
**This is the postprint version.**

This is an Accepted Manuscript of an article published by Taylor & Francis in *Higher education research and development* in 2002, available at: [http://www.tandfonline.com/10.1080/0729436022000020788](http://www.tandfonline.com/10.1080/0729436022000020788)

©2002, HERDSA

Reproduced by Deakin University with the kind permission of Taylor & Francis.

**Available from Deakin Research Online:**

[http://hdl.handle.net/10536/DRO/DU:30006691](http://hdl.handle.net/10536/DRO/DU:30006691)
An improved questionnaire for gathering student perceptions of teaching and learning

Marcia Devlin

Centre for the Study of Higher Education
The University of Melbourne

ABSTRACT: An instrument used to gather university students’ perceptions of their learning environments, the Perceptions of Learning Environments Questionnaire (PLEQ) has been used recently in higher education research. The current paper examines the strengths and limitations of the PLEQ, particularly in relation to uncovering student perceptions about responsibility for their own learning. A study trialling a modified questionnaire, which builds on the advances and addresses the limitations of the PLEQ, is reported.

Introduction

The Perceptions of Learning Environments Questionnaire (PLEQ) was first used in a large investigation seeking university student perceptions of their learning environments (QUT, 1994). The PLEQ was developed by a team of researchers who undertook the Teaching and Learning in Tertiary Education (T&LiTE) Project during 1992-1993 at the Queensland University of Technology (QUT). The PLEQ was one of a range of tools employed in this large study to gather information about teaching and learning at the university. Since then, members of the original team have published widely based on the findings from this initial project use (see for example Clarke, 1995, 1998 and Taylor, 1994, 1996).

The PLEQ addresses many of the limitations of previous tools used in this important area of research. It does so by

- allowing the complexity of university study to be explored
- allowing students choices in indicating the environments and factors in learning of importance to them and
- investigating why students hold the perceptions they hold (Clarke, 1995).

The PLEQ therefore recognises and acknowledges the significant value of detailed student views on their learning environments. Given these advances, it would seem that the PLEQ has contributed significantly to research into university student learning and some of the findings reported appear to support this assumption (see Clarke, 1995, 1998).

The argument of this paper, however, is that despite its advances, the PLEQ still may not measure student perceptions in sufficient depth. In particular, aspects of the PLEQ’s design may limit the potential for its contribution to the understanding of the ways in which students construct their knowledge. Specifically, the underlying focus of the PLEQ; the questions included in the questionnaire and the way in which these questions

are constructed are not entirely conducive to eliciting information about student learning processes, in particular, information about their perceptions of their own contributions to their learning. Most particularly, the PLEQ’s design requires students to focus and comment on the behaviour of others and does not allow them to communicate their views on how they themselves are contributing to their learning. This paper provides an argument, with supporting empirical evidence, that the PLEQ can be significantly improved to incorporate detailed information about student learning, which may be used, in turn, to improve both teaching and learning.

This paper reports on a trial of a revised version of the PLEQ that allows students to report on their perceptions related to learning in a more comprehensive range of learning environments than those offered in the PLEQ and that allow students to describe their own behaviour and activities around their learning. This pilot study provides strong evidence that the revised instrument can access information about student learning that was not possible to obtain with the PLEQ.

**Background**

The Project team that devised the PLEQ stated that they had “…a philosophical orientation towards the constructivist cognitive view of learning as exemplified by theorists and researchers such as Biggs (1989), Entwhistle (1987) and Marton (Marton and Saljo, 1984)…” (QUT, 1994, p.3). From that philosophical orientation, one of the original Project team members, Clarke (1995), comments that the ‘traditional’ ideas about good teaching of the students with whom the PLEQ was first used are a cause for concern. He later reports that their interpretation of good teaching “…contains none of the notions central to the …constructivist views of learning…which emphasise that learners actively construct knowledge for themselves…and [interpret] this on the basis of …assuming responsibility for their own learning” (1998, p. 114).

Blais (1988) explains that constructivism is a philosophical position where knowledge is viewed as something that each learner must construct. Within this view of learning, each individual accepts responsibility for their learning and creates his/her own unique schema of the world. This view is in contrast to the more ‘traditional’ view of learning as the transmission, from teacher to student, of a discrete body of information or knowledge. From this traditional view, the student is dependent, a ‘listener-follower’ and there is less reason for the student to think for him or herself (Creedy, Horsfall and Hand, 1992). On the basis of the QUT (1994) study findings, Clarke (1998) concludes that student perceptions that the responsibility for their learning lies with their teachers “…tend to be consistent with the transmission model”(p. 114). Clarke (1995, 1998) is concerned at the lack of evidence of study participants taking responsibility for their learning, as the necessary basis for constructing knowledge.

*Interpreting the QUT study findings*

The results of the large QUT study, on which Clarke (1995, 1998) reports, seem to indicate that participants hold a traditional, ‘transmission’ view of teaching where the
student plays a passive role. But this interpretation of the findings is likely to be incorrect. It is the argument of this paper that any limitations are with the PLEQ, rather than with the notions implicit in student responses to the questionnaire.

The PLEQ

The PLEQ asks students to comment on the behaviour/activities of others in teaching situations by including:

- A request for descriptions of ‘events’ related to the behaviour/activities of lecturers/tutors and other students that have helped and hindered the learning of participants
- Examples of how the participants could respond to these requests that focus on the behaviours/activities of lecturers/tutors and other students
- A range of categories of learning environments which includes large group lectures \( (n >50) \) through smaller lectures and tutorials \( (n \text{ between 25 and 50}; \ n <25, \text{ respectively}) \) to 1-1 teaching as well as practical settings on and off campus. The students choose the environment/s on which to base their description/s from this selection (See Appendix).

Therefore, the PLEQ specifically asks students to describe the behaviour/activities of others. It contains no mechanisms for students to report their perceived contributions of their own behaviours/activities to helping and hindering their learning. Examples given as guides as to how participants might respond also, necessarily then, include only those related to the behaviour/activities of others. Such a restricted focus is abstruse. The developers of the PLEQ argue that they were seeking to improve teaching and therefore, as Clarke (1995) says, the questionnaire is used to produce student views of good and bad teaching. If so, why not seek student views of both teaching and learning? The two are related and information about how students learn can be used to improve teaching. And since the PLEQ does not explicitly offer students the opportunity to refer to themselves or their own contributions to learning, how is it then valid to report an absence of such referral as if it was a failing on their part?

A further concern is that there is no category of learning environment provided in the PLEQ that accounts for situations where students might be more likely to construct and form their own representations of the material to be learned. One example of such an environment might be an independent study environment. In this environment, student responsibility for learning is clear cut - unambiguously, they are responsible for the learning that goes on there. Evidence of students taking responsibility for their learning can be isolated. The PLEQ does not offer students explicit ways to describe their learning in these situations. This challenges the validity of Clarke’s (1995, 1998) interpretation that there is no evidence of students taking responsibility for their learning.

Similarly, another environment where students are more likely to construct their own knowledge and understandings is the studying with student colleagues environment, where there are no teachers present. Yet the PLEQ does not offer students explicit ways to comment on these environments either. Arguably, each student's responsibility for
their own learning in such an environment is not as clear-cut as the independent study environment. Nevertheless, when studying with student colleagues, students can at least co-construct learning, probably often to a larger extent than they can in the teacher-led environments to which the PLEQ is restricted. There is certainly no danger of teacher dominance when studying with student colleagues. Again this raises issues about the validity of Clarke's claim that students are not reporting a sense of responsibility for their learning.

Given the focus, questions and examples included in the PLEQ, the combination of which does not offer students explicit means to communicate evidence of their own contributions, it is hardly surprising that responses from participants may indicate a lack of perceived responsibility for their learning.

Conception of teaching on which the PLEQ is based

A possible explanation for the omissions of the PLEQ might be the conception of teaching on which the PLEQ seems to be based. Research into conceptions of teaching held by university teachers indicates that views of what teaching is include:

a) transmitting concepts of the syllabus
b) transmitting the teacher’s knowledge
c) helping students acquire concepts from the syllabus
d) helping students acquire teacher’s knowledge
e) helping students develop conceptions and
f) helping students to change conceptions (Prosser and Trigwell, 1999).

As one moves toward the top of this list, the conceptions are increasingly, as Prosser and Trigwell put it, teacher-focused. As the name suggests, teacher-focused conceptions are focussed on what teachers do and the PLEQ is concerned more with the behaviour of teachers than of the responding students. Although it does ask students for their views, it specifically requests that they focus on the behaviour/activities of teachers (and other students) and does not specifically direct them to consider and include their own contributions to learning. Moving toward the bottom of the list, the conceptions become increasingly student-focused. But because it centres on teacher behaviour, responses to the PLEQ cannot indicate whether student conceptions are changing (conception f) or, indeed, what student conceptions are (e). Further, students are discouraged from referring to their own behaviour and therefore, whether or not students acquire teacher’s knowledge (d) or concepts (c) cannot be determined through use of the PLEQ either. The PLEQ can, however, provide information about what teachers are doing, and from the student point of view, and possibly whether students believe teachers are transmitting their knowledge (b) or the concepts of the syllabus (a).

Despite this possible explanation, according to those who designed the PLEQ, student views of teaching gathered from the PLEQ were intended to be used ultimately to improve their learning. It seems strange, then, that the instrument did not also focus on the behaviour/activities of the responding student. However, further speculation on this matter is beyond the scope of this paper.
**Suggested amendments to the PLEQ**

In order to determine whether or not students take responsibility for their learning, it is necessary to ask students to think about and reflect and report on their own learning processes. Although the developers of the PLEQ did not, other researchers have made attempts to do this in a number of ways. For example, Killen (1994) examined participants’ perceptions of their own contributions to their learning through providing the opportunity for students to identify themselves as ‘responsible’ for their success. However, he did so only in terms of general factors such as ‘love of learning’ and ‘lack of self-discipline’, rather than in terms of use of specific processes.

In an attempt to uncover student perceptions about responsibility for their learning, the present study designed and piloted a modified instrument. This new instrument takes advantage of the improvements of the PLEQ on previous instruments, and addresses some of the aspects of the PLEQ, as discussed, that have limited the kinds of information it can collect. This modified instrument is a close approximation of the PLEQ but includes the changes and additions described below. The modified instrument does not ask participants to comment only on the behaviour/activities of others in teaching environments but to comment more generally on learning environments. It does so through including:

- A request for descriptions of the behaviours/activities of the participating student that have helped and hindered their own learning, in addition to the request for descriptions of the behaviours/activities of others
- Examples of how the participants could respond to these requests that focus on the behaviours/activities of lecturers/tutors, other students and themselves
- Two additional categories of learning environment which would account for independent study and studying with student colleagues (see Appendix. Note that the appendix contains an excerpt of the questionnaire and therefore only a selection of examples).

In addition, the modified instrument also includes

- A request for participants to assign numerical percentages to people and/or factors they view as responsible for their learning. These people/factors include *themselves, fellow students, lecturers/tutors, other people and other factors*. In the latter two categories, the ‘other’ must be specified by the respondent (see Appendix).

These amendments were intended to produce an instrument which provides information about students’ perceptions of their own contributions to their learning and both indirect and direct information about student views on responsibility for their learning. The modified instrument can be accurately described as the Perceptions of Learning Environments Questionnaire II, or the PLEQ(II).
Study method

Participants

A type of accidental sampling approach (Cohen and Manion, 1996) was used in this study. The coordinators of first year undergraduate subjects in a range of Academic Groups at the University of Western Sydney (UWS) were sent a memorandum outlining the study and requesting their assistance with accessing potential participants. The coordinators were asked to allow a small amount of class time for the researcher to explain the study to the students, ask for volunteers and, for those who agreed to participate, give instructions for participation outside of class time. This process meant that the ultimate sample was not randomly selected as it resulted from working with whichever coordinators responded positively to the request for assistance and including whichever individual students volunteered, until the required sample size was obtained.

Participants were 100 undergraduate students currently (in 1998) enrolled in and studying a first year subject in a course at UWS. Year levels ranged from University Diploma to fourth year, with 77 of the 100 participants first year students. The participants' were undertaking a range of courses. These included the

- Bachelor of Building (53 students);
- Bachelor of Horticultural Science (26 students);
- Bachelor of Agricultural Science (9 students);
- Bachelor of Landscape Management and Conservation (5 students);
- Diploma of Applied Science (4 students);
- Bachelor of Applied Science (Environmental Health) (1 student);
- Bachelor of Nursing (1 student); and the combined
- Bachelor of Commerce/Agricultural Science (1 student).

Eighty-one of the participants were male and 19 were female. Ninety-six of the students were full-time students and 4 were part-time. The age range of the participants was from 18 years to 52 years, with an average age of 21.9 years.

Data collection

The collection of data took place a number of weeks into second semester so that participants had at least one semester's experience of university study and so that perceptions about their current experiences had had time to stabilise. Information and consent forms and questionnaires were administered at the end of lectures timetabled in the morning of a day when students had both morning and afternoon classes. Potential participants were instructed to read the information and consent form and if they were willing to continue and participate, fill in the questionnaire that day, on their own, by following the instructions within it. They were asked to then bring the completed questionnaire to a specific lecture timetabled for the same afternoon where it was collected by the author.
Where it was evident that the respondent had a non-English speaking background or for some other reason had simply copied the examples as their own responses to the prompts about helping and hindering learning, the questionnaire was eliminated from the analysis.

**Results**

*Construct validity of measures of personal responsibility*

Constructs are theoretical structures used to organise and make sense of the human environment. The main construct of interest in this study is personal responsibility. The way in which this construct is measured is important to consider. The use of only one indicator to measure a construct is problematic because it is not possible to identify and separate the different sources of variability of the indicator (Pedhazur & Schmelkin, 1991). In order to increase the validity of the study, multiple indicators of personal responsibility, as described below, are used to determine student perceptions of responsibility for their learning.

In addition, the construct 'personal responsibility' is difficult to examine with any sort of self-report method, which, by its nature may be inaccurate. To increase the validity of the self reports necessary in this study, the criteria outlined by Kuh (2001) were followed. These are that the questions be clearly worded, refer to recent activities to which the respondents have first hand experience, don’t intrude on private matters and don’t prompt socially desirable responses. The issue of validity is also addressed through the use of both indirect and direct indicators of perceptions of responsibility.

The PLEQ(II) asks participants both indirectly and directly to indicate where they perceive responsibility for their learning lies. The questionnaire specifically invites students to comment on their own behaviour/activities as well as those of others. Responses to these questions provide *indirect* indications of where students perceive responsibility for their learning lies, as explained below. In addition, the PLEQ(II) asks respondents to directly indicate who and/or what they believe is responsible for their learning by assigning proportions to these people and/or factors. Responses here are *direct* indicators of student perceptions of responsibility.

The first indirect indicator was the learning environment on which students chose to comment. For the purposes of the study, it was assumed that if students opted to comment on a learning environment in which they were likely to have all, or the majority of responsibility for their learning, this choice indirectly indicated a perception of responsibility for their learning. The two environments of particular interest, then, are the *independent study environment* and the *studying with student colleagues environment*.

Clearly, such a choice in itself would not necessarily indicate such a perception. What students do in independent learning situations and when studying with student colleagues is clearly variable, to say the least. Some of their behaviour/activity is likely to be influenced at times by what teachers have asked them to do. And just because they are working on their own or with other students does not necessarily mean that they are
taking responsibility for their learning. But it is probably more likely that they are taking such responsibility in these situations than not. And choosing to comment on this situation, rather than the teacher-led options equally available to them, perhaps indicates the salience of these environments in their minds when they consider their learning.

As indicated earlier, in order to strengthen the validity of the findings, a second indirect indicator of a perception of personal responsibility for learning was also used. This second indicator was reference to one’s own behaviour across the range of learning environments. By requesting that students comment on the behaviour of others in their responses, the PLEQ does not offer explicit ways for students to refer to their own behaviour. On the other hand, the PLEQ(II) extends student choice and provides the opportunity for students to comment on their own behaviour whenever they chose to do so. For the purposes of this study, it was assumed that if students chose to refer to their own behaviour as a major contributor to learning, a perception of responsibility for learning was indirectly indicated.

Once again, such a choice in itself may not necessarily indicate a perception of personal responsibility for learning. But coupled with the first indicator, choice of learning environment, the validity of such a measure is increased. And the validity of the study findings is further increased by the inclusion of a third indicator, this time a direct indicator, of a perception of responsibility for their learning among students. Participants were asked to attribute a percentage of responsibility for their learning to themselves, other people and other factors so that the total amount attributed added to 100%. This gave a direct indication of where students perceived responsibility for their learning lay.

1. Choice of learning environment as an indirect indicator of perceived responsibility

The number of times each learning environment was chosen by participants in relation to helping or hindering learning was tallied. The results of this tally are displayed in Table 1.

These results demonstrate that participants believe a range of learning environments both help and hinder their learning, including those in which there are no teachers present. A total of 89, or approximately 21%, of the responses to this section of the questionnaire, indicated a perception that learning is helped and/or hindered during private study and/or while studying with student colleagues. The fact that students chose to comment on learning environments where no teachers are present would suggest that they perceive that their learning is helped and hindered in environments where they themselves are likely to have the majority, if not all, of the responsibility for the learning that takes place. Participants in this study are indicating indirectly then, that they perceive that they are at least partly responsible for their learning.

Table 1: Number of times each learning environment chosen

<table>
<thead>
<tr>
<th></th>
<th>Lecture</th>
<th>Seminar</th>
<th>Tutorial</th>
<th>1-1</th>
<th>Private</th>
<th>Group*</th>
<th>Prac**</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>187</td>
</tr>
</tbody>
</table>

2. Reference to own behaviour as an indirect indicator of perceived responsibility

As explained, reference to one's own behaviour when asked to record what helps and hinders one's learning was assumed to be a second indirect indication of a perception of personal responsibility for that learning. It was evident from the responses that participants frequently reported that their own behaviour, within a range of learning environments, was one of the causes of, or major contributors to, helping or hindering learning. The tally of the number of times participants’ own behaviour was referred to in this manner, in each environment, is displayed in Table 2.

Overall, 24%, or almost one quarter, of all the responses made in relation to what helped or hindered the participants' learning made reference to students' own behaviour in a way that indicated this behaviour was the cause of, or a major contributor to, helping or hindering learning. Given the complexity of university study and the number of factors that could potentially contribute to or cause learning to be helped or hindered, these results indicate that participants see themselves as somewhat personally responsible for their learning, across the range of learning environments.

Table 2: Number of times participants' own behaviour was referred to in each learning environment

<table>
<thead>
<tr>
<th></th>
<th>Lecture</th>
<th>Seminar</th>
<th>Tutorial</th>
<th>1-1</th>
<th>Private</th>
<th>Group*</th>
<th>Prac**</th>
<th>Total no.</th>
<th>% of all R***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>19</td>
<td>3</td>
<td>2</td>
<td>39</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td>Hinder</td>
<td>7</td>
<td>17</td>
<td>6</td>
<td>10</td>
<td>11</td>
<td>13</td>
<td>64</td>
<td>27%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>14 (13.6%)</td>
<td>24 (23.3%)</td>
<td>7 (6.8%)</td>
<td>29 (28.1%)</td>
<td>11 (13.6%)</td>
<td>15 (14.6%)</td>
<td>103</td>
<td>24%</td>
<td></td>
</tr>
</tbody>
</table>

* 'Group' refers to the 'studying with student colleagues' environment  
** 'Prac' refers to practical sessions on and off campus, which were combined.  
*** '% of all R' refers to the percent of the overall total responses represented by the ‘Total no.’. For example, 39 is 21% of 187, the overall total number of ‘help’ responses and 103 is 24% of 421, the overall total number of all responses.

In order to illustrate the sorts of comments considered indicative of referral to one’s own behaviour as a major contributor to learning, some examples of responses categorised here are given in Table 3. The limitations inherent in interpreting qualitative data are acknowledged – as always in such cases, subjective decisions were made about whether or not data ‘fitted into’ a category.
Table 3: Examples of responses categorised as referring to participants' own behaviour as the cause of or a major contributor to hindering or helping learning

<table>
<thead>
<tr>
<th>Learning environment</th>
<th>Hindering</th>
<th>Helping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private study</td>
<td>In private study, my learning is hindered when <em>I haven't kept up with the reading</em> because it means <em>I am behind with understanding</em></td>
<td>In private study, my learning is helped when <em>I really concentrate</em> because <em>then I’m not distracted by outside things</em></td>
</tr>
<tr>
<td>Study with others</td>
<td>In study with others, my learning is hindered when <em>I am not sure what is going on</em> because <em>I have no confidence</em>…</td>
<td>In study with others, my learning is helped when <em>my friends and I discuss our work</em> because <em>we all have different ideas and what one may be good at the other may need help [with] or vice-versa</em></td>
</tr>
<tr>
<td>Practical settings</td>
<td>In practical settings my learning is hindered when <em>I muck around with my friends</em> because <em>I am avoiding hard work</em></td>
<td>In practical settings my learning is helped when <em>I observe what we [are] supposed to do</em> because <em>it can help me understand the concept</em>…</td>
</tr>
<tr>
<td>One-to-one teaching</td>
<td>In one-to-one teaching my learning is hindered when <em>I have not prepared well by doing the reading and listening in lectures</em> because <em>then I can't understand what the teacher is talking about</em></td>
<td>In one-to-one teaching my learning is helped when <em>I can ask questions and have them answered straight away</em> because <em>I like to know why and like to learn through asking questions</em>…</td>
</tr>
</tbody>
</table>

3. Attribution of responsibility for learning as a direct indicator of perceived responsibility

The average percent of responsibility attributed to each source, and the typical other people and factors indicated by respondents, are displayed in Table 4. It was clear from the results related to this indirect indicator that participants perceive themselves to have much more responsibility for their own learning than they do their teachers, colleagues or other people or factors and than all these factors combined. On average, they attribute more than half (56%) of responsibility for their learning to themselves. These students also perceive, on average, that just over one quarter (27%) of the total amount of responsibility for their learning lies with their teachers. Taken together, these two findings suggest that overall, these students believe that the majority of responsibility for their learning is shared between students and lecturers/tutors, with the higher proportion of responsibility being attributed to themselves.

Table 4: Average percentage of 100% responsibility attributed to each category provided

**Source of responsibility** | **Range of % attributed** | **Average % attributed** | **Standard Deviation**
--- | --- | --- | ---
Self | 10 - 100 | 56.3% | 20.4 |
Lecturers/tutors | 3 - 90 | 27.0% | 15.6 |
Student colleagues | 0 - 30 | 8.9% | 8.3 |
Other people | 0 - 50 | 3.9% | 7.6 |
*Family members, friends* | 0 - 30 | 3.9% | 7.0 |
Other factors | 0 - 30 | 3.9% | 7.0 |
*Resources (IT, library)* | | | |
--- | --- | --- | ---
Total: | 100% | | |

**Discussion**

The modified instrument described in this paper examines student perceptions of responsibility for their learning indirectly and directly. As with the PLEQ, respondents are asked what they believe hinders and helps their learning and why they hold such views. Through the PLEQ(II), however, they are also specifically invited to choose to comment on their own behaviour/activities as well as that of others. Further, they are offered the opportunity to choose learning environments such as private study situations and group work situations where they are more likely to perceive and report a perception of personal responsibility for their learning. The choices students made in relation to these aspects of the PLEQ(II) provide indirect indications of where students perceive responsibility for their learning lies. In addition, respondents are also asked to directly indicate who and/or what they believe is responsible for their learning and again they report a perception of personal responsibility.

Overall, the results of the study reported here demonstrate that if given the opportunity and the appropriate tools to do so, students will indicate how they are making contributions to and taking responsibility for their own learning. Clarke (1995, 1998) was concerned that students responding to the PLEQ were not taking responsibility for their learning nor actively constructing knowledge for themselves as learners. Perhaps these students were aware of what aspects of their own behaviour helped and hindered their learning, but the PLEQ simply did not provide the means to demonstrate or express this knowledge.

**Conclusion**

As mentioned earlier, the PLEQ produces results that focus on the behaviour/activities of teachers and others. By asking students to focus on both teachers/others and themselves,
and on both teaching and learning, the PLEQ(II) is able to facilitate the collection of information about student perceptions of responsibility for learning not previously possible. However, when seeking detailed information about student perceptions, data obtained through questionnaires are often enhanced with interview data. It would be useful to use responses to the PLEQ(II) to guide interviews with students about their perceptions of their learning environment.

The design of the PLEQ(II) is underpinned by the assumption that the responsibility for student learning and for improving student learning is shared between tertiary teacher and student. The modified instrument aims to provide information related to knowledge construction to students/lecturers/tutors, to inform possible changes in the behaviour/activities of both in order to improve student learning. Completion of the questionnaire provides an opportunity for students to reflect on their learning environments and learning processes within those environments. This opportunity may, in itself, be valuable to some participants in that the reflection might highlight areas of learning strengths and weaknesses and other potentially useful personal information related to their learning. The written record of this reflection also provides detailed information about student learning processes and perceptions about learning that may in turn be useful to lecturers/tutors in planning their teaching. Clarke (1995) concludes that the PLEQ seems to have the capacity to equip lecturers with “…comprehensive qualitative feedback…” (p. 10) about student views of their teaching. This, he adds, provides the basis for professional development for lecturers. As well as providing lecturers with student views of their teaching, the PLEQ(II) will add essential information about student learning to this feedback.

References


Appendix

Excerpt from PLEQ

This section of the 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 you and your lecturer/tutor;
- **PRACTICAL SETTINGS** on campus such as labs, gyms, workshops etc
- **PRACTICAL SETTINGS OFF CAMPUS** such as work environments, schools, hospitals etc.

* Numbers are approximate

**EVENTS WHICH HELP YOU LEARN**

For the subject you are now in, think about specific teaching behaviours/activities of lecturers/tutors or behaviours of other students you have experienced that you feel have **helped** your learning. Give as many examples as you can from the different learning environments listed above.

An example of how you may respond is:

In ________Seminars/tutorials________

my learning is helped when ___the lecturer/tutor asks

questions________________________
because ___ it makes me put my ideas into my own words_____________________

[...]

**EVENTS WHICH HINDER YOUR LEARNING**

For the subject you are now in, think about specific teaching behaviours/activities of lecturers/tutors or behaviours of other students you have experienced that you feel have hindered your learning. Give as many examples as you can from the different learning environments below.

[repeat of earlier list]

An example of how you may respond is:

| In ____________Seminars/tutorials________ |
| my learning is **hindered** when___ I am not given the opportunity to ask ___ questions_____ 
| because ____ I can't clarify whether my ideas are right or not________________________ |

Excerpt from PLEQ(II)

**YOUR PERCEPTIONS OF WHAT HINDERS AND WHAT HELPS YOUR LEARNING**

This section of the questionnaire about what you think affects your learning. First, things that **hinder** or **get in the way** of your learning. University study for you probably includes at least some of the following learning situations:

**LARGE GROUP LECTURES** where there are more than 50* students;  
**SEMINARS/TUTORIALS** where there are less than 50* students;  
**ONE-TO-ONE TEACHING**, just you and your lecturer/tutor;  
**PRIVATE STUDY**, where you study alone;  
**STUDying WITH OTHERS**, you and a small number of fellow students;  
**PRACTICAL SETTINGS ON CAMPUS**, such as labs AND/OR  
**PRACTICAL SETTINGS OFF CAMPUS**, such as hospitals, work environments, etc.

* Numbers are approximate
Think about specific behaviours/activities of lecturers/tutors, of other students and of your own that you believe have hindered your learning. Give as many examples as you like from the different learning situations above. Two examples of how you might respond are:

| In _______ a private study situation |
| my learning is hindered when _______ I can't understand the material I am supposed to be studying |
| because _______ I can't learn it if I don't know what it's about |

[Second example, and introduction to next part followed]

Now fill in as many of your own examples as you like, using whichever learning situations you choose from the list on the previous page. If you would like to give more than 4 examples, there are spare forms at the back of the questionnaire.

Now think about specific behaviours/activities of lecturers/tutors, of other students and of your own that you believe have helped your learning. Give as many examples as you like from the different learning situations above. Two examples of how you might respond are:

| In _______ labs |
| my learning is helped when _______ there is a lot of opportunity to try out the stuff covered in lectures |
| because _______ I can understand it better if I can see it happen |

[Second example followed]

Now fill in as many of your own examples as you like, using whichever learning situations you choose from the list on the previous page. If you would like to give more than 4 examples, there are spare forms at the back of the questionnaire.

YOUR OPINIONS ABOUT RESPONSIBILITY FOR YOUR LEARNING
This section is about who or what you believe is responsible for your learning. Note: you may allocate any percentage, including 0% or 100%, to any of the options below. The total percentage (%) must add up to 100%.

Read the following list and then write down the percentage of responsibility you believe each has for your learning.

| a) your fellow students | _________ % |
| b) you | _________ % |
| c) your lecturers/tutors | _________ % |

d) Other **people** (please specify)

__________________________  %
__________________________  %

e) Other **factors** (please specify)

__________________________  %
__________________________  %

**TOTAL:** 100 %