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The UNSW Medicine Student Experience Questionnaire (MedSEQ)

A Synopsis of its Development, Features and Utility

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Preliminary Comment

This paper provides general information for people with an interest in the UNSW MedSEQ. It is intentionally informal in nature. More details are contained in other documents. For further information please contact Dr Helen Scicluna in the Medical Education and Student Office, Faculty of Medicine, UNSW, Sydney, Australia.

1. Background and Context

The MedSEQ was developed in 2005/2006 by the Student Experience Working Party (SEWP), a sub-committee of the Faculty of Medicine's Program Evaluation and Improvement Group (PEIG). The PEIG was formed to support the implementation of the newly designed MBBS Program, particularly ongoing evaluation and improvement (see Gibson et al, 2008).

The PEIG had scoped its work around four dimensions or "aspects" of the program (and by extension, program quality): curriculum and resources; staff and teaching; student experience; and student and graduate outcomes. As part of the approach to the Student Experience aspect, a decision was made to develop the MedSEQ and the SEWP took responsibility for this task. Preliminary investigation work was carried out in 2005, including a comprehensive student consultation process to identify what the 'Student Experience', as a concept and in practice, meant to UNSW Medicine students. Following this process, the instrument was developed and trialled successfully in 2006. It was administered for a second time in 2008 (see Appendix 1) and the intention is to do so again in 2010.

Collectively, the quantitative and qualitative data generated by the MedSEQ have provided valuable insights into the perceptions students have of their experience. Results have been used within the Faculty to report on the students' judgments of the Program, help guide curriculum review, and initiate improvements in important aspects of teaching and learning.

2. Development of the MedSEQ

The first version of the MedSEQ was based on a comprehensive development process spanning 2005/2006. The process was guided by the broad intended purpose of the instrument and some other key principles. These are described briefly below.

2.1 Purpose of the MedSEQ

The MedSEQ was to serve the two classical evaluation purposes, *summative* and *formative*. Learning about aspects of the student experience (SE), as another valuable purpose of evaluation, was viewed as being encompassed by the formative purpose.

The instrument needed to enable the Faculty to monitor, understand and report on the SE. Effective reporting is necessary for both internal (within the university) purposes and for external purposes (e.g., requirements of the Australian Medical Council).

The instrument also has an important formative purpose, albeit at a relatively macro (program) level. It needs to provide accurate evaluative data that is suitable (e.g., meaningful and precise enough) for suggesting where and how improvements can be made on the main facets of the SE.

2.2 Main Principles Guiding Development of the MedSEQ

The following broad principles were established to guide the MedSEQ's development.

- 1) The SE variable/construct being tapped by the instrument needs to be grounded in the understandings and priorities of UNSW Medicine students.
- 2) Building on principle 1, the instrument needs to yield data having good validity for its intended summative and formative purposes.
- 3) Building on principles 1 and 2, the instrument needs to be well designed, both technically (e.g., item and scale types used) and practically (e.g., clarity; structure; ease of completion).
- 4) Notwithstanding the importance of principles 1-3, the MedSEQ is to be a practical evaluation instrument. It is not to be held up as an exemplar or ground-breaker in technical or psychometric design.

2.3 The Development Process and MedSEQ's Basic Features

During 2005, the SEWP implemented a student consultation process across the Faculty, including the teaching hospitals, to identify the conceptions held by students of the term 'Student Experience', and the facets of the SE that Medicine students considered to be most important. As a result of this process, five main facets of the SE were identified.

- Learning, teaching and assessment
- Organisation and student understanding of the program
- Community interaction and value
- Student support
- Resources

The MedSEQ was constructed based around these five facets. Guided in part by details provided by the students during the consultative process, small sets of quantitative scale-based items were constructed to measure each facet. Most of these items are based on a 5-point scale (see below). One item, intended to obtain an indication of the student's overall satisfaction, uses a 4-point modified Likert scale. Two free-response items were also included to enable students to provide elaborations or their views on other matters.

Decisions about item and scale types to be used were based on a careful review of options and ideas in the light of concerns for validity of data. Along with other technical aspects, including reliability, the meaningfulness of items and scales to students, and the meaningfulness and utility value of resulting data for people using them, are considered important aspects of validity in this context. With these considerations in mind, for the fixed response quantitative items, a 'frequency of occurrence' (of an experience or condition) scale was used with five (5) categories/points ranging from 'only rarely' to 'almost always'.

For the 2006 (first) version of MedSEQ, two additional items were incorporated to obtain data to check the validity of findings from the earlier student consultative process (e.g., the perceived differential importance of the 5 facets of the SE). While more than one hundred students participated in the consultative process, it was hoped that around five hundred students would respond in the 2006 pilot administration. One of these items enabled students to rate the importance of each of the separate SE facets (e.g., Resources) from 'not at all important' to 'very important'. The other item asked students to rank the importance of the facets, with a ranking of '1' to be assigned to the most important and '5' to the least important.

Clear guidelines for students completing the instrument were also considered to be an important design feature.

3. The 2006 MedSEQ Trial

The 2006 trial of the MedSEQ as an online instrument was implemented successfully. A total of 505 students provided usable responses, representing a response rate of more than 40% of the student population in the MBBS program. Comparison of the sample characteristics against the larger population revealed that no group of students was significantly under-represented.

Students reported no problems with their interaction with the instrument and they indicated good initial support for its intent and spirit, particularly the Faculty's commitment to taking student feedback seriously and acting on it wherever possible to improve the SE.

Both the quantitative and qualitative data obtained from the trial provided clear and valuable information for both summative and formative program evaluation purposes. The main uses of the data and derived findings are described briefly in section 5 below.

The trial also provided useful data to validate the findings of the 2005 student consultative process (and the use in the instrument of the five facets of the SE identified by this process). The large sample of students in the trial indicated that all of the five facets were important, and that 'Learning, Teaching and Assessment' was clearly the most important one.

Evidence for the overall validity of the data generated by the MedSEQ trial instrument is discussed briefly in section 4 below.

4. Properties and Validation of the MedSEQ

As indicated above, the MedSEQ is intended to be a useful evaluation instrument at program level. There was no aspiration to psychometric purity, general applicability across program settings, or other exemplary characteristics. Nevertheless, efforts were made to achieve good design and properties of the instrument and the data generated by it.

There is clear evidence, of different kinds, that the data generated by the MedSEQ have at least good levels of validity for their intended purposes. First, the content and structure of the MedSEQ are underpinned by UNSW Medicine students' understandings of and priorities concerning the SE. This is sound content (and to some extent construct) related evidence for the validity of the data for reporting on the overall quality of the SE in Medicine at UNSW, and for informing improvement. Second, the findings derived from the quantitative (fixed response) items concerning the 5 facets of the SE have been consistent with the findings from the free response (qualitative) items, where students can raise any matters they wish. This reinforces the relevance and meaningfulness to students of the fixed response items and suggests that response data from these items will have at least reasonable validity for making judgments about the merits of the SE, and for identifying areas for improvement. Third, and related to the above point, findings from the MedSEQ, both the 2006 trial and the 2008 administration, made sense and rang true to members of the Faculty who are central to leading and teaching the program. Their existing knowledge of how the program was going was based in part on their up-close experience, and on data from other evaluation processes (e.g., the University's Course and Teaching Evaluation and Improvement process). In addition to the findings 'making sense', they were generally suggestive of what aspects of the SE

could be improved and what actions would enable improvement, whether such actions were possible in the short-term or not. Meaningfulness and perceived usefulness of evaluative data are good indicators of their validity. Examples of the different kinds of findings derived from the MedSEQ, both for reporting and improvement purposes can be viewed in either of the reports: Boyle and Hill (2006); or McNeil and Scicluna (2009).

The evidence of validity described briefly above is the most important kind given the practical evaluation purposes of the MedSEQ. Nevertheless, there is a concern for the internal reliability of the instrument. Starting with the 2006 trial, internal reliability analyses were conducted, focusing on the clusters of items used to tap students' perceptions (measurements) of each facet of the SE (e.g., Student Support). In the trial, values for Cronbach's alpha coefficient for 4 of the 5 facets were between 0.71 and 0.80, and for one facet (Organisation and Student Understanding of the Program) the value was 0.63. These values can be viewed as being at least adequate for an instrument of this kind and would justify aggregating the item response data for each facet, if necessary for practical evaluation purposes. Analyses of data from the 2008 administration of the MedSEQ yielded very similar results for internal reliability.

5. Utility of the MedSEQ Data

As intended, data from administrations of the MedSEQ in 2006 and 2008 have been used effectively for both summative and formative purposes. Overlapping these two purposes, the data are enabling learning about how the program is working and the tracking of trends in student perceptions of the new curriculum. The 2006 data have provided a baseline, as approximately half of the student respondents in the trial were the first to experience the new program, and half were students completing their studies in the previous program. Data from the 2008 administration enabled valuable initial comparisons to be made (e.g., between perceptions of Phase 1 students in 2008 and those in 2006). Recently, MedSEQ data have also been used for scholarly purposes.

In brief, data from the MedSEQ have been used for:

- 1) Reporting and making recommendations to committees, teams and relevant individuals within the Faculty and the University (e.g., report to the Curriculum Development Committee (CDC) which resulted in formation of a Curriculum Review subcommittee; presentation at 2009 Faculty Strategic Planning Day.)
- 2) Informing academics and curriculum leaders in the Faculty to assist them with professional and course development activities (e.g., the Staff and Teaching Working Party have used MedSEQ data to improve Phase 1 facilitator selection and training.)
- 3) Facilitating improvements in learning and teaching practices and materials (e.g., the CDC initiated a curriculum review as a result of MedSEQ data which resulted in structural change to Phases 1 and 2 to be implemented in 2010.)

- 4) Enhancing learning and understanding about how aspects of the (new) Medicine curriculum at UNSW are working, such as scenario group learning and clinical teams (e.g., the Phase 1 Committee and Assessment Committees have responded to MedSEQ data with proposals to improve the student experience.)
- 5) 'Triangulation' with data from other program and course level evaluation processes to clarify (e.g., strengthen confidence in) knowledge about aspects of the SE in Medicine (e.g., data from a separate Phase 1 Evaluation, the UNSW-wide Student Satisfaction Survey, and the 2009 Learning and Teaching Performance Fund results have been considered with MedSEQ data to provide evidence for the development of generic capabilities (graduate attributes) in UNSW Medicine students.)
- 6) Presenting ideas and learning about the development and use of custom-designed evaluation instruments and processes focusing on the student experience in Medicine programs.

6. Conclusion

The MedSEQ was designed to enable the periodic and systematic gathering of students' perceptions and judgments of the quality of their experience in the Medicine (MBBS) program at UNSW. The instrument's initial design was founded on information about how students conceive of their academic experience gathered directly from the 2005 Medicine student cohort at UNSW. Care has also been taken to design an instrument that yields valid data for both its summative and formative evaluation purposes, essentially, reporting on the overall merits of the student experience aspect of the program and informing improvement. Two administrations of the MedSEQ over three years have provided clear evidence that it generates valid (incorporating useful) data for its intended purposes. This outcome supports the case for the investment of the time and care required at faculty level in universities to develop program and context specific instruments and processes for academic program evaluation.

References

- Boyle, P. and Hill, B. (2006). The Medicine Student Experience Questionnaire (MedSEQ): Summary report of initial findings from the 2006 trial. *UNSW Report*. December 2006.
- Gibson KA, Boyle P, Black DA, Cunningham M, Grimm MC, McNeil HP. (2008). Enhancing evaluation in an undergraduate medical education program. *Academic Medicine* **83**:787-793.
- McNeil, HP. and Scicluna H. (2009). An Evaluation of the Medicine-3802 MBBS Program – The Student Experience. *UNSW Report*. May 2009. (www.peig.med.unsw.edu.au)

Appendix 1: MedSEQ 2008

Important General Guidelines for Students

Dear Medical Student

As part of our aim to continually improve your experience as a student in the UNSW Medicine program I invite you to complete this questionnaire on your overall student experience within the Faculty of Medicine. This survey is part of the Faculty's strategy to more systematically evaluate and improve medical students' experience.

The feedback you provide will be used by the Faculty of Medicine to enhance aspects of the student experience over time. Survey results will also be communicated to students and staff to keep them informed of the wider student perspective on the quality of the student experience, including aspects that students consider to be strengths or excellent, and those that need further improvement.

The information you are providing is extremely valuable, so it is essential that you take care when completing this form. Please be as accurate as possible when completing it.

All students that participate in the questionnaire will go into a draw to win one of five prizes valued at \$250.

This survey is completely confidential. We are committed to keeping secure the information you provide to us, and we will take all reasonable precautions to protect your personally identifiable information from loss, misuse, unauthorised access, alteration or disclosure. Participation in this survey is voluntary. Your decision whether or not to participate will have no bearing on your assessments or your relationship with UNSW.

If you would like further information about this study please do not hesitate to contact Dr Helen Scicluna, Office of Medical Education on (02) 9385 1766 or h.scicluna@unsw.edu.au.

This study has been approved by the UNSW Human Research Ethics Advisory Medical/Community Panel.

Complaints may be directed to the Ethics Secretariat, The University of New South Wales, SYDNEY 2052

AUSTRALIA (phone 9385 4234, fax 9385 6648, email ethics.sec@unsw.edu.au). Any complaints you make will be investigated promptly and you will be informed of the outcome.

I thank you in advance and good luck in the draw for the cash prizes.

With best wishes

Professor Patrick McNeil

Chair

Program Evaluation and Improvement Group

Faculty of Medicine

The University of New South Wales

Prize Draw Identification

Students wishing to enter the prize draw are asked to enter their UNSW Student Number below. This information will be used solely for the purpose of identifying the prize winner.

If you do not wish to provide this information simply click the "Next" button on the bottom of this page to continue.

1. Student number:

Part 1: Student Background and Characteristics

* 2. Program:

MBBS 3801

MBBS 3802

BSc MBBS

BA MBBS

* 3. Year:

1

2

3

4

5

6

4. Clinical Location:

POW

SWS

StV

StG

Sutherland

Woll

Rural

* 5. Which of the following categories do you identify yourself with most strongly?

Australian/Urban

Australian/Rural

International

* 6. Do you identify yourself as an Aboriginal and Torres Strait Islander?

Yes

No

7. If you are an international student please indicate your country of origin

* 8. Your Sex:

Female

Male

* 9. What is your age?

Part 2: Ratings of Aspects of the Student Experience in Medicine

In this section you are asked to provide a response (rating) for each item listed under five broad "Aspects" of the Student Experience in Medicine. To provide a rating you are asked to indicate the frequency with which you have experienced specified circumstances, conditions or actions.

Aspect 1: Organisation and Student Understanding of the Program

* 10. Key aspects of the philosophy of the Medicine program are communicated effectively to students (e.g. the rationale for scenario or case-based learning; why self-directed learning is important)

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 11. Clear information is provided about key aspects of the Medicine program and its courses (e.g. course goals; learning activities; assessment requirements and methods)

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 12. Policies and processes affecting all students are understood by students (e.g. allocation of clinical attachments; allocation to course order)

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 13. Pathways and procedures for students who experience special circumstances are clear to students (e.g. course failure; personal difficulties)

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 14. Clear information is provided for students to assist them in making important transitions within the Medicine program (e.g. pre-clinical to clinical; between Phases)

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 15. Overall, the different courses and elements of the Medicine program relate to each other in a meaningful and coherent fashion

Only rarely

Sometimes

About half the time

Frequently

Almost always

Aspect 2: Learning, Teaching and Assessment

* 16. Through their teaching and other practices, teachers/supervisors stimulate my interest in the topics and goals of the courses and clinical placements

- Only rarely
- Sometimes
- About half the time
- Frequently
- Almost always

* 17. Teachers/supervisors provide constructive feedback that helps me to learn and develop my skills

- Only rarely
- Sometimes
- About half the time
- Frequently
- Almost always

* 18. Learning goals (e.g. that identify the knowledge, understanding and skills that I am expected to develop) are communicated clearly to me

- Only rarely
- Sometimes
- About half the time
- Frequently
- Almost always

* 19. Formal learning activities (e.g. scenario groups; lectures; case method tutorials) are effective for developing the knowledge and skills expected of me

- Only rarely
- Sometimes
- About half the time
- Frequently
- Almost always

* 20. The learning experiences in the Medicine program are effective for developing my understanding of how Medicine as a profession is practised

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 21. Student feedback about teaching and learning provided by students is taken seriously by the Faculty

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 22. Assessment requirements or expectations in different courses are communicated clearly

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 23. Assessment tasks and requirements are consistent with the learning expectations communicated to me

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 24. The learning goals for students in real clinical settings (e.g. hospital or community attachments) are communicated clearly

Only rarely

Sometimes

About half the time

Frequently

Almost always

Aspect 3: Community Interaction and Value

* 25. There are adequate opportunities for students to participate in valuable communities (e.g. with student colleagues; with clinicians; with people in the wider community)

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 26. I obtain significant benefits from the communities in which I participate

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 27. The roles and activities I experience in clinical settings (e.g. clinical teams) are valuable for my learning and skills development

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 28. Other people (tutors; supervisors; other health workers) understand and support my role as a student in clinical settings

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 29. Relationships and collaborations with other students are valuable, particularly for helping me to achieve my learning goals

Only rarely

Sometimes

About half the time

Frequently

Almost always

Aspect 4: Student Support

* 30. When I need support mechanisms (e.g. guidance on an assessment task; help in dealing with a difficult clinical experience) such support is available and effective

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 31. Administrative staff on-campus are helpful and show care for my academic problems and personal circumstances

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 32. Academic staff on-campus are helpful and show care for my academic problems and personal circumstances

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 33. Administrative staff in clinical settings (e.g. hospitals; community centres) are helpful and show care for my academic problems and personal circumstances

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 34. Clinicians who have teaching roles (e.g. course tutors; term supervisors) are helpful and show care for my academic problems and personal circumstances

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 35. As a UNSW Medicine student I am able to achieve a reasonable balance between study and other life demands (e.g. family matters; part-time work)

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 36. Overall, the Faculty tries to accommodate the special needs of students

Only rarely

Sometimes

About half the time

Frequently

Almost always

Aspect 5: Resources

* 37. Important resources I need for learning are readily available (e.g. books; journals; web-based materials)

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 38. Effective information technology and related support are provided by the Faculty

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 39. Learning environments (e.g. campus spaces; clinical settings) are effective for student learning activities

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 40. I have adequate access to patients to support my learning

Only rarely

Sometimes

About half the time

Frequently

Almost always

* 41. The resources I need to support my learning in real clinical settings are readily available (e.g. anatomical models; out-patient clinic space; tutorial rooms)

Only rarely

Sometimes

About half the time

Frequently

Almost always

Part 3: Overall Satisfaction with the Student Experience in Medicine

* 42. All things considered, how do you rate your level of satisfaction with your experience as a student in Medicine at UNSW?

Very dissatisfied

Dissatisfied

Satisfied

Highy satisfied

Part 4: Your comments on the Student Experience in Medicine

Your specific feedback on the best features of the Student Experience in Medicine and areas that need to be improved will be valued highly.

43. The BEST FEATURES of the Student Experience in Medicine are:

44. The features of the Student Experience in Medicine that NEED IMPROVING are*:

* Where possible, suggest ways of improving any feature you identify

Part 5: Ratings of the Importance of Aspects of the Student Experience

The "Aspects" of the Student Experience in Medicine covered in Part 2 of this trial questionnaire were derived after a consultation process with approximately fifty Medicine students late in 2005. As part of this trial we need the wider student body to indicate the importance of these aspects.

In this section, please provide:

- a. Your individual rating of the importance of each "Aspect", particularly in terms of how significant each is for achieving an excellent student experience; and
- b. Your ranking to indicate the relative importance of each "Aspect" for achieving an excellent student experience.

5a. Ratings of Importance of Aspects

Keeping in mind your overall experience as a student in Medicine at UNSW, please provide your own rating of the IMPORTANCE of each of the following broad "Aspects". Please use the rating scale provided below to record your response:

* 45.

	Not at all important	Not very important	Important	Very important
Organisation and Student Understanding of the Program	jn	jn	jn	jn
Learning, Teaching and Assessment	jn	jn	jn	jn
Community Interaction and Value	jn	jn	jn	jn
Student Support	jn	jn	jn	jn
Resources	jn	jn	jn	jn

5b. Ranking of the Relative Importance of Aspects

Keeping in mind your overall experience as a student in Medicine at UNSW, please provide a ranking to indicate the RELATIVE IMPORTANCE of each of the "Aspects"

Please rank the Aspects from 1 to 5, using "1" to indicate the most important one(s). If you believe certain Aspects are of equal importance, please indicate this by assigning the same ranking (number) to those Aspects (e.g. you could assign a ranking of "1" to more than one Aspect).

* 46.

Resources	<input type="text"/>
Student Support	<input type="text"/>
Organisation and Student Understanding of the Program	<input type="text"/>
Learning, Teaching and Assessment	<input type="text"/>
Community Interaction and Value	<input type="text"/>

Thank you

Thank you for taking the time to complete this questionnaire.
The winners of the prizes will be announced in November 2008.