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Students exposure to research methods in an undergraduate education
program

Barbara Mclean
Macquarie University

This paper reports on the nature and extent to which undergraduate
students in a School of Education are provided with opportunities to
learn about and to engage in research activities. The view of research
taken in this paper focuses specifically on approaches which involve
the collection and interpretation of data to explain or provide insight
into matters associated with the learner and the processes of teaching
and learning. Social policy research is not referred to. The content
and assessment of different units is described and results of an
opportunity survey relating to student use of research discussed.

It is hoped that the experiences reported will from the stimulus for
discussionabout ways and means of introducing students to educational
research.

The teaching of education has long been the subject of considerable
discussion as to what exactly constitutes a discipline of education.
Similarly there have been differing opinions as to what is the nature
of educational research, for example the status of qualitative

research. When it comes to determining a program of study in
education, issues arise as to the way in which educational research
should be included. These include questions about content, timing,
level of integration, and articulation. The matter is made more
complex when there is a great deal of flexibility in the program of
units that students follow

From the inception of Macquarie University , it has been possible to
study education as a major field of study within a Bachelors degree, in
the same way as one would study history or chemistry. The professional
units focussing on how to teach particular subjects with the associated
practicum are not part of this 'academic' study. All students wishing
to obtain a teaching qualification complete a 4 year concurrent diploma

of education with their degree, or since 1990, have the option of doing
and end-on Graduate Diploma of Education in a limited range of
secondary teaching subjects.. The requirements of the Diploma are 12
credit points in the academic study of education and 12 credit points
in professional studies.

One of the major differences between this program and others which
existed at the time of inception, was that history and philosophy of
education were not included in the unit offerings. The integrated
program was also intended to facilitate the development of a
'scholar-teacher' - rather than an educational technician. In the
early years, there was a strong emphasis on finding out about
education, on challenging the status quo, on trying to explain how
people learnt and what factors affected this. Many of the staff
themselves were studying for higher degrees. In such a climate, it is
not surprising that there was a lot of reference to enquiry and results
of research. Indeed, in the mid 1970's one of the first year units was
divided into modules focussing on different field of educational
inquiry. For example, one module examined the area of classroom
interaction through analysis of several research studies. Some of the
topics from which students could choose to write their assignment on
for this module were:

Hughes is both researcher and teacher for the classes in his study.
What reasons might have led Hughes to make this change: What
advantages and limitations does it imply for the findings? Consider
especially experimenter bias and controls for this.
or
In the Wright and Nuthall study, more standardisation is present;
prepared materials were provided, common content was set and uniform
achievement tests were given to all classes. Try to identify each of
the controls that were introduced. Why were they used?
or
The most plausible manner of measuring achievement is, perhaps, as
follows: measure each child at the beginning of the study on the

relevant test; measure each child again at the conclusion of the study; subtract the first score from the second score. Wright and Nuthall are well aware of this commonsense logic. Yet they didn't use this procedure. Instead they attempted to correct or adjust final scores in the light of individual differenced in such things as ability, knowledge or attitude. The 'residual', or scores remaining after the effects of these pupil variable were statistically eliminated, were used to measure achievement. Why might his complex strategy have been used? Are there any advantages and limitations flowing from its use?

Many students found this approach rather narrow and not very interesting - perhaps partly because they did not have a broad enough experience and knowledge of education on which to hang the ideas, and because they were too close to a notion of education as teaching, often seen more as transmission of subject matter. There was also the perennial problem of becoming bogged down with statistics.

That was 20 years ago. What of the situation now? To what extent do students get an exposure to educational research? What opportunities do they get to analyse educational research? What opportunities do they get to engage in educational research? For the purposes of this paper, I am restricting my comments to the units offered within the 'academic' stream of the study of education. although in some at least, of the professional units within the Teacher Education Program, students do engage in small scale action research projects and case studies relating to their teaching

There are currently two 100 level units which must be completed before taking up 200 level units. These units are one semester in length and may be taken in any order, or even concurrently although the majority of students would enrol in Foundation Studies in Education I and then follow with Foundation Studies II.   Foundation Studies I is concerned with learners and the factors that affect the learning process. Cognitivist and Behaviourist explanations of learning are covered, together with consideration of intrinsic factors affecting learning such as intelligence and self esteem, as well as external factors affecting learning such as different school practices. The two final lectures in the unit are given over to a consideration of research methods focussing on the research process, main types of research in education and some major issues.

One of the two assignments students complete also has a focus on research in that students are asked to engage in part of the process. They are asked to either interview two students of differing age on a given topic or to observe 2 students completing a given task. The information obtained must then be written up in a standard report form, giving an introduction to the issue being considered, describing the

method, summarising the results and interpreting them in a discussion
and conclusion section. References suggested are to more specialised
books. Students are not necessarily expected to go to other research
studies or journals for further information. In their tutorials and
handouts, they are given suggestions as to the required sections in a
report, but not specifically any advice about the way in which to write
the information i.e. style of report writing. For some students, it is
this, rather than the content, which causes them difficulties. Coming
from school, they have never been exposed to the sort of writing
expected and have no frame of reference.

For the actual lectures relating specifically to research, the
definition of research given by Mouly (1978) is taken as the starting
point -

"Research is best conceived as the process of arriving at dependable
solutions to problems though the planned and systematic collection,
analysis and interpretation of data. It is a most important tool for
advancing knowledge, for promoting progress, and for enabling man to
relate more effectively to his environment, to accomplish his purposes,
and to resolve his conflicts. "

There is a notable lack of gender inclusive language in this
description! Elements of the research process such as problem
formulation, literature review, research design, data collection, data
analysis and interpretation and dissemination of results are then
referred to and illustrated by reference to a research study.
Qualitative and quantitative research design are then gone into in more
detail, with exemplar studies of several approaches such as survey,
ethnographic and action research described. Correlation and cause and
effect designs are also illustrated before a discussion is entered into
as to the appropriate kinds of research for different kinds of
problems. The final issues raised in the lectures relate to validity,
reliability, test fairness, and ethical issues. On the surface, an
incredible amount of content is covered. The lectures are very
carefully prepared and clearly presented with examples of contemporary
Australian research. There is some coverage of the material in a
chapter of the textbook, but in the main, students need to copy down
the information from the lecture and the overheads. This often has a
restrictive effect on overall understanding at the time. The
information is also presented after the students have completed their

assignment which may have provided more context and relevance for the
ideas. Encouragement to review the topic comes from the existence of
an exam and students are provided with examples of questions that might
come up. One example related to research is the following:

You have decided to set up and perform a small scale educational
research project to determine how much time students in Year 7 spend

(a) doing their homework (total amount of time for all their subjects)
and (b) studying science. You have decided to perform this project
during 1994 and there will be four Year 7 classes with 25 students in
each class (total of 100 students). Describe the way you would set up
and perform this project. In your description, include the following
aspects:
a) What would be the initial steps you would be undertaking in Term IV,
1993 in terms of the research process?
b) What type of research design would you use? Discuss this briefly
in terms of: approach, sample, data collection methods and
instrumentation. (We are NOT., at this stage, looking at methods of
analysis).
c) What would be your hypothesis/hypotheses?
d) Discuss what validity and ethical issues would be associated with
your project.

As previously mentioned, the research methods lectures come at the end
of the unit and while it is possible to relate them back to other
research mentioned earlier, there is little opportunity to build upon
the material.. This is partly because there is no set sequence between
the 100 level units, and also because the other 100 unit takes a quite
different focus.

Foundation Studies in Education II aims to provide an introduction to
education as a social, historical and political process. It looks at
how Australian education has developed, educational inequality and
society, and issues associated with the curriculum. Its focus is on
ideas, on the sociology of knowledge and critical theory. This
approach is strongly reflected in the chosen textbook - Preston, N and
Symes, C (1992) Schools and classrooms: a cultural studies analysis
of education. Taking this approach, there is little call for reference
to the kind of research referred to in the other 100 level unit. The
200 level unit which builds upon Foundation Studies in Education II,
and which looks at the social construction of education policy, has a
similar focus on theory and analysis
.

At 200 level students who plan to continue their studies in education
must include one of two specified units in their program. These two
units are intended to build upon the first year units. Apart from the
unit already referred to above, the other specified unit is the one
which follows on most directly from Foundation studies in Education I
and has as its focus the cognitive and social -cognitive development of
children with particular reference to aspects of relevance to
educational practice such as memory, metacognition, development of
prosocial behaviour and notions of fair play and justice.

A textbook is used, and most additional references given are to general
books although reference is made to the fact that further information
is to be found in journals. For this year's first essay assignment of

1000 words, three topics were given, one of which was to choose two
recent research articles which investigate a similar problem or area
and to compare and contrast the two papers in terms of their underlying
theories and their impact on the methods used and the conclusions
reached. For all of the topics the general comment was given that

students were expected to examine research literature post 1988 and a
list of journals was suggested. The second assignment involved
interviewing two students from different grades to gain information
about children's conceptual understanding. The assignment was based on
a published study. The interview questions were constructed in
workshops, permission forms had to be signed, results of the interviews
were combined with those from other students, and a 2000 word report
had to be written. Students doing this unit thus had the chance to
become involved in aspects of planning and conducting research and
writing it up.

In addition to the core or specified units, there are a number of other
200 level units available to students. Three of these are required to
be completed by those students intending to reach at primary level for
the Department of School Education and are also taken by many other
students who are interested in the topic or because it suits their
timetable. Because for some of the students these units are a required
part of their education program, they will also be examined in terms of
the opportunities they offer for students to be exposed to education
research.

EDUC246 - An Introduction to Special Education is taken by almost all
students as part of the Department of School Education requirements for
employment. It can be taken in any of the second, third or fourth year
of a student's program. Several of the lecture topics and set reading
for this unit do focus on issues related to research eg approaches to
explanation, research on effective teaching, systematic monitoring,
research and development information on a project looking at transition
for students with disabilities. The essay topic specifically asks
students to evaluate the findings of research on a given topic, to look
at possible strategies and to support your argument with reference to
research. Specific starter references which all students are expected
to read are from journals or handbooks. These tend to be reviews of
research and the students are expected to identify the agreements and
disagreements and then to look up specific examples of research to try
to explain the differences In the guidelines for writing the essay,
students are told they should ideally use ERIC on CD-ROM to locate
recent literature in the area. Students tended to have difficulty in
synthesising and evaluating which required them to identify what was
important and make decisions about where the research was heading.
They had no difficulty in identifying issues, but basically
regurgitated what had been found. In other words, skills in critical
thinking were not being used. Again, this may relate to the time in

their university program that students take this unit, but it may also reflect on the fact that there is often no direct teaching of skills because it is assumed that students will pick things up. While this may have been the case for a larger percentage of students in the past, the broadening of university entrance makes this less of a likelihood.

One of the other components of this unit is working through a 'positive teaching' package. The techniques described in this package are justified by reference to research. It is not unusual for students to comment that other units have presented different viewpoints, and they demand to know which one is right. Once again, it would seem as if we have not been able to help students see the function of research and how to evaluate it.

Educ260 - Language, literacy and learning explores various schools of thought in the areas of the development of speech, reading and writing. In the readings and lectures much use is made of case studies and examples of children's reading and writing. The assignment tends to require students to collect and analyse samples of students' work in

the light of what they would expect from theory.

Educ258 - Mathematics in schools, begins with students being presented with the results of course surveys on beliefs about mathematics at the beginning and end of the unit. It is a stimulus to get them thinking though, and not discussed as a piece of research. There used to be an investigative project, usually an informal survey in groups of 4 with the results presented to the tutorial group, with a couple of sessions allowed for discussing planning the study and analysing the data, but it was dropped because it was too much work for staff and students. In the book of readings containing 25 articles, there were 3 articles which were reporting research, and 2 which were overviews of research

The largest 300 level unit was one which followed on from EDUC246 and looked at Education of Persons with Learning Problems. The focus of this unit is effective teaching particularly in the area of literacy and numeracy. There are two strands to the tutorial workshop component of this unit. One of these examines research articles and is introduced by a session on how to read research. The other explores different techniques for applied behaviour analysis, and includes a session on small n research design. The assignment this year consisted of a brief case history for which students then had to consider theory propose and justify reading intervention program. For most students this did not entail accessing research studies. The unit for which this is a prerequisite focuses on curriculum and policy relating to students with developmental disabilities, with 2 of the 4 topics for the major essay requiring students to evaluate a position statement and

identify directions for future research. Implicit in responding to such a question is the need to know what the research evidence is and how research can inform policy.

At 300 level there is a specific research methods unit which had an enrolment of only 14 students this year. The research methods unit looks at general concepts of research, and then presents four modules focussing on surveys, qualitative research, experiments, and N=1 designs. For their practical work, the students had to collect 20 responses to a prepared survey, pool and analyse the results. The survey was designed to have various problems, so there is plenty for the students to consider. For their practical work in the qualitative module , they were required to collect some in depth interview data and then for their assignment, towrtie up both this data and the survey data in the form of a journal article. While at the moment an introductory statistics unit is a prerequisite to this unit, there is the feeling that the students who respond best to the unit are those who have done other units which have looked at what research is, rather than focussing on numbers and statistical analysis.

A widely taken 300 level unit Education and social development, requires students to write a critical evaluation of one of the seminar references, the majority of which are research articles or reviews of research. Only 4 of the 16 articles are more general. It was intended that students review one of the research articles but this was not explicitly stated. The other assignment required students to design and conduct an interview with two people. The aims of the assignment were to provide the students with experience at using one of the major methods of social research, to encourage a critical approach to research and the difficulties involved, and to help students examine a content area in greater depth. A brief handout was given about the nature of interviews and interview construction. The importance of basing any research in a review of the existing literature is

emphasised, and time is given in tutorials for discussing pilot questions and structuring the interview. In workshops, students were also responsible in small groups for introducing given topics based on an extensive reading list. Students were expected to go beyond summarising references in a tutorial paper, to present theory and research in a way that members of the tutorial could understand the issues. In future this unit will have the relevant 200 level unit as a specified prerequisite, which will mean greater opportunity to build upon existing information and experiences.

Another 300 level unit which focuses on applied research is EDUC343 Research in Reading and Writing which uses a textbook and a book of readings, most of which are from journals. In the tutorial, students work through each of the readings, with the tutor taking responsibility for taking them through the statistics section, but they are meant to

be able to have prepared and discussed the other sections of the article. Students are given a grade for their participation, which has drawn some comments about the more vocal students being advantaged.

For the assignment in another 300 level unit from which responses to a questionnaire on research were collected and reported below, students were asked to identify key principles of a particular approach to language teaching and to evaluate the theoretical and research basis for these. Reference was made to particular journals which might be useful but other than that students were left to their own devices. Their general lack of reference to research evidence to illustrate the kind of data from which generalisations and theory might come made me question the extent to which they had understood the requirements of the question, and sure enough, when talking with them, it came out that many of them had thought research simply meant looking up books.

A different form of assignment was set for the 300 level unit looking at information technology in education. Here the students were given an investigative task. They were required to review and evaluate the use of information technology at a particular site of their choosing, having previously determined any relevant background information by using CD-ROM

Other 300 level units deal with International education, Philosophy of education, gender and education, Aboriginal education - issues and approaches none of which focus on research in the sense being utilised in this paper, or included a compulsory assignment which required students to access research. In the case of Aboriginal Education, opportunities for students to engage in research activities are limited by the need to be sensitive to a community that already feels itself to be overstudied or observed almost voyeuristically. This access to data is an issue in much education research with schools in particular, restricting opportunities to students. However, it can be said in the main, that for these units, it was possible for students to bypass research, except perhaps for citing material referred to in more general books.

As well as looking at what students were exposed to in the different units, I took two opportunity samples towards the end of second semester, 1994 asking students about their understanding and use of research. This was a limited questionnaire intended to be filled in during tutorials and to take about 10 minutes to complete. One second year unit and one third year unit were surveyed. It was a bad week for the second year unit with only 64 of the 90 students in attendance and 41 of 50 in the third year unit.

As usual, on analysing responses, it became clear that the questions

were not as brilliant as first thought. Students in their inimitable

fashion did not read my mind in the same way as I did!

The first question If you are given an assignment which asks you to refer to research in your answer, what does this require you to do? was intended to find out what students understood by 'research' - what exactly it was they had to look up or refer to. A large proportion of the responses seemed to take the view that research meant 'to find out' in the sense of 'to research a topic'. I queried this with one group of students afterwards and they reinforced that this was what they really did understand by the question.

Thus, the most common single response focussed on going to the library and looking for books and journal articles. Slightly more focussed responses simply specified looking for journal articles or relevant studies, or implied the doing of this through specifying searching ERIC or other databases, while others referred to looking for research articles, including one which used as a strategy searching for work of particular researchers and another which recognised the importance of theorists. See Table 1

Table 1

Second year unit N=64
Third year unit N=41
Total N=105

general library search
34% (22)
22%(9)
30%(31)

journals
22%(14)
24%(10)
23%(24)

research articles
23%(15)
22%(9)
23%(24)

total general
80%(51)
68%(28)
75%(79)

A single response, not included in the tabulation, identified research as being 'studies experimenters have done on people'.

The other responses to this question focussed more on what one did with
the material read. The emphasis was on incorporating others results
into your own work to using the research to substantiate your
arguments. One fairly detailed response said:
This requires you to sometimes evaluate research, or to relate the
findings of research to the issues being discussed in the assignment or
linking the ideas making inferences. Involves attempts to use research
material/findings as a back up to other information in relation to the
topic.
Two students simply said 'read and analyse' while another 2 thought it
required them to carry out their own investigation.   See Table 1b

Table 1b

Second year unit N=64
Third year unit N=41
Total N=105

support argument
11%(7)
32%(13)
19%(20)

read and analyse
3%(2)

2%(2)

carry out own study
3%(2)

2%(2)

nil response
1.5%(1)

1%(1)

Perhaps one of the most striking things which seemed to come through
the responses was that the word 'research' did not have a common set of
meanings. In particular, it did not seem to have the clear referent of
research investigations, whether they be of a qualitative or
quantitative nature. This finding alone would suggest a source of some
of the difficulties students have with writing assignments and doing
what the person who set the assignment was expecting, as well as

perhaps appreciating the link between such investigations and the state
of our 'theory'.

The second question simply asked whether for any education assignment
this year, the student had used ERIC or any other index. The
information from the third year unit is presented in two sections
because on the first presentation of the questionnaire reference was
made to ERIC only. It is possible that some of the students who said
they had not used ERIC had used some other index. See Table 2

Table 2

used index
did not use index.

Second year unit N=64
66%(42)
34%(22)

Third year unit N=12
75%(9)
25%(3)

Third year unit -Eric only N=29

72%(21)
28%(8)

In asking for this information, no attempt was made to ascertain how
many education units the student had been taking during the year. It
was realised that it would be very difficult to collect the information
relating to each unit and to analyse it. A small number of students
did specify the unit for which they had used an index, implying they
did not necessarily need to use it for all units. Two students at 300
level also commented that they had not used ERIC this year, implying
they had used it in the past.

To place a value judgement on whether an average of 73% of the third
year sample and 66% of the second year sample had used indexes is
awkward because as inferred from above, it is not clear that such
reference was always needed. However for the third year unit, the
major essay question did ask students to refer to research in their
answer and for the second year unit,......Failure to utilise indexes
would seem to limit access to information.

The third question asked Approximately how many research articles have
you read for your education units this year? How many of these were

given to you as handouts. Interpreting the responses to this question
is again made difficult because of not knowing how students were
interpreting the word 'research'. how many and which education units
the students were doing, and because there could be a problem with the
word handout. The intention was to separate out the research articles
which might have been provided for the students through books of unit
readings as distinct from ones the students sought out for themselves.
However, because of the difficulties mentioned above, no tabulation of
the responses was considered worthwhile. It might be worth commenting
though that the majority of the responses fell within the range 10-20
articles read, and for many this included articles in book of readings

Question 4 asked students - When you read a piece of research, what do
you need to take into account when evaluating the importance of the
finding. In responding to this question, students could write a number
of points. Nearly all students included at least two factors which
would need to be taken into account. The most common groupings
included the date of the research, the size and nature of the sample,
and the country of origin. See Table 3

Table 3

Factors
200 level
300 level

Method
16
12

Conditions/variables
8
6

Sample
18
13

Country of origin

10
3

Year of publication
16
12

Researcher
6

6

Bias
6
5

Some of the comments in relation to sample indicated that variables
such as SES and gender and ethnicity were also being thought of, as
well as sample size. These were sometimes separately identified as
conditions which would affect generalizability. The students who
mentioned the researcher seemed to be thinking either of the reputation
of the individual or recognition of a particular theoretical stance
from which the research was coming. This latter idea could also have
been incorporated in the notion of bias, but this was not made
explicit. One 300 level student's response identifying whether the
information was fact or opinion was included in this category. Indeed,
quite a few of these responses seemed to be from students who were not
focussing on individual pieces of research. For example, one 300 level
response was:

The bias of the person writing it, need to find a lot of other research
done that might contradict this. Need to look at how much research was
done - was it broad, take in a lot of opinions, theories etc.

The remaining responses focussed more on how the research would be
used. Thus 10 students overall mentioned the need to compare with
other research, and 10 specified that they would look at the results,
conclusions and implications of the research. A further 200 responses
at 200 level and 7 at 300 level focussed on the relevance of the
material to the question they as students were having to answer. Many
of these responses were from students who had taken the view that
research was looking up information on the topic. One 300 level
student wrote that this was an area in which she had problems, that she
didn't feel she knew how to evaluate a piece of research. The limited
and fairly simplistic responses of many of the other students would
suggest that this was a much wider problem.

Question 5 asked students for what purposes they would use quantitative
and qualitative research. The aim here was not to simply ask the
difference between them but to see if they could identify the different
kinds of research questions which would require the different kinds of
approaches. The responses were uniformly poor. Twenty percent of the
300 level students and 36% of the 200 level students said they didn't
know. However of those who responded there was hardly a single one
that gave confidence that the student understood the different
approaches. Some sample responses will illustrate this statement.

Quantitative research is for investigating numerical data, gathering
statistics, averages. Qualitative data is dealing with effect eg

research on levels of self esteem.

When simple factor is involved -quantity

When multiple factors are involved - quality.

Quantitative research - to back up ideas
Qualitative research - to help give you ideas.

Quantitative for actual numbers
Qualitative for comparison and depth of study.

Quantitative research - where long term effects are not being
studied. Development or changes are not important or big. Qualitative
research - study long term effects of something. Individual
differences are great - too many variables - details are important.

Qualitative - to find information, clarification, meaning, substance
Quantitative - to find statistics - to back up findings

The most common response related to quantitative research was that it
had something to do with numbers (c29%), with other comments including
things such as ' to test for accuracy' or to 'prove and disprove
points' and 'to establish trends'. There was less consistency with
qualitative research, perhaps the largest number of responses grouping
around ideas of depth, discussion , quality, evaluation (c20%). In the
context of the students' other responses though, many of these comments
seemed to relate to a general discussion of a concept rather than the
nature of the enquiry.

The last two questions dealt with reasons for not reading research and
difficulties they might have in reading such material. For some of the
300 level students only the question about reasons for not reading
research articles, whereas for the remainder and all of the 200 level
students an additional question asking what if any particular problems
the students had in reading or using research. Seventy five percent of
the 200 level and 66% of the 300 level students did not respond to the
question asking reasons for not reading much in the way of research, if
that were the case. For some of these responses it could have been a
case of not answering all of the questions, but most indicated it was
not applicable, presumably on the basis that they thought they had read
sufficiently. Of those who made a comment, the majority focussed on
time (13 responses) while other responses of three or less included
problems with jargon, finding the material, cost of photocopying, and
statistics. One interesting comment was that with the word limits on
assignments, it was impossible to include the information, therefore it
wasn't worth the effort.

In referring to any problems in reading or using research, the majority

of comments related to jargon and style of writing, tedious, boring,
time consuming and long(41 comments).. Related to this were comments
about articles only being tangential to the students quest or
difficulties in getting to the main point, comprehension when many
concepts were unfamiliar, and assimilating data. There were also 12
comments about not understanding statistics. Other comments about
difficulties in using the research were keeping track of the findings
of different people, assessing the status of the researcher, and
incorporating results without seeming to just rehash what had been said
in the article. A few students also referred to difficulty in finding
recent articles (which included reference to the library system as well
as availability). Perhaps it can all be summed up by the comment "They
are all SO long, and I don't know how to find ones which will be
useful."

As mentioned at the beginning of this paper, the sample of students for
the above analysis was an opportunity sample and one cannot generalise

from the results. There were also problems with the interpretation of
the questions. However there is enough information to suggest that the
students have rather hazy ideas about what constitutes research. They
are not necessarily motivated to use it, for several reasons in
particular - difficulty of finding and accessing and then the length
and style of writing. Researchers seem to be caught between two stools
- that of providing sufficient detail for others to evaluate the
research and for replication, while not getting bogged down in so much
detail that readers lose interest. It would further seem that
lecturers and tutors may need to more explicitly discuss and provide
practice in how to skim through and to assess whether the findings are
worth reporting as evidence to support a particular position and to
model how students can use research effectively. Just heading students
in the direction of the library is clearly not good enough.

In terms of presenting knowledge about research and developing and
understanding and appreciation of the role of research, there is need
for more awareness of what is being done in different units, and a more
clearly defined set of knowledge or skills which could be addressed - a
clearer focus on what we want to achieve.. When bits and pieces are
covered in different units, this is hard to monitor. Maybe there is
need for a research methods unit to be more widely taken, or for
elements of such a unit to become an integral part of the core units in
first and second year. The dilemma here is students' lack of broad
knowledge and critical skills which need to be drawn upon to perhaps
fully appreciate and evaluate the more narrow focus of much of the
research.

This paper has attempted to describe the situation which prevailed at a
particular point in time in one School of Education. Changes are
already in place relating to the structuring and articulation of

various units which will go some way to addressing some of the issues
raised. There is still need though for a careful thinking through of
what the needs of our students are for understanding research, and how
best we can provide them with the required understanding and skills.
This is the challenge.