Department of Chemistry - Macquarie University

Student Learning Experiences in the Laboratory

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☐ I **do not** give permission for my comments to be used beyond the Department of Chemistry, Macquarie University.

The ethical aspects of this study have been approved by the Macquarie University Ethics Review Committee (Human Research). If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Research Ethics Officer (telephone [02] 9850 7854, fax [02] 9850 8799, email: kdesilva@vc.mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

Unit: CHEM101

EXPERIMENT 8 – PRECIPITATION REACTIONS AND REDOX REACTIONS

1 Did this experiment help you to understand the 2 different reaction types, double replacement (precipitation) and single replacement? If so, how, or if not, why not?

Yes, because it enabled me to visualize the reactions and therefore help me to understand the concepts behind it.

Yes because we had done them a while back and by practically doing it, it reinforces the theory and gives a visual understanding of what happens.

Yes, it made it more interesting.

Yes.

No – what is the point of all this if a student is not planning to follow a study path where this is important.

Yes, visual.

Yes, showed practically.

Yes for single replacements.

Yes – could physically see if change had occurred or not.

Yes it did – the more practice the better, plus our supervisor is excellent, she explains things the way the text can't.

Yes, as it helps to see the reactions occur.

Yes it did help.

Yes. It was a good visual aid so I could understand what we had learnt in lectures and tutorials.

Yes, it's good to see how these work, not only understanding the theory.

Yes a little bit. Prefer a few difficult questions rather many pages of easy ones.

2 Did this experiment help you to gain experience with equation writing and gain confidence with it? If so, how?

Yes, having to write out the several different equations allowed me to consolidate my skills in writing equations.

Yes because I had to write so many equations that it was a good practice!

Yes, as we had to write lots of equations, some were quite hard, though, because they were all similar.

Yes.

For chemistry career minded people fair enough. But what about the others. There is too much detail in this prac.

Yes, much practice.

No, previous experiments have showed this.

Yes, still not enough confidence. Need to revise this prac!

Yes – understood why it was replaced.

Yes! Again doing things in the text is different – plus more complicated equations and seeing things react.

No, I already know how to.

Yes the more equations I write the more comfortable it becomes.

Certainly did, because there was so many of them to fill in.

Yes – the quantity certainly allowed me to see how the equations work.

Yes, much writing.

3 Did you gain a better understanding of the solubility rules? If so, how?

Yes, by actually performing the experiments it helped me to understand because I was able to visualize the reaction.

Not really because the are pretty straight forward and I was already ok with them.

Kind of, but it was confusing.

Yes.

For those doing a unit or two of chem, what about general interest experiments. Not this stuff. This is bordering on ridiculous.

Yes, testing theory to find substance.

No, they were easy to understand already.

Sort of.

Yes wished demo. (?)

Yes and no…

No, because there are far too many to remember.

Yes understanding why some are insoluble and how it can help find other unknown substances.

Yes, because you are able to work hands on with them and see it happen in front of you, instead of in a textbook.

Yes, it was great to see these reactions, doing just theory is boring.

No. Working rate too fast, don't get time to think.

4 Can the experiment be completed comfortably in the allocated time? Is there time to reflect on the tasks while performing them?

Yes, but not much time for reflection.

Yes – a little rushed. No.

Yes, yes.

Yes, good timing.

Yes you can complete in time, just. Not really time for reflection.

Yes, yes.

Yes and yes.

Yes there is enough time (just enough to reflect).

Yes it's a comfortable working pace.

Sure.

No.

5 Does this experiment require teamwork and if so, in what way? Was this aspect of the experiment beneficial?

Yes, it's easier to talk it over with someone else.

Yes – opinions.

Yes, helps with discussion.

Definitely. Then you can discuss results together and exchange ideas.

Yes, helps work smoother. (?)

Yes, to be able to talk about it.

Yes teamwork is essential to doing Chem pracs as it allows you to have time to

Yes it is helpful because while you are washing away something the other person can get the next experiment ready.

Yes, having a partner makes the process more enjoyable, happier people, greater learning.

No, but the work can be done quicker if you cooperate.

Yes it does, this is highly valuable.

Yes.

Yes.

Yes it requires teamwork to balance the time restriction.

Yes each person does one reaction and the results are shared for part 1.

6 What improvements could be made to this experiment?

None.

Joint work.

Different elements used. Everything turned milky or white, not as interesting as blue or yellow.

NA

Not much.

It's pretty good as it is.

None.

Not as many questions.

7 Any Other Comments

NA

I love chemistry.