THE RELATIONSHIP BETWEEN STUDENTS' APPROACHES TO LEARNING
AND THEIR PERCEPTIONS OF WHAT HELPS AND HINDERS THEIR
LEARNING

John A Clarke
For any correspondence associated with this paper, please contact Associate Professor John A Clarke, School of Learning and Development, Kelvin Grove Campus, Queensland University of Technology, Locked Bag No 2, Red Hill, Australia Q4059 and Barry C Dart
School of Learning and Development
Kelvin Grove Campus
Queensland University of Technology

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John A Clarke & Barry C Dart

ABSTRACT

This multi-method paper examines the relationship between tertiary students' self-reported surface and deep approaches to learning and their perceptions of those classroom-based activities and lecturer behaviours that they claim help or hinder their learning. 987 students from 10 Schools in 5 Faculties at the Queensland University of Technology (QUT) in Brisbane Australia completed the Study Process Questionnaire (SPQ), a 42 item forced-choice Likert scale inventory that can be used to classify respondents as having a predominantly surface or deep approach to learning, and the Perceptions of Learning Environments Questionnaire (PLEQ), a semistructured but open-ended questionnaire designed to gather students' views about what helps or hinders their learning and why. Two dominantly Surface Approach (SA) groups and two dominantly Deep Approach (DA) groups were identified and their perceptions compared. The SA groups were substantially similar while the DA groups, although having many common perceptions, differed on the degree of structure and autonomy they perceived as influencing their learning. The findings are related to existing theoretical conjecture and research and their implications first, for the consideration of "approach to learning" as a complex multidimensional construct and second, for tertiary teaching and the construction of learning environments which facilitate the development of meaningful approaches to learning by students, are discussed.

Approaches to Learning and the Learning Context

The concept "Approaches to Learning" has been identified as "...one of the most influential... to have emerged from research into teaching and learning in higher education during the last 15 years" (Ramsden, 1992, p. 39). Of the variety of conceptualisations of approaches to learning in the literature, the one that emerges consistently from a range of disparate methodological procedures and different cultures is the classification of surface, deep and achieving (Biggs, 1987; Entwistle & Ramsden, 1983; Marton & Säljö, 1984). The deep approach is indicated by an intention to understand the material to be learnt, together with strategies such as reading widely, using a variety of resources, discussion, relating the unfamiliar to the familiar, reflection etc. The surface approach is characterised by an intention to reproduce material to be learnt and avoid failure through focussing on specific details and using
rote learning strategies. The achieving approach is exemplified by an intention to excel using highly organised learning processes. The deep and surface approaches are the focus in this study.

It has long been accepted that how students perceive their learning environments has a significant influence on the quality of their learning outcomes (e.g. Doyle, 1977; Fraser, 1989; Ramsden, 1992; Waxman, 1991; Winne & Marx, 1977, 1982). Although this idea has its genesis in the theoretical and conceptual work of Lewin (1935, 1936), Murray (1938) and their followers (e.g. Brunswick, 1955, 1956; Pace & Stern, 1958), its current vindication lies in the student cognition paradigms of Knight & Waxman (1991) and Wittrock (1986) and in the extensive research activity on student perceptions of their learning environments at all levels of education reviewed for example in Brown & Atkins (1988), Fraser (1989, 1991, in press), Fraser & Walberg (1991), Marsh (1987), Ramsden (1992) & Waxman (1991). These reviews summarise this extensive literature which has had the ultimate aim of providing information that might be used to improve the quality of student learning and directly or indirectly, to improve the quality of teaching.

Both the students' personal intention with regard to learning and the context of learning have been shown to be influential in the students' adoption of surface or deep approaches to learning. For example, see recent reviews, theory and research in Dart (1994, in press), Dart & Clarke (1991, 1992), Clarke & Dart (1991, 1993) and Ramsden (1992). Students may well have a preferred orientation towards, or an intention to use, a deep or surface approach to learning but it is the learning environment, or more strictly how that learning environment is perceived, that will arouse or inhibit that approach. Ramsden (1992) contends that the deep and surface approaches that students use, or claim to use, "...are responses to the educational environments in which they... learn; expect of them" (p. 62).

Practices that encourage surface and deep approaches to learning have been documented by various writers, mainly derived by sound logical conjecture from the theoretical premises of what constitutes surface and deep approaches (Biggs, 1989, 1990; Marton, Hounsell & Entwistle, 1984; Ramsden, 1985, 1987).
Ramsden (1992) summarises these practices thus:

Surface approaches are encouraged by:

- Assessment methods emphasising recall or the application of trivial procedural knowledge
- Assessment methods that create anxiety
- Cynical or conflicting messages about rewards
- An excessive amount of material in the curriculum
- Poor or absent feedback on progress
- Lack of independence in studying
- Lack of interest in and background knowledge of the subject matter
- Previous experience of educational settings that encourage these approaches

Deep approaches are encouraged by:

- Teaching and assessment methods that foster active and long-term engagement with learning tasks
- Stimulating and considerate teaching, especially teaching which demonstrates the lecturer's personal commitment to the subject matter and stresses its meaning and relevance to students
- Clearly stated academic expectations
- Opportunities to exercise responsible choice in the method and content of study
- Interest in and background knowledge of the subject matter
- Previous experiences of educational settings that encourage these approaches (p. 81)

Some researchers have established empirical links between approaches to learning and some of these aspects of the learning environment. Watkins (1984), in a qualitative study, found that a deep approach to learning was associated with an adequate workload, allowing students time to think, assessing by essays rather than exams, actively encouraging freedom in learning and arousing interest. Dart & Clarke (1992), using a quantitative paradigm, have shown that a learning environment high in "constructive cognitive press" (Clarke & Dart, 1991) - one that promotes cognitive and metacognitive behaviour in students - increases the probability that students will use deep strategies in their learning. Similarly, Blumenfeld, Puro & Mergendoller (1992) identified as a major determinant of the use by students of self-regulatory and higher cognitive and metacognitive learning strategies, the existence of what they called a "press for understanding". Dart (in press) has found that students who endorse a mastery goal orientation are more likely to use strategies associated with a deep approach such as personalising material to generate meaningful understanding,
planning, monitoring and evaluating learning (metacognitive strategies), organising their learning and working with colleagues to facilitate learning. On the other hand, students who endorse a performance goal orientation, although they are likely to use metacognitive learning strategies and organised learning strategies, are unlikely to search for personal meaning and understanding in their learning.

This study has the aim of adding to the empirical support for the contentions summarised by Ramsden above by examining the perceptions of the learning environment of groups of tertiary students who claim to use a dominantly surface or deep approach to learning. This study extends the previous research in at least three ways:

- student perceptions of the learning environment are gathered using a qualitative methodology as opposed to the more commonly used Likert-scale instruments such as CUCEI (Fraser & Tregaust, 1987), CHPQ (Stevenson, 1990), ILSU (Dart, in press) and the SEEQ (Marsh, 1981);
- the study focuses on those events in the learning environment that students feel help or hinder their learning; and
- an attempt is made to establish why these events seem to help or hinder learning.

Methodology

Sample

1249 students and 21 lecturers from 10 Schools in 5 Faculties at the Queensland University of Technology (QUT) in Brisbane Australia were involved in the Teaching and Learning in Tertiary Education (T&LiTE) Project during 1992 and 1993. That Project had as its major aim, the gathering of information from students and their lecturers about learning and teaching in their classrooms and the collaborative use of that information by lecturers and members of the Project team to inform possible changes in lecturers' behaviour aimed at improving student learning. Further details the Project are available in Clarke (1994a), Clarke & Taylor (1993) and T&LiTE (1994).

A sample of 987 for whom complete data relevant to this study
were available were used in this study. In this sample, 607 (61.5%) were female and 336 (34.0%) were male while 44 (4.5%) did not indicate gender. The average age of the sample was 23.6 years.

Data Collection and Analysis Procedures

The T&LiTE Project data were collected by two experienced Research Assistants in August and September 1992 using standardised administration procedures. As this was at least 4 weeks into the teaching semester, the perceptions of the students about their learning environments was able to be regarded with some confidence as having had an sufficient time to stabilise. Of the complete questionnaire battery used in the T&LiTE Project, the two procedures used in this study were the Study Process Questionnaire (SPQ) (Biggs, 1987) and the Perceptions of Learning Environments Questionnaire (PLEQ) (Clarke, 1994b).

Study Process Questionnaire (SPQ)

The Study Process Questionnaire (SPQ) (Biggs, 1987) is a 42 item questionnaire with six subscales. Three of the subscales measure students' motives for studying (Surface, Deep, Achieving), and three measure the learning strategies adopted by students (Surface, Deep, Achieving). The corresponding subscales for motive and strategy can be combined to produce a score representing a Surface Approach, Deep Approach, Achieving Approach, Surface Achieving Approach and a Deep Achieving Approach. The response format is a 5 point Likert scale ranging from 1 "this item is never or only rarely true of me" to 5 "this item is always or almost always true of me". The SPQ has been extensively used in research on learning at the tertiary level and there is substantial validity and reliability data available (Biggs, 1987).

Perceptions of Learning Environments Questionnaire (PLEQ)

The Perceptions of Learning Environments Questionnaire (PLEQ) uses a semistructured but openended format to gather student perceptions concerning how they feel about activities and behaviours they experience in different learning environments along with the reasons why they feel the way they do. The semi-structured openended approach allows students to choose not only a particular learning environment for each response but also allows them to write about only those activities and behaviours
important to them.

The particular format of the PLEQ used here focuses on the "events that help/hinder learning" dimensions. It has also been used with "events students like/dislike" dimensions (See Clarke, 1994b, 1994c, 1994d). Figure 1 shows the "help learning" format along with a sample response.

Figure 1 somewhere here

The format for the "hinder learning" option is similar. The introductory paragraph is the same and the "EVENTS" section is modified appropriately as follows:

EVENTS THAT HINDERED YOUR LEARNING

For the subject you are now in, think about the behaviours and activities of lecturers and students which you felt have hindered your learning. In your own words, please describe these behaviours and activities and also indicate why they hindered your learning. Give as many examples as you can from the different learning environments listed above.

For each dimension, the students are supplied with 10 blank proformas of the type shown in the sample response, with the option of more if required. The list of learning environments is repeated at the top of every second page for convenience.

The comments - "statements" and associated "reasons" - of 100 randomly selected students were collaboratively categorised by the first/second author and the two Research Assistants producing 55 categories of "statements" and 47 categories of "reasons". These categories were used by the Research Assistants to classify the comments of the remaining students with random "quality control" checks made by the writer. Fortuitously, the categories almost always had positive and negative poles e.g. "small group activities" either "occurred" or "did not occur". Full details of all categories are available in T&LiTE (1994) but some common responses are shown in Table I.
Identification of sub-groups of students using Surface and Deep Approaches

The means and standard deviations for surface and deep approaches for the whole sample of 987 are shown in Table II.

Those students whose SA and DA scores were at least 1 standard deviation above the total sample mean score for SA and DA respectively were identified and intact classes were identified using the following criteria:

- a relatively large number of students claiming to use a surface approach along with a relatively small number of students claiming to use a deep approach to learning;

- a relatively large number of students claiming to use a deep approach along with a relatively small number of students claiming to use a surface approach to learning;

The groups with the dominant approach within such classes then became the focus of the study. The rationale for selecting groups within intact classes is that the perceptions of the groups will be about the same lecturer and the same learning environments (subject matter, assessment, activities etc.).

Out of the 19 classes available from the 987 students, this process identified four groups within intact classes with the following characteristics:

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total N in class: 101</td>
<td>Total N in class: 74</td>
</tr>
<tr>
<td>N using SA: 28 (27%)</td>
<td>N using SA: 17 (23%)</td>
</tr>
</tbody>
</table>
Groups 1 and 2 consist of students who claim to use a dominantly Surface Approach to learning and Groups 3 and 4 consist of students who claim to use a dominantly Deep Approach to learning. The gender and age characteristics of each group and the total sample of 987 are shown in Table III. Chi-Square Tests and t-Tests were used to compare each group with the total sample with respect to gender and age respectively. The only significant differences that emerged were that Group 1 was a significantly younger \[t(1013)=2.5, \ p<.05\] and Group 4 was a significantly older group \[t(997)=5, \ p<.001\] than the whole sample.

Results

The general descriptions given at the beginning of the summary of the perceptions of each group are based on the highest occurring frequencies of the categories of "statements" and associated "reasons". In each case, this is followed by examples of specific comments in those categories.

Group 1 - Surface Approach

Of all the events and behaviours that occurred in their learning environments, this group of students felt that their learning was helped when the presentation by the lecturer was clear, well paced and included practical applications because those activities clarified and consolidated information, made learning easier, did not waste time and assisted in the students'
preparation for assessment. Typical examples of students written comments are:

"My learning is helped when

pages of unnecessary information and this allows time to really listen."

the main points to be arrived at because then you have succinct notes and know what's important and what's not."

read along and not rush.

gives me guidance as to what to expect.

lecturer gives you a model to work and study from."

the exam because you know how to answer questions - very important for (content area) subjects".

because it lets me see how assignments must be written."

Of all the events and behaviours that occurred in their learning environments, this group of students felt that their learning was hindered when the presentation by the lecturer was not clear, badly paced and lacked variety and class discussion was not structured and the class was not disciplined because those activities prevented the clarification and consolidation of information, made learning more difficult, wasted time and hindered preparation for assessment. Typical examples of students written comments are:

"My learning is hindered when

copy down because your notes for the tute aren't enough to refer back to."

down because it's hard to keep up when they talk too fast."

follow and can't give her a right model to answer exam questions."

that they do not care about trying to get the point across to students."  
because I fall asleep."

guiding the discussion because the discussion is usually
uninformative and usually doesn't stay on the right track."
the prescribed work."
one knows and it often wastes time."
miss out on the relevant info and this puts me behind."everything because you don't know what is really important."approach because this makes it difficult to study for exams."

Group 2 - Surface Approach

Of all the events and behaviours that occurred in their learning environments, this group of students felt that their learning was helped when the presentation by the lecturer in an appropriately sized group, was clear, included practical applications and questioning and the lecturer supported students both personally and in their learning because these activities clarified and consolidated information, individualised and personalised learning, made learning easier and assisted the students' preparation for assessment. Typical examples of students written comments are:

"My learning is helped when other because it is more friendly, relaxing and comfortable."
board because it enhances my understanding."off the board because it assists greatly in learning."because by then I will be able to go through notes which I don't understand."effort in(to) my studying."you get a direct answer to what you want to know."me from researching in the wrong area and wasting my time."papers because we then have an idea as to how to prepare for exams."study from."
Of all the events and behaviours that occurred in their learning environments, this group felt that there were two major influences that determined what hindered their learning. First, the lecturer, where the lecturer's presentation was not well structured, poorly paced, lacked variety and relevance and second, themselves, where they felt that their own low self-esteem also adversely affected their learning. They regarded these activities and characteristics as important influences because they made learning more difficult, decreased concentration, wasted time and meant that the lecturer did not provide guidance, direction and support. Typical examples of students written comments are:

"My learning is hindered when time to be covering content that is not relevant."

difficult to keep up to date."

revise to keep you on track."

notes because it makes study difficult and the text does not specify topics that the lecturer may want emphasised."

become tedious and I lose concentration."

same routine class work."

have formed an opinion and may look foolish."

I'm a slow learner and can't answer the questions."

is wrong."

Group 3 - Deep Approach

Of all the events and behaviours that occurred in their learning environments, this group of students felt that their learning was helped when the lecturer was perceived as having expertise and presented in a clear, well structured way using resources and discussion in a personalised classroom because these activities clarified and consolidated information and made learning easier through exposure to a variety of student and lecturer perspectives and resources and by increasing the amount of interaction and participation. Typical examples of students written comments are:
"My learning is helped when because it is the little intricacies of the subject that are most interesting and memorable."

greatly assist research for assignments and general understanding."

information because it increases one's capacity to retain the

information and study further afield."

own individuality and uniqueness because it makes you feel worthy, highly regarded and motivates you to prove your worthiness."

because she relates her experiences to us and motivates you by her enthusiasm."

reflect upon the subject because the lecturer is then aware of our needs and capabilities."

assists in clarification."

debate because in this sized group it increases group learning and classroom dynamics."

evaluate own perception against peers' - learn more from them."

Of all the events and behaviours that occurred in their learning environments, this group of students felt that their learning was hindered when the classes were not disciplined, classroom discussion was dominated by a few students, there was too much information presented to allow reflection and the presentation was not clear. These activities reduced the clarity and ease of learning due to the reduction in equitable and appropriate interaction and participation and the denial of access to a variety of student and lecturer perspectives. Typical examples of students written comments are:

"My learning is hindered when do not stop them because I find it hard to concentrate on the lecturer if there is general mumbling going on."

skills because the students become bored and despondent and this leads to an inefficient learning environment."
relatively short time
because I feel I have too much information to absorb."

reflect upon what you have learnt."

shallow, one-sided or not really cared for because learning
should be open-minded not a tightly controlled package."  

get a chance to interact."  

no input from anybody else and it's hard to learn anything more
if you're the only one talking."  

tutorials because I feel that I am missing out on content."  

Group 4 - Deep Approach

Of all the events and behaviours that occurred in their learning
environments, this group of students felt that their learning was
helped when discussion, small group and experiential activities
occurred, when lecturers supported students' learning and the
students were personally involved in their learning because these
activities enhanced clarification, consolidation and integration
of information, promoted thinking, supported the use of self-
paced, self-directed and individual styles of learning. Typical
examples of students written comments are:

"My learning is helped when

others' opinions, questions, answers etc."

and investigation of a subject because it helps clarify
problems."  

discussed."

learn alternate ways of functioning."

me to experience the learning directly."

because I felt more involved in my learning processes and
direction."

some analytical thought processes for me - often I'm too lazy to

generate this off my own back."
allows me to move on to other concepts I have not considered."

it makes me test out my own hypotheses.""

basis because it provides the opportunity to have personal needs/concerns attended to.""

me quickly relate to the new information.""

me autonomy and a sense of being in control.""

styles.""

Of all the events and behaviours that occurred in their learning environments, this group of students felt that their learning was hindered when the lecturer lacked expertise, paced presentation badly, was unaware of the students' knowledge base and needs, did not provide personal support, assumed a superior status and when there was little interaction among students because these activities and characteristics reduced the opportunity for clarification of information, decreased students' personal involvement in and control over their learning, reduced the possibility of interaction and participation and recognition as a person. Typical examples of students written comments are:

"My learning is hindered when

are unrealistic expectations of students' performance.""

don't.""

they don't and cannot presume that a role equates with expertise ability, knowledge or empowerment principles.""

and presumes that I know as much if not more than they do because I can't take down notes or grasp concepts because they have talked too quickly.""

treated as such.""

feel involved.""

spoken to and not involved in the process.""

in control of our learning."
Discussion

Surface Approach Groups

The perceptions of Groups 1 and 2 are very similar. Both believed that their learning was helped when presentation was clear, well structured, well paced and included practical application. They appreciated these aspects of their learning environments because they clarified and consolidated information, made learning easier and assisted them in their preparation for assessment. What students in these groups did not appreciate was the obverse of the above - lack of structure, clarity and variety, poor pacing and poor discipline - because these behaviours and activities made learning more difficult and hindered preparation for assessment. The only major differences between the groups was that Group 2 included negative personal characteristics as having an adverse influence on their learning and, as indicated earlier, Group 1 was a significantly younger group. These differences and their implications are not explored here as it is the Deep Approach groups that are of more interest and these are discussed in some detail next.

Deep Approach Groups

Both Groups 3 and 4 perceive that interaction and positive, supportive interpersonal relationships help their learning while the opposite, reduction of the opportunity for quality and equitable interaction due to an inept lecturer or a dominant minority of students, hindered their learning. They do however differ in important ways: Group 3 emphasises the provision of some structure in their learning environment by the lecturer as helping them learn or hindering them if it is not present, while Group 4 report that their learning is facilitated when they are given some freedom, autonomy and opportunities for self direction and indicate that their learning is hindered when those features are not available in their learning environment. There are at least two possible explanations for this difference.

First, the difference between Groups 3 and 4 may be explained to some extent by age. As indicated earlier, Group 4 was a significantly older group. Dart (1994), in reviewing the surprisingly limited research on the influence of age on the adoption of approaches to learning and supplementing that with
research of his own, found that older students were more likely to adopt a deep approach (as opposed to a surface approach) and to use cognitive strategies associated with a deep approach. However, both Groups 3 and 4 reported having an orientation of a deep approach. It may well be that there are qualitative differences between Group 3 and Group 4 in terms of the way they process information. Such differences could be identified in their conceptions of learning (Marton, Dall’Alba & Beaty, 1993) and their strategy use (Dart, in press). This is currently being explored (Dart & Clarke, 1994).

A second explanation could lie in the behaviour of the lecturer. One of the factors that may influence the way that the intention of using a deep approach is brought to actuality is the particular approaches to teaching used by lecturers. In Group 3, it could well be that the lecturer went about teaching in such a way as to provide a structured learning environment within which understanding could develop. In Group 4, the lecturer's approach may well have been to provide students with more autonomy to achieve the same end. An examination of the lecturers' beliefs about learning and the congruence between that and their stated intentions of how they go about teaching is also the subject of ongoing research (Clarke & Dart, 1994).

The real explanation of the difference between Group 3 and Group 4 probably lies in some combination of these possibilities. Whatever the explanation, these differences should caution lecturers to avoid talking generally about "a" deep approach as if it were a unidimensional concept. For some students, a deep approach to learning may mean using appropriate strategies that enable them to seek meaning and understanding in an environment that is well structured and organised and supports that intention; for others, it may mean pursuing the same intention in an environment that gives them some measure of control or autonomy in their learning and so necessitating the use of other strategies appropriate for that environment.

Comparison of the Surface Approach and the Deep Approach Groups

In comparing the "pen picture" descriptions of the groups, a number of similarities are evident. All groups to varying degrees had similar perceptions as far as appreciating clear well
paced and well structured presentations and disparaging unclear, badly paced and unstructured discourse. However, the reasons given by the two sets of groups for appreciating these activities in their learning environments were significantly different. For the surface approach groups, these activities made preparation for assessment easier while for the deep approach groups, they facilitated further research and understanding and allowed them to increase personal involvement in their learning. The difference is encapsulated in the comments: "My learning is helped when the lecturer explains things properly and gives the format for the exam because you know how to answer questions - very important for [content area] subjects" (Group 1 [Surface Approach] student) and "My learning is helped when the lecturer uses concise, well-presented and documented information because it increases one's capacity to retain the information and study further afield" (Group 3 [Deep Approach] student). The other major difference was in the perceived importance of classroom interaction. The Surface Approach groups did not perceive this activity as important at all in their learning while, for both the Deep Approach groups, the vehicle of discussion which exposed the views of all participants - students and lecturer - to scrutiny was seen as crucial in the development of personal meaning and understanding.

Conclusion

One of the aims of this paper was to provide empirical support for the theoretical conjectures about what types of learning environments will promote the use of strategies consistent with a deep approach to learning. The outcomes of the study do support a number of the suggested practices summarised by Ramsden (1992): Surface approaches are encouraged by "assessment methods that create anxiety", "an excessive amount of material in the curriculum" and "lack of independence in studying"; while deep approaches are encouraged by "stimulating and considerate teaching, especially teaching which demonstrates the lecturer's personal commitment to the subject matter and stresses its meaning and relevance to students" and "opportunities to exercise responsible choice in the method and content of study".

However, in attempting to achieve this aim, a more important issue has emerged with regard to the use of such "checklists". Lecturers (and researchers) using the concept of "approaches to learning" from their own perspectives, need to be aware that it may not be encapsulating the range of activities in learning
environments that students using these approaches to learning see as facilitating a specific approach. In a particular learning environment, using checklists that identify factors that facilitate or inhibit specific approaches to learning may be useful for the learning of some students but not others. There are no such things as general recipes that can be relied on to be successful in promoting change in or maintaining "a" deep approach to learning for all learners. Any approach to learning, and the one of particular interest here is the deep approach, is a complex, multidimensional and, in particular, a personal construct. Therefore, student perceptions of what helps or hinders their learning need to be accounted for in developing learning environments that facilitate say a deep approach to learning. The message for lecturers is clear: a lecturer can not just get up in front of a class and teach in recipe-driven ways that are suggested by theory, conjecture, and even normative empirical findings. What the data in this study is saying is that lecturers need to be flexible in their teaching styles and, cognisant of the "checklists", try to accommodate the learning needs of all in their class such as providing opportunities for autonomy and within the same environment providing structure for those who prefer it. This means catering for the different perceived facilitators of learning that will allow students to achieve the same goal of personal and meaningful understanding.

References


DART, B.C. (in press) A goal-mediational model of personal and environmental influences on tertiary students' strategy use, Higher Education.


T&LiTE (1994) The Teaching and Learning in Tertiary Education (T&LiTE) Project. A report prepared for the Teaching and
Learning Committee, Queensland University of Technology by the Research Concentration in Cognition in Learning and Development, School of Learning and Development, Queensland University of Technology, Brisbane.


YOUR PERCEPTIONS OF YOUR LEARNING ENVIRONMENTS

This questionnaire focuses on how events in learning environments influence your learning. You are asked about events which help you in your learning and which hinder you in your learning.

You may experience a variety of learning environments. These could include:

LARGE GROUP LECTURES where there are more than 50* students;
SMALL GROUP LECTURES where there are between 25 and 50 students;
SEMINARS/TUTORIALS where there are less than 25 students;
ONE-TO-ONE TEACHING, just student and lecturer/tutor;
PRACTICAL SETTINGS ON CAMPUS such as laboratories, gymnasium etc.
PRACTICAL SETTINGS OFF CAMPUS such as work environments, schools, hospitals etc.

* Numbers are approximate
EVENTS THAT HELP YOU LEARN

For the subject you are now in, think about the behaviours and activities of lecturers/tutors and students which you feel have helped your learning. In your own words, please describe these behaviours and activities and also indicate why they helped you learn. Give as many examples as you can from the different learning environments listed above.

An example of how you may respond is:

In ________Seminars_________

it helps my learning when __the tutor explains__

__step by step how to do things_____________

because __it is easier to see the connections__

________________________________________

Figure 1  Questionnaire Format

Table I  Sample responses to popular "statement" and "reason" categories

StatementPositive Pole (+)Negative Pole(-)

Practical LearningNo Practical Learning

Practical application/"Practical everyday"The lecturer doesn't experiential learningexamples are given togive us very much time occurssupport every point"on the computers"

ClearUnclear

Clarity of presentation"The tutor explains step"The tutor does not by the lecturerby step how to doexplain things clearly" things"
Variety

No Variety

Use of a variety of "Things are explained in" The lecturer speaks classroom/presentation different ways and with continuously for the full activities different mediums lecture, reading from (visual, oral etc.) "notes"

Reason

Positive Pole (+) Negative Pole (-)

Increased Decreased

Effect on clarification / "It gives me the chance" It does not help me understanding of learning to have particular clear up a particular misunderstandings issue or idea "clarified"

Increased Decreased

Effect on the "It facilitates my" You have gained amount/ease of learning "nothing from the lecture"

Increased Decreased

Satisfaction of students "It maximises my" You can't get the learning needs "information down"

Table II Descriptive Statistics for Surface and Deep Approaches for the Total Sample

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Approach</td>
<td>3.44</td>
<td>0.53</td>
</tr>
<tr>
<td>Deep Approach</td>
<td>3.38</td>
<td>0.54</td>
</tr>
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</table>
Table III  Comparison of Characteristics of the Four Groups with the Total Sample

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
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<td></td>
<td>987</td>
</tr>
</tbody>
</table>

Chi Square ns ns ns ns ns
(Group vs Total Sample)

Age

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>21.623</td>
<td>23.923</td>
<td>23.5</td>
<td>23.2</td>
<td>23.6</td>
</tr>
<tr>
<td>SD</td>
<td>4.0</td>
<td>5.5</td>
<td>5.1</td>
<td>9.0</td>
<td>7.1</td>
</tr>
</tbody>
</table>

t-test = 2.5 ns ns t=5.0
(Group vs df=1013 df=997 Total Sample) p<.05 p<.001

Figure 1  Questionnaire Format

Table I  Sample responses to popular "statement" and "reason" categories

Table II  Descriptive Statistics for Surface and Deep Approaches for the Total Sample

Table III  Comparison of Characteristics of the Four Groups with the Total Sample