

Appendix 7

University Action Research Project – Interview data example

The following is an example of my notes taken after interviewing 13 students following a first year Applied Physics lecture during the topic of Atomic Physics. The interviewing of students was part of gaining feedback which could inform planning of future lectures and approaches. These notes served as a stimulus for the action research team to discuss how students are understanding, what they are gaining out of the course and what they are expecting from it. And then to discuss aims for their teaching and possible pedagogies and content likely to engage students better.

Student Feedback - beginning of semester (Atomic Physics)

Questions asked students included:

- *How are you going?*
- *Are you understanding things?*
- *What do you feel about participation/discussion in lectures?*
- *What is your attitude to physics?*
- *What they would like to see to conclude atomic physics.*

1. Girl, completed Physics Year 12, currently studying Pharmacy

- Haven't had much experience with experiments
- Found photoelectric effect confusing - didn't understand why we were doing it
- Found transforming equation practice too easy but other new things too quick, too hard
- Found questions in lectures useful but take time
- Wary of being in a new group
- Good lecturer - words are easy to understand - not too big or scientific
- Good analogies
- Applications good
- Have disliked physics in the past because it is too hard and boring. Hard to understand and too technical.

2. Girl, completed Physics Year 12, Pharmacy

- Photoelectric effect is just revision.
- More interested in applications and the theory to be more in depth.

3. Boy, Completed Physics Year 12, Pharmacy

- Forgotten most of photoelectric effect - the meaning of the formula, what work function relates to.
- Didn't really understand the lecture.

- Would like more notes or a book to refer to.
- Questions were useful.
- Can't see any application to him or course.

4. Girl, Completed Chemistry Year 12, Pharmacy

- Didn't understand photoelectric effect but am following it. Will follow it up in the text book. May have seen in first year Chemistry Course.
- Have done wavelength in Chemistry.... Can use formula but don't understand why.
- Prefer understanding concepts before doing calculations ... helps by connecting to other concepts or ideas.
- Found photoelectric diagram hard to understand ... needs to be explained... hard to picture.
- Participating in lectures is OK

5. Boy, Completed Physics Year 12, Science

- Understood photoelectric effect from last year but found it difficult to understand this year.

6. Girl, Completed Physical Science Year 11

- Didn't really get photoelectric concepts but doesn't expect to. Can use the formula.
- Not really interesting or relevant so no need to try to understand.

7. Girl + Boy, completed Physics Year 12, Ag Sc

- Both enjoy physics
- Found atomic physics OK because they had done it before but new bits were too fast.
- Could understand atomic energy levels but found laser application too confusing - like to have this gone over again.
- The notes are good - can go over them in own time.
- The analogy (soccer) was good - helped get a sense of what was going on.
- Found the questions in class were a bit out of the blue ... so hard to get thoughts together to respond. But would welcome time to interact with a group in class.

8. Girl, completed Physics Year 12, Pharmacy

- Lectures are OK but not doing any thinking in them. Doing this later at home.... Took 1/2 hour to derive a formula at home by self.
- The lectures are not interactive - can't feel that can ask questions.

9. Boy, completed Physics Year 12, Pharmacy

- Basically dislikes physics, finds it boring. Only finds stuff to do with space interesting. The easier it is the less boring.
- Doesn't expect to think in lectures.
- Calculations hard.

10. Girl, completed Physics Year 12, Pharmacy

- Finds it boring (but so is Chemistry) but looking forward to nuclear medicine lecture.
- Don't see why have to do physics for pharmacy, heard it will be dropped... 'what have oscillations got to do with dispensing drugs?'

11. completed Physics Year 12, Ag Sc

- Difficult to know what we are doing experiment for.

- Lecturer hard to understand
- Atomic is boring. It would be less boring if we knew how to apply it ... doing it for ourselves... problems.
- Would like examples of exam problems - get to do it in lecture then check answer.
- Would like more interaction to make it more interesting.
- It would make it more interesting if we knew how it is relevant to Ag Science, or medicine or just relevant.

12. completed Physics Year 12

- Need time to practice formula, given worked examples, tute time ... don't know which equation to use.
- 'Have to say I am really lethargic in lectures... following but can't really apply things.'