

## Question 1

*What do you understand about teaching in Biology in Context?*

Issue based

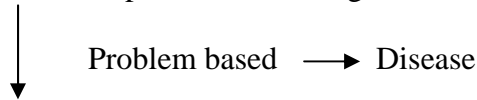
Biology taught in context captures everyone, more bits of the brain

- Can't conceptualise it not in context
- Can do it out of context, but it is more meaningful to have a starting place from where they are to where they are moving towards

Group students that have pure love of learning

Rearrange content to put it in a bigger picture

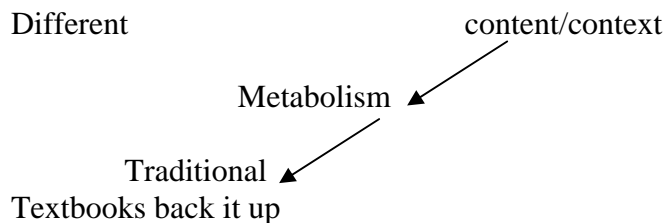
Context – provide a meaning



Theme based teaching – cover subject/content areas

Why you need to know this

Different



Harder/easier

Way they were taught

Name of Unit – if it has context, it is more popular with students

CORE theme based lecture once per week

Research should determine

Context vs Content

Tertiary institution/professional dynamic research

## Question 2

*Should teaching Biology in context only for non-biology majors?*

Depends on context :)

No

Often same content, just presented differently

Who/how “chooses” issues

Current media stories

Who looks to the future

Yes

Good idea, problem – not whole course

Need a balance

Different cohorts → is it relevant for Australian universities?  
Hooked to get in → something they had heard of  
Foster interest so that students realise they are interested,  
(ie context is not just what students are already interested in, but foster, create new interest)

Service teaching = non-majors

Maybe other way around?

If Def major: keen to find content anyway, concept more important (come from context)

Context used to drive interest

Context used to drive conceptual learning (rather than just naming facts)

Context can encourage understanding that values are important

Ethics

Also diversity of values and perspectives (i.e. value depends on context, changes with context)

Context = different values within class

Creates interest → fosters learning

Mixture for majors –a balance

Values

### Question 3

*Think of approximately three major barriers that may stop you teaching Biology in Context*

3 major barriers

- Traditional attitudes of staff
  - Timetabling issues
  - Rooming – computer labs, labs, tute rooms
- Resources
  - time
  - money
  - Student numbers
- Transference of content if conceptual learning
- Skills
- Staff

Staff – different attitudes, content important

Attitude to change

Resources      Time

Money

Introducing a new mode of learning

Student apprehension, resistance

Issue if not all units are the same

Change from secondary school, learning through university

Progression

If own teaching – then there are no real barriers

External stakeholders

Staff -            Traditional, hierarchical teaching

Existing framework

Resources –    rooms (can limit)

IT

Infrastructure

Fear -            at university level

At individual level

**Question 4**

*Think of approximately three opportunities that currently exist for the teaching of Biology in Context*

1. Lectures problem issue based
2. Tailor made topics in biology, e.g. GMO, stem cells, global warning
3. Problem based learning online e.g. racehorses, fragile X
4. Online electronic modules – fir their needs and interests
5. Restructuring – opportunities

**Question 5**

*List the BIG ideas essential in a curriculum for teaching and learning in Biology*

Curriculum context	Cell Cell as organisms Evolution Ecology Effects of environment Genetics Understanding concepts – big picture Language of biology Applications Lab skills Fieldwork skills
Generic graduate attributes	Writing/communication skills Numeric skills Sustainability of curriculum Robust Not contingent on staff

## **Question 6**

*Think of approximately three main issues for the teaching and learning of Biology in the next five years*

What is core?

Datamining – huge excess of information, published research etc.

Ability to filter “important” from “crap”

(so can move into new directions/frontiers in biology)

Discover new information and informed by existing

Scientific/ biology way of thinking/process/ research

How/who decides: what content “disappears”

Beliefs

Fundamentalism

- Potential “challenges” for teaching
- Fences limiting discussion
- Separation of content/learning from beliefs

Inherited

Content culture

Cannot be held by one person

Expansion of biology necessarily requires specialisation

Communication skills

Ethics – embedded within content/context

Internationalisation