhaps more specific information and support that students may need should also be included, to fully complement what may be a varied programme. Good administrative support for course organisers and tutors for management and assessment is vital. This support will likely be wide-ranging including implementing systems to address the challenges for undertaking the ethical and governance reviews of projects, which can be a major constraint on what can be offered in the way of research projects (Robinson et al. 2007). Adequate financial support should also be provided that complements the resources that are actually being used by the tutor.

For students, the SSC programme can form an ideal point to learn key skills in informatics, use of the library and literature searching, critical appraisal, interpreting and applied statistics, handling data, written and verbal communication skills and working within a team. These are all very appropriate as common (generic) learning objectives, but they require access to key informatics, teaching, learning and staff resources. The format of SSCs often requires students to work in small groups or on their own across the institution or indeed away from their home institution all together, so development of good structural facilities and web-based resources that can be accessed remotely and in a timely way are needed. In this way the student also has the ability to control much of their own learning and hence gain a real sense of achievement. Nevertheless, real or actual differences in workload between SSCs can raise concerns from students about fairness, although only occasionally in our experience. Both students and tutors should be informed about what is expected, and an estimate of time committed to an SSC can be taken from both students and the staff tutor. However, a time limit should perhaps not be imposed which may curtail enthusiasm.

Clear time deadlines are essential for both students and all tutors and staff. All deadlines for submission of proposals and coursework should, in principle be non-negotiable. Nevertheless, it may help to provide a 'buffer' period in the immediate aftermath of a deadline, in order to permit some flexibility. For example, self-proposed SSCs may require modification or elaboration before they are acceptable, or a tutor or supervisor may be unavailable to provide formative

feedback for the all important review of the final draft of a student's research report.

Tip 5. Motivation and commitment

Empowering the student

The SSC programme can enable students to gain skills and attain core learning objectives with the additional motivation that they are working in an environment or specialty of their own choice. In this way, students become empowered to take responsibility for their own learning and create an opportunity for life-long learning (Graffam 2007). This is an essential part of developing student learning-centredness and curiosity, outlined as essential in Tomorrow's Doctors (GMC 1993 & 2002). Challenging students may allow them to develop a true sense of ownership of their SSC project, resulting in improved achievement of outcomes. Their initiative can also become a component of any formative or summative assessment process.

The repertoire of SSCs offered is constrained by various factors, including staffing levels and other resource issues, often financial. Students should be allowed to exercise a degree of choice in the selection of SSCs but the students' expectations should be tailored to what is realistic, possible or available. They should also be expected to conduct themselves in a professional manner throughout the programme especially if they are not able to obtain their first choice of SSC. However, limitations on available repertoire of organized SSCs may undermine the fundamental distinction between SSCs and other parts of the curriculum, namely the ability of students to exercise choice in their educational experiences.

Self-proposed SSCs allow students to come up with their own ideas, set their own learning outcomes within the boundaries of the course, and represent student choice in its clearest form. The consequences of self-proposal mean that the responsibility of organising their SSC rests largely or exclusively with the student, giving them 'ownership' together with a greater degree of responsibility, and also perhaps on occasion more of an opportunity for the proposal to end up in difficulties. From our experience, a keen and motivated student requiring a potential tutor on a topic within that tutor's own sphere of interest is much more likely to succeed in recruiting that member of staff than any amount of cajoling by the course organizer!

Tip 6. Group working

Create opportunities for uni-professional and inter-professional team working

SSCs can be conducted either in groups or individually. SSCs conducted in groups provide an ideal opportunity for developing the learning outcomes of working with healthcare colleagues, and demonstrating effective team working and leadership skills. These skills include understanding the different roles played in group working, group dynamics and the different aspirations of other team members. It creates opportunities for other learning, e.g. Belbin's work on group

dynamics (Belbin 1993) to extend student learning, an understanding of the very diverse teamwork required for effective healthcare and the development and enhancement of team communication skills. The importance of setting and agreeing ground rules, building trust with team members, and working together to an agreed output, using analysis and reflection are core learning outcomes. These skills are transferable to other parts of the curriculum, specifically the integration into a clinical care team.

Tutors need to develop skills in facilitating rather than leading such self-directing groups and hence working in teams creates a need for staff development, as in PBL (Azer 2005). If developing team working skills represents an overall learning outcome of the SSC programme it should be ensured that every student participates in a specified number of group-based SSCs.

Tip 7. Tutor diversity

Recruit a large number of diverse tutors from a wide number of specialties

Recruitment of a large number of tutors from different backgrounds increases the scope of the choice of options available to students and further supports the principle of student selection. It ensures that SSCs are not reliant upon a few staff from a limited range of specialties. It helps to spread and perhaps rotate the workload, preventing staff burn-out and high tutor turnover. It also facilitates the development of informal networks of collaborative staff, improving staff moral and in turn making staff recruitment somewhat easier. For the sustainability of the course, it is essential that staff tutors regard SSCs as useful, enjoyable, integrated into the curriculum and valued. If so, they will remain enthusiastic and committed to the programme. The individual courses contributing to the SSC programme are there for the long term. They must continue to evolve, diversify, move with the change in healthcare and respond to curriculum developments and to student need. Nevertheless, recruitment of staff frequently remains a challenge.

When self-proposal by the student is encouraged, consider generating an inclusive list of all potential staff tutors, their specialty and field of interest, then allow the students to take the initiative. Much of the information required probably already exists on the institution website, and disseminating this in an accessible form provides a practical means of support for the student and a way to recruit and rotate tutors.

Tip 8. Tutor training and motivation

Create a tutor work-force that is well-trained and informed

If the course is well supported and the administrative and assessment burden is kept in check, then staff are able to utilise their time to work with motivated students. Any course that is well supported, well designed, responds to the learning objectives and is delivered by a group of informed and enthusiastic tutors will be effective and well received

by students. An SSC can link a keen student or groups of students with a member of staff on a topic of their own interest, to participate in some research or audit, to the mutual benefit of both student and supervisor. The tutor, as well as teaching can also find that the SSC contributes to their ongoing area of interest. Staff may also consider there are potential but hidden more altruistic benefits, including trying to attract good candidates into a particular junior doctor programme or less mainstream specialty. These staff may have limited exposure in the core part of the curriculum or where the teaching is perceived as so integrated into a systems-based approach that understanding the specialty is opaque (radiology, dermatology, otolaryngology, ophthalmology, and pathology may be examples of this). Hence, the SSC provides the student with an important exposure to a much wider range of career options and to members of staff outside the usual obvious range of core specialities.

For course organizers, the training of staff tutors can be a major challenge, with potentially large numbers of staff involved who are perhaps spread across many sites. Staff development should be two-fold:

- provide an opportunity to describe and discuss the aims, methods and outcomes of the SSC programme, assuring commonality of purpose;
- create an on-going dialogue between tutors and course organizer to stimulate thinking in modern medical education.

How this is delivered depends on the School concerned, with diversity existing between regular small-group discussions, formal lectures, e-discussion boards, distance or on-line learning and workbooks.

Staff are continually being asked to contribute more, whether it is to their service provision, research, other administrative duties, external contributions, as well as to teaching, and time commitment to the SSC needs be made clear at the outset. In an era whereby teaching is integrated into contractual arrangements and academic activity is expected, staff development needs to be creative, rewarded and expected. For instance, involvement with SSCs can be recognized as contributing time to supporting professional activities (SPA) that are being incorporated into many consultants' annual job plans and contracts in the UK. SSCs can provide some staff with their first opportunity to develop teaching skills in the area of small groups, and to facilitate the development of skills, rather than just imparting knowledge. Underlying all of this is the recognition by the institution of the value of staff delivering high quality teaching.

Tip 9. Innovation and good ideas

Recognize new developments in SSCs

Student selected components can be a fertile breeding ground for new ideas. Good ideas may come from the students, staff, and new medical education techniques, from outside medicine and healthcare or from outside academia. SSCs often stretch the boundaries of medical education, creating very different activities and stimulating thought on what are the needs of the

doctors of the future. Some of these innovations may prove difficult to implement, and often warrant increased faculty support. Encouragement must be given to students and staff to develop, provide, evaluate and publish their SSCs. Students are often very good at pushing on perceived boundaries. With faculty support, some flexibility within the management and even assessment, and with care to address the required learning outcomes, these self-proposed SSCs can be an opportunity to break new ground. For many years overseas electives were a curriculum extra for those who could afford the activity or those who wished for a different summer holiday. SSCs have provided an opportunity to give structure, value and need for these electives, as long as quality assurance is in place.

Tip 10. Assessment

Assessment should be robust but flexible

Assessment of SSCs is perhaps one of the more challenging and problematic issues, particularly when compared with other aspects of the core curriculum e.g. clinical knowledge, where assessment methods are becoming well established. Self-proposed SSCs are potentially even more problematic.

The key issues of assessment relate to:

- Setting standards – measures that are normally undertaken to ensure standardization (e.g. standard-setting) are much more difficult to apply evenly across a varied SSC programme.
- Standardizing the marking of projects and working to a specific marking template with a wide and diverse group of tutors.
- Fairness and equality across the SSC programme– relationships created by extended working together and bias from tutor interest are difficult to disentangle from real, objective assessment.
- Factoring in or out attitudinal characteristics and professionalism.

Consider using a blend of assessment methods

There are many ways of trying to address these issues surrounding assessment, none of them are considered perfect, but a blend of methods for individual courses may be appropriate:

- *Written thesis work* (*reviewed by third parties including external examiners*): The difference in the weighting individual supervisors attach to written work represents a more fundamental problem, even when this weighting is standardized on the assessment form. Supervisor tutors need to explicitly distinguish between a student's intrinsic performance in the SSC (enthusiasm, interest, etc) and their written work, particularly when there is a discrepancy in these aspects of performance. Some very practical or skills based SSCs may not lend themselves easily to conventional written reports so alternative forms of assessment may be required.

- *Performance*: This is potentially complex, but simplified schemes linked with other types of assessment may be useful (Pulito et al. 2007).
- *Reflective practice*: Reflective portfolios are being used more frequently in undergraduate and postgraduate medical education, but their assessment is often challenging (Driessen et al. 2005). Much can also be learned through exchange between medical schools, but also between science, the arts and humanities and education, faculties within institutions and other vocations which may have much more experience in utilizing reflective practice and portfolios.
- *360 degree feedback*: Other members of staff across the whole care team, patients and clients can constructively contribute.
- *Professionalism*: There is much interest in the current literature in recognizing and assessing professionalism and fitness to practice (Cruess & Cruess 2006; Korszun et al. 2006; Parker 2006). It should be made clear in the learning outcomes for students and within staff development of the importance to be placed upon this and the consequences of failing to achieve the appropriate level of competence.
- *Peer feedback*: This can be formative or contribute to summative assessments and develops a set of important professional skills, including enhancement of professionalism (Schonrock-Adema et al. 2007) and being able to give and also receive and act on peer feedback (Ross & Cameron 2007).
- *Double marking*: Double (or multiple) marking of presentations which form part of assessment is commonplace, and usual good practice with fail or borderline marks, but double-marking of written work is sometimes less frequent, often related to its time consuming effort and resource implications. Internal double-marking allows for standardization and comparison of quality of student work. Its main drawback is that is may be uneven across the programme, but with good guidance and increased experience of markers this variation may decrease. Double-marking centrally by a single individual within the medical school e.g. the relevant course organizer is unlikely to be feasible, although internal and external examiner review of high, low, borderline and fail grades, with a sample of middle grades may be more realistic.
- *Faculty and Supervisors' feedback on assessment*: For the last three years, Dundee University Medical School has written to all supervisors advising them of the breakdown of all student grades, the grades they gave and their relation to the relevant peer group. It is explicitly recognized that deviation from the mean does not identify hawks or doves as such and this initiative has been well received, contributing well to staff development and discussion on standardization.

Identify students needing support

The SSC programme can present an important way of identifying students who are deficient in some core 'professionalism' skills, although they may be performing satisfactorily in other types of knowledge-based assessment. Flagging these students early allows remedial action to be taken before serious concerns are raised, often much later,

about their professional development and potentially even their fitness to practice.

Tip 11. Course evaluation

Evaluation is essential for and intrinsically linked to development

As part of their internal quality assurance and management, most schools provide opportunity for evaluation and feedback collected either verbally or by standard questionnaires–it is often considerable. Review is essential to identify good examples of practice and promote their continuation, and those SSC requiring improvement and faculty support. However, care needs to be taken determining what constitutes a 'not as good' SSC.

Student interest may vary from year to year. Excellent tutoring, as judged by students, is equally related to the students' ability to gain easy marks. Poor feedback scores are not always confident parameters, for instance if a group does not work well together, or if the project allocated is not their preferred choice. Other data may be available for analysis, e.g. outcomes data, or data from the selection process which will give indication of relative popularity of SSCs. External examiners are a more formal part of the review process, as are GMC visits. More informal feedback involving some discussion with both students and staff may be most useful and constructive. The important point is when appropriate act on it promptly! In particular when developing a new part of the SSC programme, refinements may become very obvious from well directed and analysed feedback.

Tip 12. Encourage students

Provide good feedback and reward excellence

Constructive formative and summative feedback to students arising from a range of potential sources, including tutors, assessors, peers, and other staff is an important aspect in the progressive SSCs skills development across the degree programme. SSC programmes should use standard feedback sheets to provide each student with constructive feedback on each component.

Many medical schools recognise excellence in SSCs, for instance through prizes, merits or distinctions. However, problems do arise, both related to standardization and consistency of assessment:

- some SSCs are more likely to generically score higher than others;
- due to their diversity, SSCs are often like comparing 'apples and oranges', making it very difficult to fairly award prizes or credits;
- individual SSCs may be associated with specific prizes, possibly donated by individuals for a specific purpose before the curriculum changes, or by the department involved, but these will be highly inconsistent across the course.

A more impartial approach may be to encourage students to publish good material in peer-reviewed journals, contributing to the literature as well as enhancing their learning portfolios

and CV for future career enhancement. This can be applied across the programme and therefore a more evenly applicable form of reward. Similarly, students who have carried out audit projects that have influenced local practice could have some recognition to include in their portfolio and CV. Particularly for the parts of the SSC course that are robustly assessed, rewards should be at the same level as other aspects of the core part of the course. For instance, prizes could be awarded for consistently excellent SSC performance, and indeed at Liverpool final Honours are awarded on the basis of SSCs (Liverpool Undergraduate Medical Curriculum 2007).

Conclusions

As a result of earlier GMC recommendations, SSCs have now become an essential element of the new undergraduate medical curricula in the UK and could arguably be considered their most innovative aspect. The skills gained in SSCs both complement the core curriculum and contribute to the attainment of the overall GMC learning outcomes. SSCs provide the student with an opportunity to learn a wide range of professional and lifelong learning skills to build upon during their professional careers to maintain good medical practice. They often generate stimulating and challenging experiences for both students and staff. However, these can only occur if SSCs are structured correctly, integrated appropriately within the curriculum and are the product of a robust staff and student development programme, enhanced by effective resources, support, assessment and feedback and motivational rewards. We hope the suggested tips may prove to be useful in generating debate for staff interested in further developing their own SSC programmes.

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To initiate the process all authors contributed their own '12 tips'. On the basis of these, SR wrote the first draft. All commented and contributed to subsequent drafts which SR and TG finalised. All approved the final submission.

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