

The design of the projects and preparation of the equipment along with briefing the tutors is where a large part of the effort is spent in the development and running of the program.

6. STUDENT RESPONSES

The student response to the learning program has been quite positive. As a lecturer I am reported as popular. “Bob, they love you!” said the email from Associate Professor Carmel McNaught as she reported the results of the first focus group interview with volunteers from the student group. The results of a survey to determine how the students learned in my subject are shown in Figure 6. This clearly shows that lectures and laboratory work is where the students feel they learn most. Multimedia and other learning activities available were reported as less supportive of student learning. Some effort is being made in semester 2 to increase the attractiveness of the multimedia support material and the latest results will be reported at the conference.

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A follow up focus group interview teased out what it was about the lecture and the laboratory that the students gained from most. The focus group interviews reported that the lecture demonstrations “were the key learning feature of the lectures”, both live and video lectures. The predict-observe-explain methodology is well accepted with one student in the focus group spontaneously saying “It’s all designed around Predict Observe Explain” and being supported by all other members of the focus group. “He (the lecturer) always asks a question before a demonstration.” The survey of the class, Figure 3, confirms the importance of the lecture demonstration in assisting student learning.

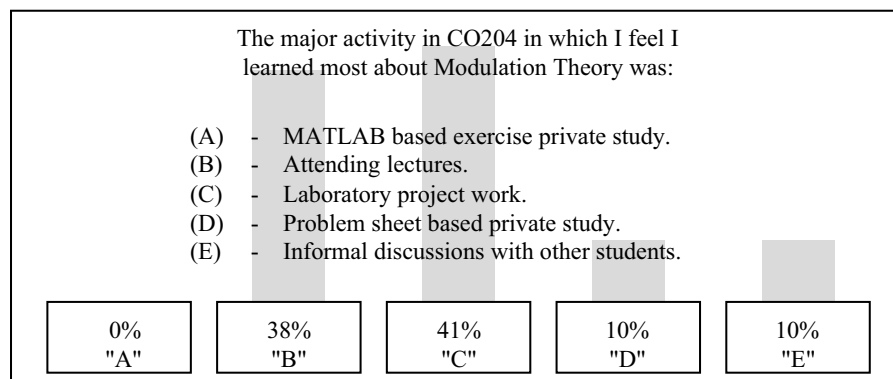


Figure 6: Major Learning Activities

It was a little more difficult to extract the highlight of the laboratory projects. “I learn a lot more when doing than just reading.” one student reported to the focus group. However the focus group also concluded that “labs were for verification rather than investigation”. This seems to support Laurillard’s contention that students who are inexperienced in the role of researcher will have difficulty with the discovery mode of learning (Laurillard 1994). In semester 2, the guidance given by the tutors in the laboratory project work will increase in an attempt to make them more investigative and thus more discovery centred. The results of any change in student approach to laboratory work will be reported at the conference.

Laboratory projects revolve about groups of 4 to 6 students. The RMIT Enterprise Engineering Education philosophy places equal emphasis on personal, business, and technological skill development (Bradley *et al* 1994). The personal skills of teamwork, leadership, and communication are exercised and rewarded in the investigative project work. However, lack of practical support for student groups who experience trouble needs to be addressed, as the survey result shown in Figure 7 indicates that the larger group size tends to be unpopular.