

PROCEDURES FOR THE ANALYSIS OF FIRST YEAR HIGHER EDUCATION SUBJECTS TO DETERMINE FITNESS FOR PURPOSE – DICK AUDLEY UTS

[PAPER FOR THE AAIR ANNUAL FORUM 12 – 14 NOVEMBER 2012]

ABSTRACT

First year subjects are not simply the foundation upon which undergraduate awards are constructed, but also represent the student's first exposure to tertiary education, and may exert a serious influence on future attitudes to study. For this reason it is essential that these subjects be "fit for purpose", and that this be verifiable when subjects are submitted for approval.

There has been little written on determining the "fitness for purpose" of higher education subjects. The approach taken previously, whereby experts were requested to make subjective judgements has become obsolete with the development of "evidence based" course approval and this has necessitated the development of objective methods to confirm quality.

The procedures described are replicable by assessors across a range of disciplines, and include consideration of the nature of the subject, its place in the curriculum, the intent of the subject developer, the knowledge (or worse, the misinformation or misconception) that students may bring to their first lecture, the reception the subject is likely to receive, and the impact that the offer of that particular subject may have on the institution.

The paper does not address the delivery environment or the role of the teacher, and confines itself solely to those tests that might be applied when subjects are presented for accreditation. While the procedures in this paper focus specifically on introductory first year subjects the principles are applicable to all levels of post secondary education.

Key words – Strategic Course Analysis, First Year Subjects, Fitness for Purpose

There has been much talk in recent times about the experience of students in their first year of higher education, although it appears that greater emphasis has been placed on the quality of teaching rather than on the inherent quality

of the subjects themselves. (James et al 2010). This may be due to the fact that academics have traditionally focused on the things over which they have the greatest control, such as the classroom environment, rather than those beyond their scope within the “prescribed elements” of the curriculum (Krause et al 2005)

This emphasis might also be attributed to the fact that while there are many means for assessing and improving the quality of teaching there have been few instruments for determining the “fitness for purpose” of what is being delivered. (Kift, S, 2005; Wilson & Lizzio 2009),

It was customary in the past to delegate decisions on the fitness of subjects to experts in the discipline, who gave their opinion on whether particular subjects were appropriate for the program on offer and the level of student. This judgement was subjective and dependent not simply on the knowledge and experience of assessors but on their feelings at the time, and there was no guarantee that a recommendation made on one occasion would be replicated on another. Assessors were rarely required to justify their decision, and if challenged by an aggrieved party could always revert to “gut feeling” – or more plainly to a personal insight gained through intuition rather than fact. (Diamond 2002)

This approach to the accreditation of subjects has been swept aside by the emergence of “evidence based” course approval using the tools of strategic course analysis. It has now become possible to apply objective tests to anything that may be presented for accreditation – courses, majors and units – with the outcome being capable of replication by independent assessors time and again. While it is not my intention to provide an exhaustive description of the methods used in strategic course analysis, it is perhaps sufficient to suggest that this has made a significant contribution to improving decisions at the point of approval. (Smith & Morris 2011)

Introductory subjects – the subjects studied in the first or second semester at university – are important for two reasons. The first is that these form the foundation upon which undergraduate degrees are built, and if ill conceived

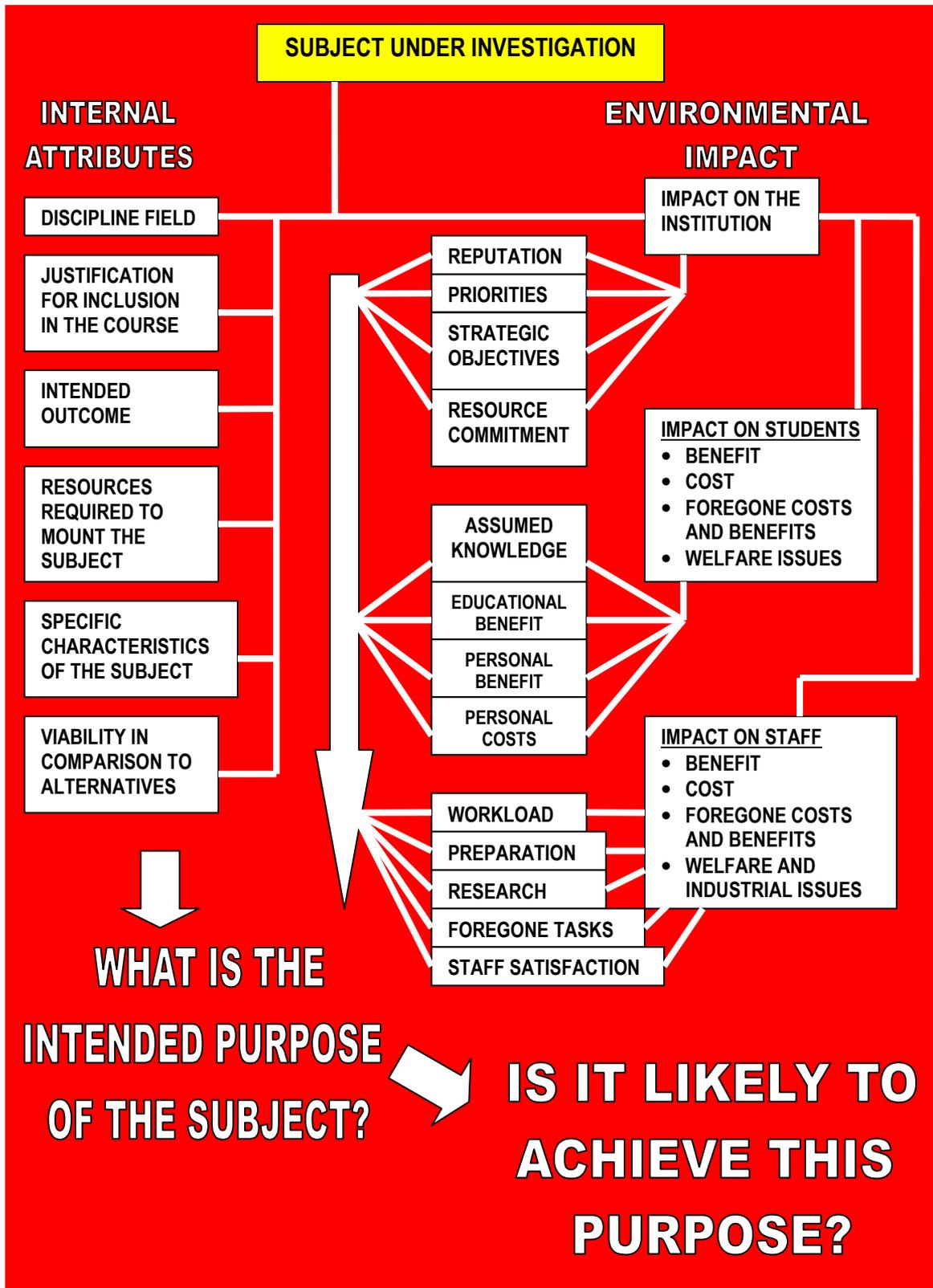
may impair or destabilize the subsequent program of learning. The second is that these subjects - if poorly structured or of questionable relevance - may distort the attitude of students to future study.

For this reason it was believed important to develop procedures to assess the “fitness for purpose” of first year subjects at the point of initial approval. While it is possible for even the finest subjects - like the safest cars - to be made destructive through reckless driving, the fact that they can be proven to be “roadworthy” before they leave the factory may do much to assist their reception once they reach the classroom.

The use of the term “fitness for purpose” is used deliberately. Those working in Strategic Course Analysis try to avoid the word “quality” as the concept is meaningless without comparative benchmarks. It is far better to seek the intent of the person who developed the subject and then determine whether the desired outcomes of that intent are likely to be achieved. This means examining the nature of the subject, the context in which it will be delivered, and the benefit it is expected to confer on staff and students. No subject is ever delivered in isolation, and for this reason it is equally important to assess its role in the curriculum, its relationship to subjects offered elsewhere, the resources required to mount the proposal, and the ultimate cost to the institution.

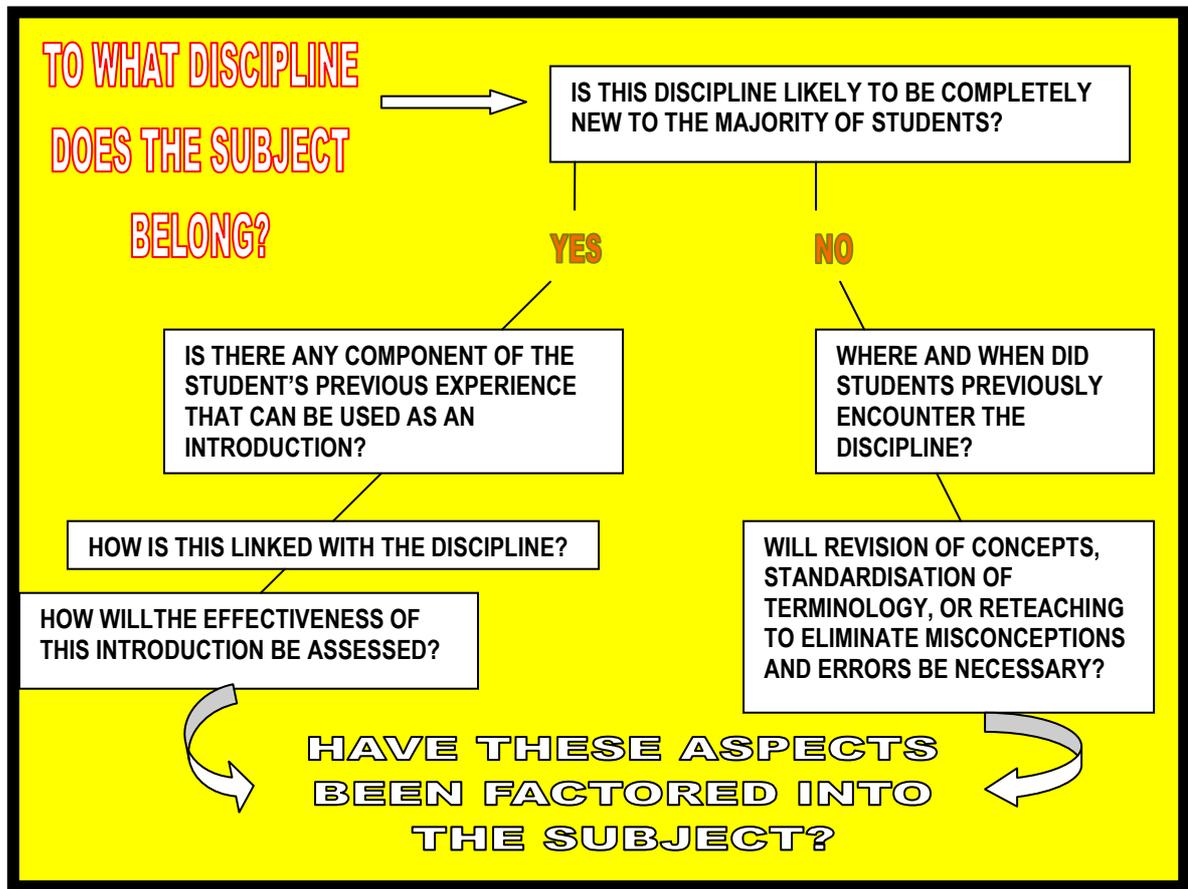
The assessment is divided into two parts – an investigation of the subject to determine the outcome intended by the developer, followed by its impact on the “environment”, to confirm whether the subject is in fact “fit for the purpose claimed”.

ASSESSING THE FITNESS OF HIGHER EDUCATION SUBJECTS – WHAT ONE LOOKS FOR

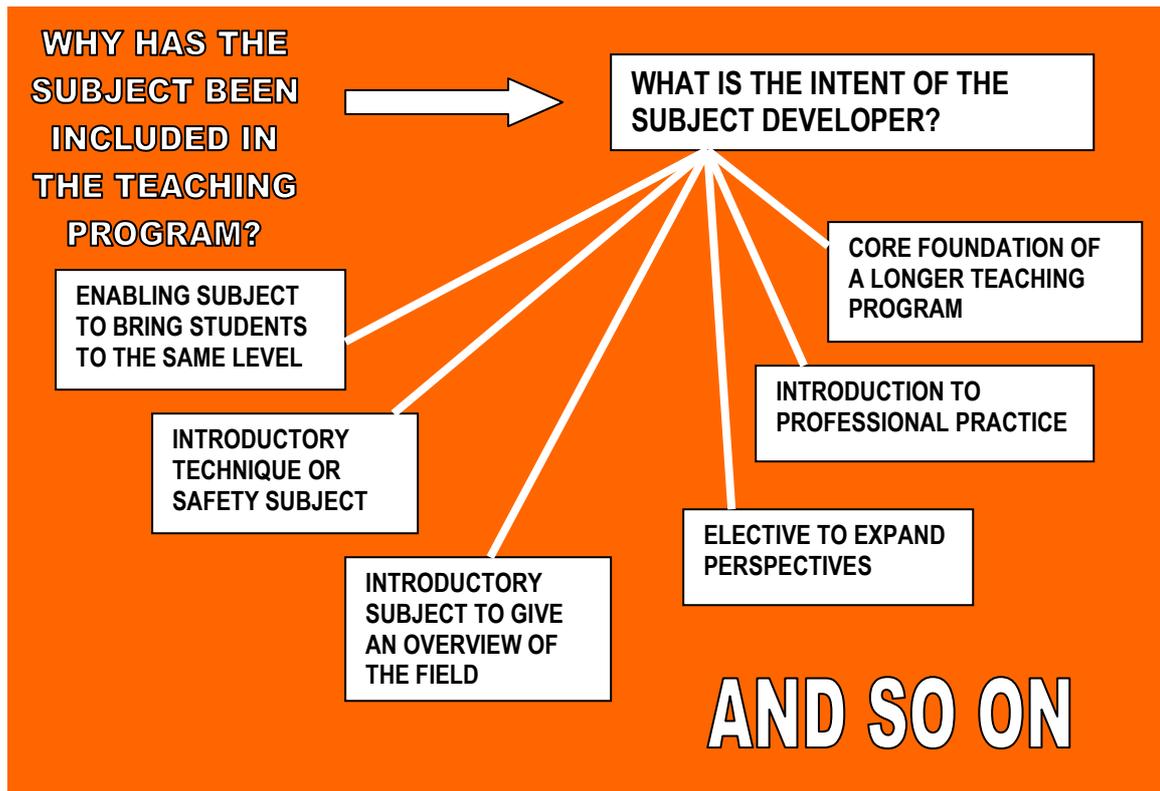


There is a set sequence in which this assessment is conducted. Normally the first thing to be determined is the discipline to which the subject belongs.

While this may seem a matter of relative insignificance, completion of this step gives assessors confidence in what they are doing and opens the door to reflection on the prior exposure to the discipline that students may have experienced.

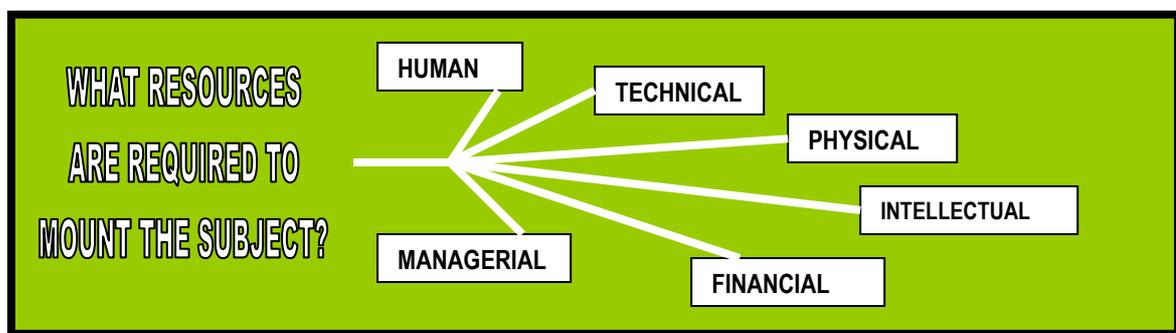


The second question concerns the intent behind developing the subject. There are a range of possibilities (i.e; it may be an enabling subject, a subject taught for OH&S purposes, a core foundation unit, a practical unit, an elective to expand the mental horizon of the student, and so on). The question must not be overlooked however, as unless one can determine the outcome intended from the subject – and hence its justification for inclusion in the curricula - it is extremely difficult to confirm its fitness for purpose.



It is important to note that no attempt is made at this stage to determine whether the subject will achieve any of these outcomes. All that is necessary is to identify the intent of the person who developed the subject, and what the subject is intended to contribute to a broader teaching program.

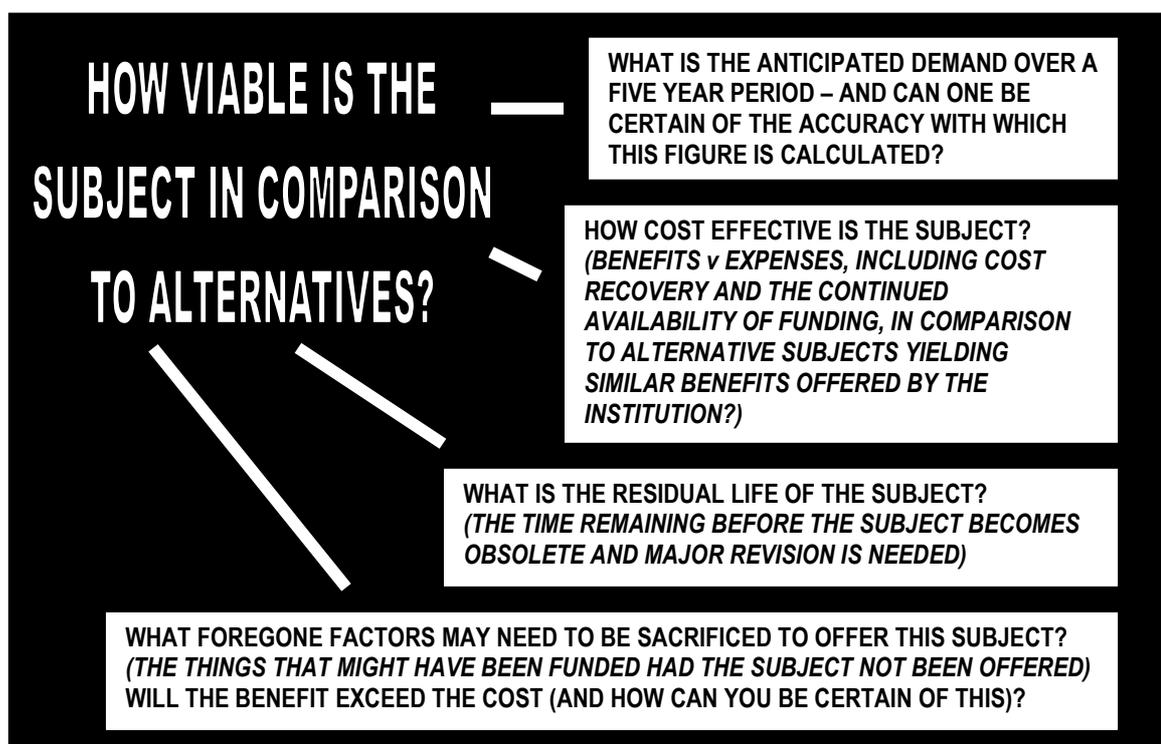
The question of resources is equally important. Nothing can be taught in the absence of resources, and few of these come cheaply. It is the task of the assessor to determine just what resources might be needed to mount the subject, and at a later stage, whether these resources are likely to be made available.



It is impossible in the harsh world of academia to provide every proposal with sufficient resources to make it viable, but without adequate support even the

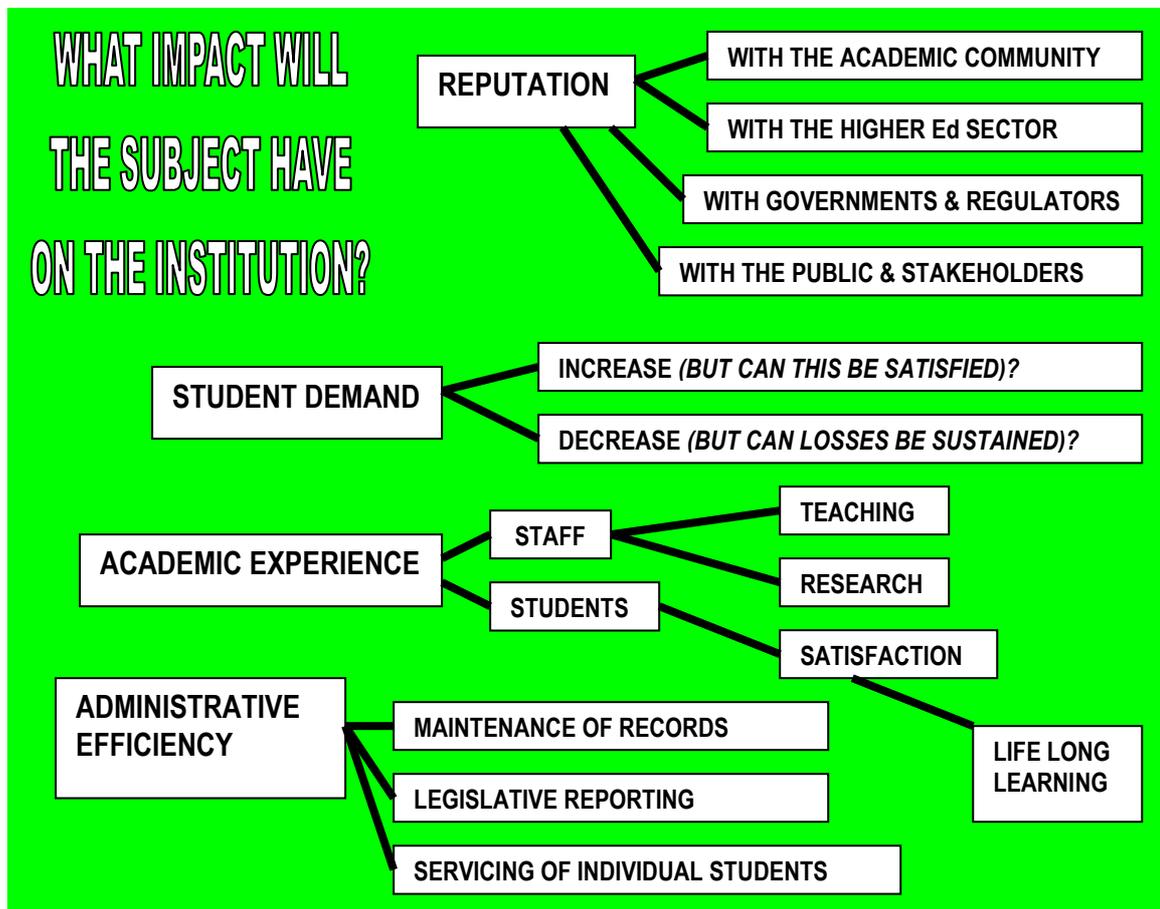
finest subject on pedagogical grounds cannot claim to be “fit for purpose”. New subjects invariably involve a transfer of resources from elsewhere, but before deciding whether it is appropriate to fund Peter by robbing Paul, it is necessary to ask two questions. The first is whether the subject is worthy to be funded in comparison to those from whom it will take resources. The second is whether this superiority is likely to continue until there has been an adequate return on investment.

Both questions require an analysis of projected demand, cost effectiveness, anticipated residual life (*the time remaining before major revision will be needed*) and the foregone factors (*the things that might have been funded had the subject not proceeded*) It seems unfortunate that a number of those who examine subjects from a purely educational perspective sometimes overlook this aspect, but it is essential for determining “fitness for purpose” – the “fitness” in this case reflecting the institution’s ability to mount and service the subject.



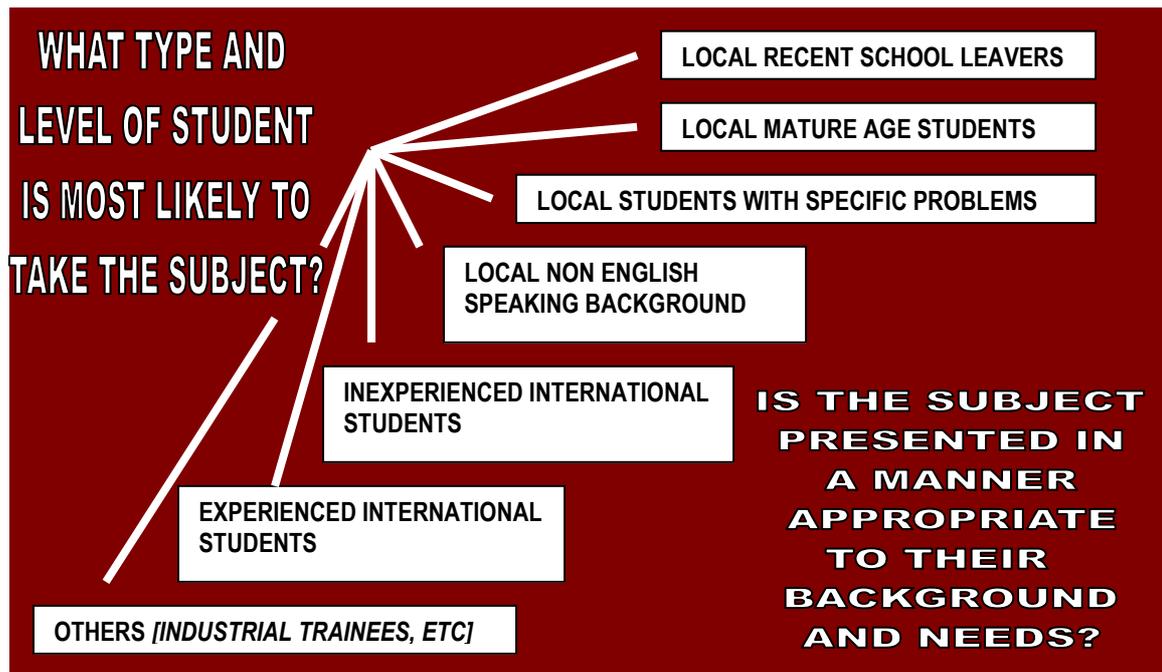
It is equally important in assessing fitness for purpose to determine the impact that the subject may have on the institution. This is generally considered under several headings, the most common of which are the impact on

reputation, the impact on student demand, and the impact on the experience of staff and students. Each of these can be subdivided further as shown in the diagram below. Unfortunately this is another aspect that is sometimes overlooked by those concentrating solely the content of subjects.

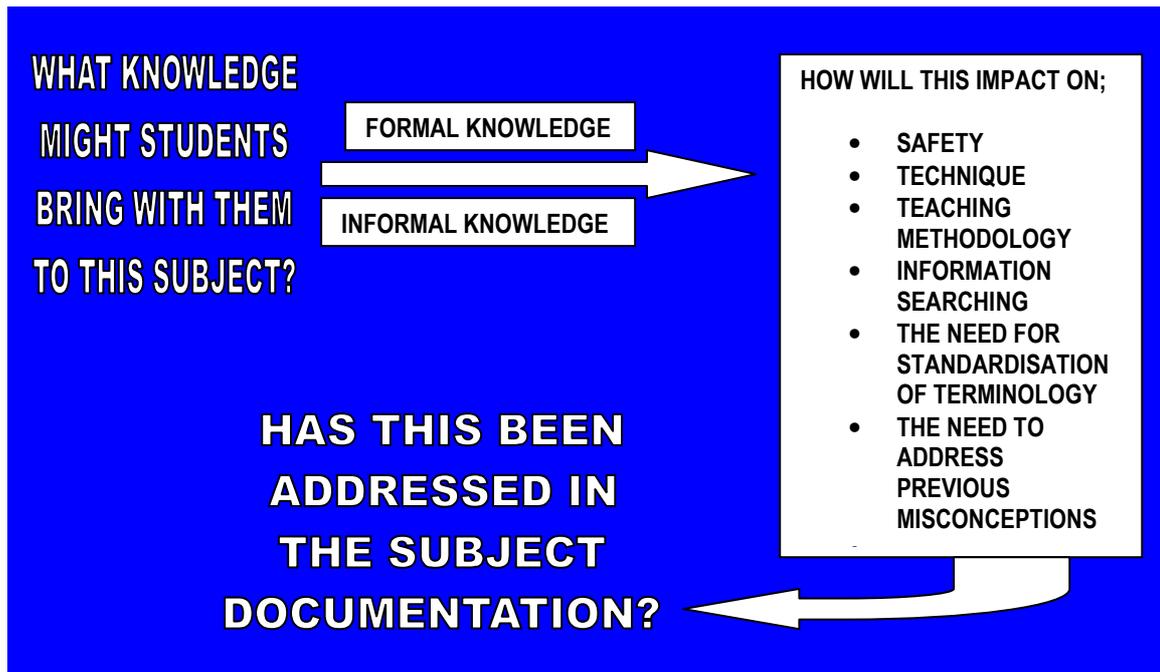


Up to this point investigation has focused almost entirely on the subject itself. It is perhaps time to consider the other side of the equation – the student who will take the subject in the classroom.

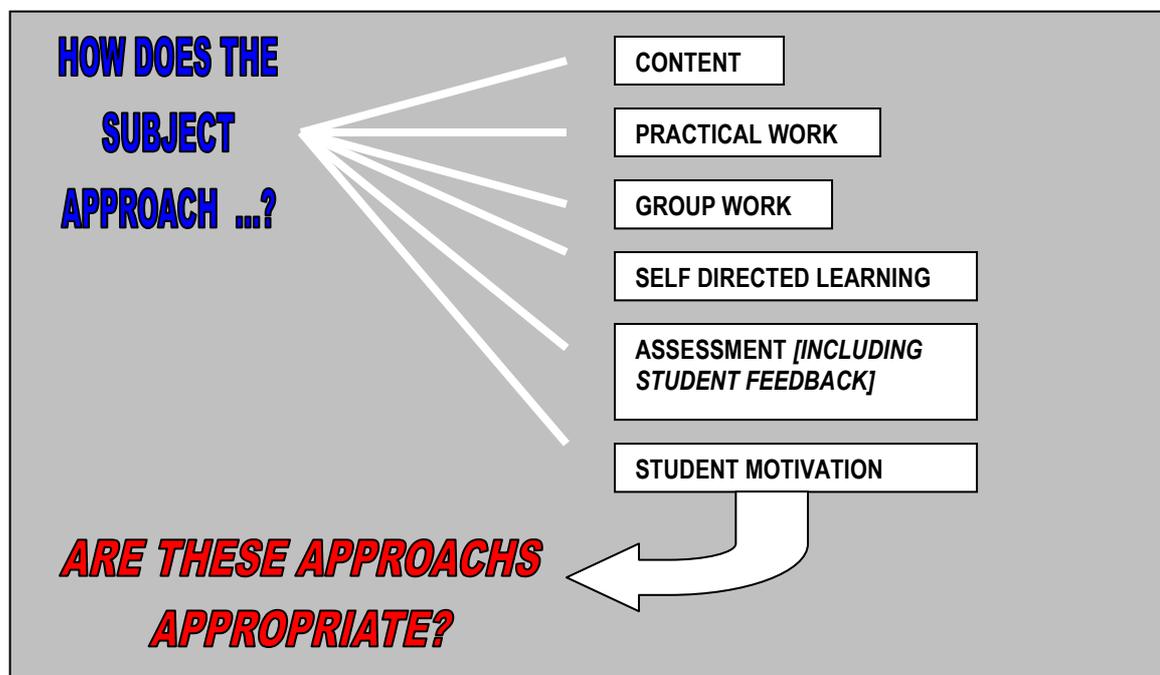
Students come from a range of backgrounds, and it is important to identify the type of student expected to take the subject, and having done this, whether the content, depth, pace and assessment is appropriate for their needs.



The corollary to this is the specific knowledge and skills that students may bring with them to the subject. *[Previously we talked about prior exposure to the **discipline**. This question relates to the experience that students may already have of the subject itself]* A different approach might be expected if it is believed that the majority of students have had previous contact with what will be taught, irrespective of whether this was gained through formal or independent learning, particularly in regard to safety, ethics, terminology, the consideration of others, and information searching. As in the case of prior exposure to the discipline, previous exposure to the subject may make it necessary to “erase and reteach” certain aspects of what might have been learnt before moving to the next level, and strategies to accomplish this should be factored into the subject.

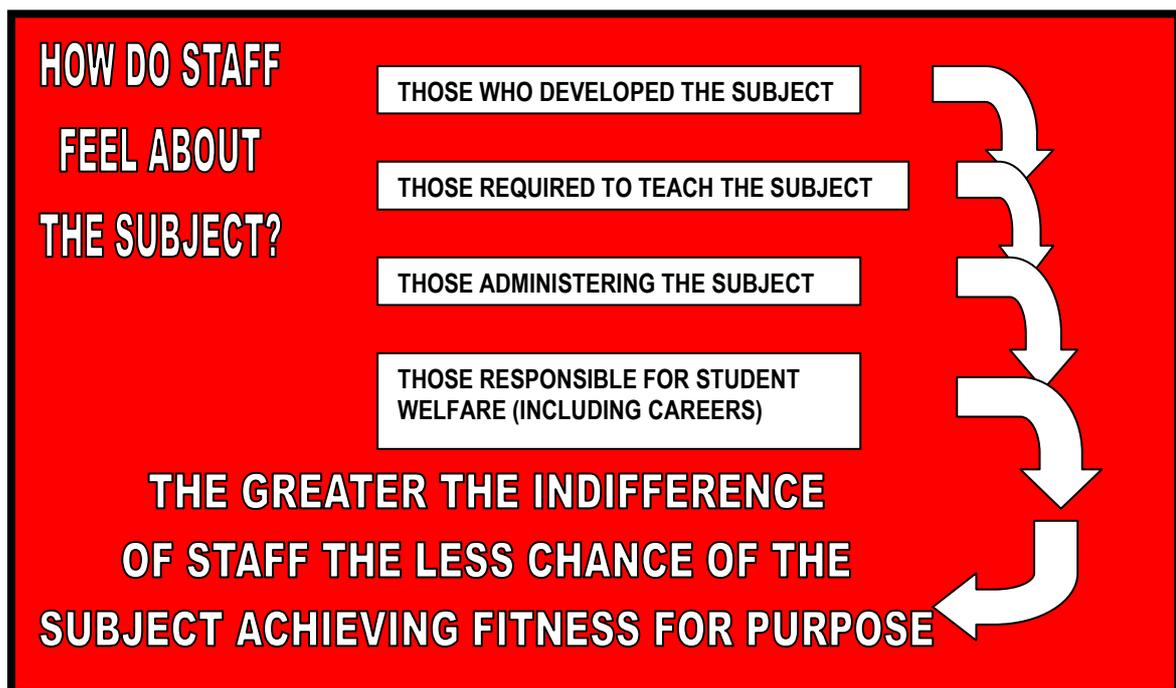


The handling of prior knowledge links in turn with the approach to other things, such as the academic content, practical work, group work, self directed learning, assessment of the student and the motivation that students might have to gain the utmost from the subject.



The final question is how the staff feel about the subject, as any subject that is not supported enthusiastically by staff is unlikely to achieve fitness for

purpose. This includes not simply those associated with the development or delivery of the proposal but even more those required to administer it or to provide counsel and guidance to students. While there is rarely time to question staff directly on this matter valuable insight can often be gained from the manner in which the subject is presented for approval. A cold, formal, conventional style – similar in substance to an academic dissertation - usually reflects indifference. Enthusiasm is generally in proportion to the effort made to “sell” the subject to outsiders and peers.

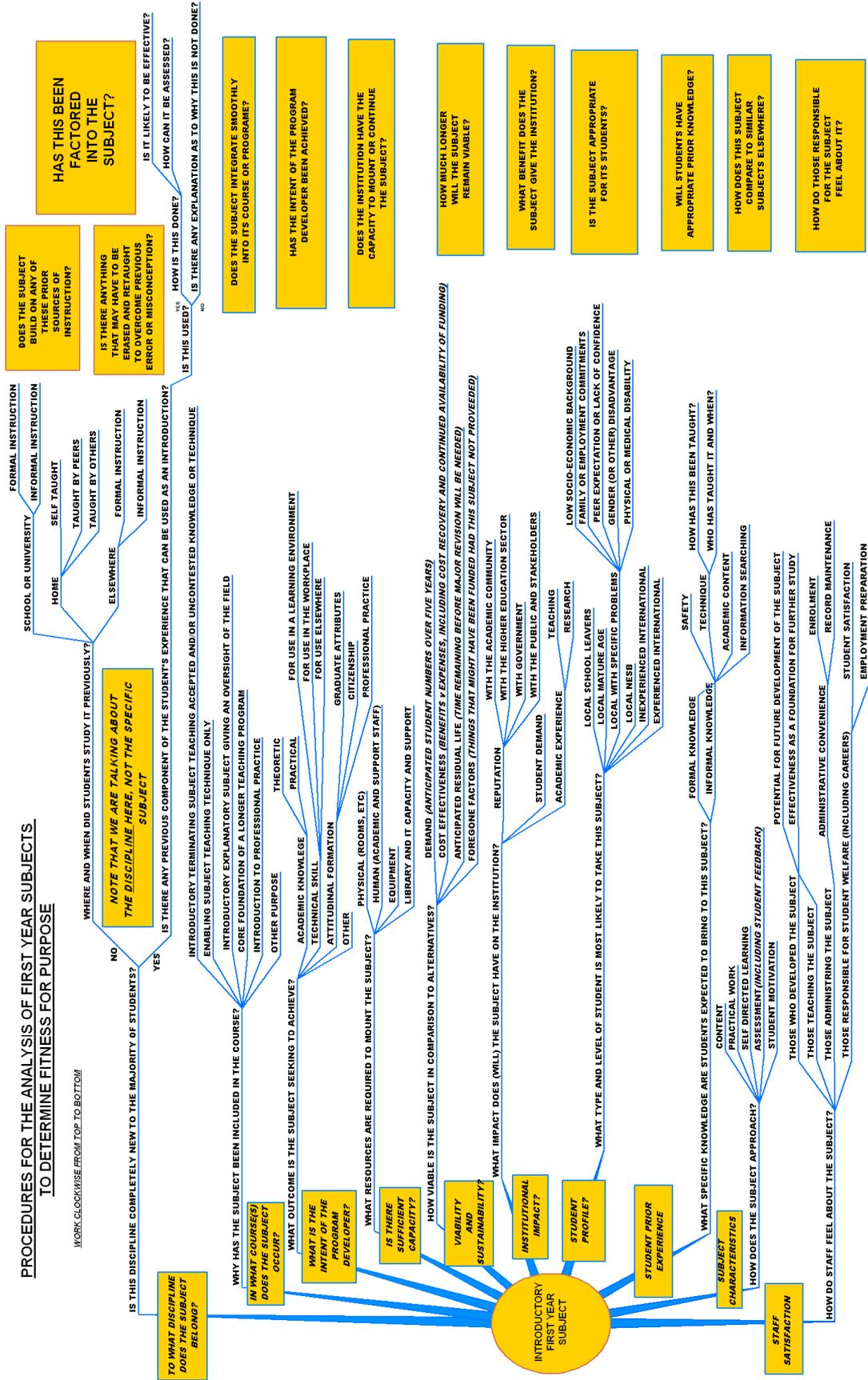


CONCLUSION

The assessment of subjects is similar in many respects to the judging of cattle and pigs – the more one does the better one becomes, not of improvement to the methodology but because one becomes more familiar with what one is looking for. It is hoped that those using these notes will try these procedures for themselves and report on the outcome to future forums.

PROCEDURES FOR THE ANALYSIS OF FIRST YEAR SUBJECTS TO DETERMINE FITNESS FOR PURPOSE

WORK CLOCKWISE FROM TOP TO BOTTOM



BIBLIOGRAPHY

CROMPTON, Phillip, 1996, *Evaluation: A Practical Guide to Methods*, Accessed 16 July 2012 from <http://www.icbl.hw.ac.uk/ltldi/implementing-it/eval.htm>

DAVIDSON, E. Jane., 2005, *Evaluation Methodology Basics*, SAGE: Thousand Oaks CA

DIAMOND, Robert M., 2002, *Curricula and Courses*, (Chapter 9 in Diamond, Robert M & ADAM Bronwyn (eds) *Field Guide to Academic Leadership*, Jossey Bass/Wiley: San Francisco)

FENWICK Tara J., & PARSONS Jim., 2009, *The Art of Evaluation: A Handbook for Educators and Trainers*. Thompson Educational Publishing: New York

JAMES, Richard., KRAUSE, Kerri., & JENNINGS, Claire, 2010, *The First Year Experience in Australian Universities: Findings from 1994 to 2009*, Centre for the Study of Higher Education, University of Melbourne: Melbourne VIC
Accessed 16th July 2012 from http://www.cshe.unimelb.edu.au/research/experience/docs/FYE_Report_1994_to_2009.pdf

KIFT S, 2005, *Articulating a Transition Pedagogy First Year Curriculum Principles: First Year Teacher making a difference.*

KRAUSE, Kerri-Lee., HARTLEY, Robyn., JAMES, Richard, & McINNIS, Craig., 2005. *The First Year Experience in Australian Universities: Findings from a Decade of National Studies*, (Final Report January 2005) Centre for the Study of Higher Education, University of Melbourne: Melbourne VIC
Accessed 16th July 2012 from http://www.griffith.edu.au/_data/assets/pdf_file/0006/37491/FYEReport05.pdf

OWEN, John M., & ROGERS, Patricia J, 1999, *Program Evaluation: Forms and Approaches*, SAGE: Thousand Oaks California

REEVES, Thomas C., & HEDBERG, John G., 2003, *Interactive Learning Systems Evaluation*, Educational Technology Publications

SMITH, Phil & MORRIS, Owen, 2011, *Effective Course Evaluation: The Future for Quality and Standards in Higher Education*. Communications Management Electric Paper
Accessed 16 July 2012 from http://www.electricpaper.biz/fileadmin/user_upload/10_documents_EN/Effective_Course_Evaluation_-_The_Future_for_Quality_and.pdf

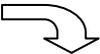
The Joint Committee on Standards for Educational Evaluation, 1994, *The Program Evaluation Standards*. SAGE Thousand Oaks, CA

THOMPSON, Maree Dinan, 2009, *Expanding staff repertoires of 'fit-for-purpose' assessment practices in first year Subjects*, James Cook University: TownsvilleQLD.
Accessed 16th July 2012 from http://www.fyhe.com.au/past_papers/papers09/content/pdf/11B.pdf

WILSON, K. and LIZZIO, A., 2009, *Success in First Year: enhancing the engagement of first year students*. James Cook University SDVC Seminar Series 2009.

APPENDIX TO THE PAPER

TEMPLATE FOR THE ANALYSIS OF FIRST YEAR SUBJECTS TO DETERMINE FITNESS FOR PURPOSE

| BASIC QUESTION | FURTHER ISSUES FOR ASSESSORS TO CONSIDER | DECISION <i>[To be completed by assessor]</i> | JUSTIFICATION FOR THIS DECISION |
|--|---|--|---------------------------------|
| <u>TO WHAT DISCIPLINE DOES THE SUBJECT BELONG?</u> |  | | |
| | IS THIS <u>DISCIPLINE</u> LIKELY TO BE COMPLETELY NEW TO THE MAJORITY OF STUDENTS? | | |
| | IF NOT, WHEN AND WHERE WOULD STUDENTS HAVE STUDIED IT PREVIOUSLY? | | |
| | IF SO, ARE THERE ANY RELATED COMPONENTS OF THE STUDENTS' EXPERIENCE THAT CAN BE USED AS AN INTRODUCTION, AND HAVE THESE BEEN FACTORED INTO THE SUBJECT? | | |
| <u>IN WHAT COURSE (OR COURSES) DOES THE SUBJECT OCCUR?</u> |  | | |
| | WHY HAS THE SUBJECT BEEN INCLUDED IN THIS COURSE (OR THESE COURSES)? | | |
| <u>WHAT IS THE IMPLIED INTENT OF THE SUBJECT DEVELOPER?</u> |  | | |
| | WHAT OUTCOME IS THE SUBJECT MOST LIKELY TO ACHIEVE? | | |
| | IS THIS THE MOST DESIRABLE OUTCOME? | | |
| <u>WHAT RESOURCES ARE REQUIRED TO MOUNT AND SUSTAIN THE SUBJECT?</u> |  | | |
| | ARE THESE | | |

| | | | |
|---|---|--|--|
| | RESOURCES DELIVERABLE OVER THE LIFE OF THE SUBJECT? | | |
| <u>HOW VIABLE IS THE SUBJECT IN COMPARISON TO ALTERNATIVES?</u> |  | | |
| | WHAT IS THE PROJECTED COST VERSES THE BENEFIT OF THE SUBJECT? | | |
| | WHAT IS THE ANTICIPATED DEMAND, AND IS THIS REALISTIC? | | |
| | WHAT IS THE PROJECTED LIFE OF THE SUBJECT? | | |
| | WHAT MAY HAVE TO BE FOREGONE TO MOUNT THIS SUBJECT, AND IS THIS LOSS WORTH IT? | | |
| <u>WHAT IMPACT WILL THE OFFER OF THE SUBJECT HAVE ON THE INSTITUTION?</u> |  | | |
| | INSTITUTIONAL REPUTATION | | |
| | STUDENT DEMAND | | |
| | THE LEARNING EXPERIENCE OF STAFF AND STUDENTS | | |
| | INSTITUTIONAL STRATEGIC PLANS | | |
| <u>WHAT TYPE AND LEVEL OF STUDENT IS MOST LIKELY TO TAKE THE SUBJECT?</u> |  | | |
| | HAVE THE NEEDS OF THESE STUDENTS BEEN FACTORED INTO THE SUBJECT? | | |
| <u>WHAT SPECIFIC</u> | | | |

| | | | |
|---|---|--|--|
| <u>KNOWLEDGE ARE STUDENTS EXPECTED TO BRING TO THIS SUBJECT?</u> |  | | |
| | IS THIS KNOWLEDGE REFLECTED IN THE CONTENT? | | |
| | WILL ANYTHING HAVE TO BE RETAUGHT TO OVERCOME ERROR OR MISCONCEPTION, OR TO PROVIDE STANDARDIZATION OF TECHNIQUE OR TERMINOLOGY? | | |
| <u>HOW DOES THE SUBJECT APPROACH;</u> |  | | |
| | <ul style="list-style-type: none"> • CONTENT • PRACTICAL WORK • GROUP WORK • SELF DIRECTED LEARNING • ASSESSMENT • STUDENT MOTIVATION • THE NEXT STAGE IN THE LEARNING PROCESS | | |
| <u>HOW DO STAFF FEEL ABOUT THE SUBJECT?</u> |  | | |
| | DEVELOPERS | | |
| | TEACHERS | | |
| | ADMINISTRATORS | | |
| | STUDENT WELFARE COUNSELLORS | | |

| | | | |
|--|---------------------|--|--|
| | (INCLUDING CAREERS) | | |
| | SENIOR MANAGEMENT | | |

IS THE SUBJECT FIT FOR THE PURPOSE CLAIMED?

IF NOT, HOW MIGHT IT BE IMPROVED?