

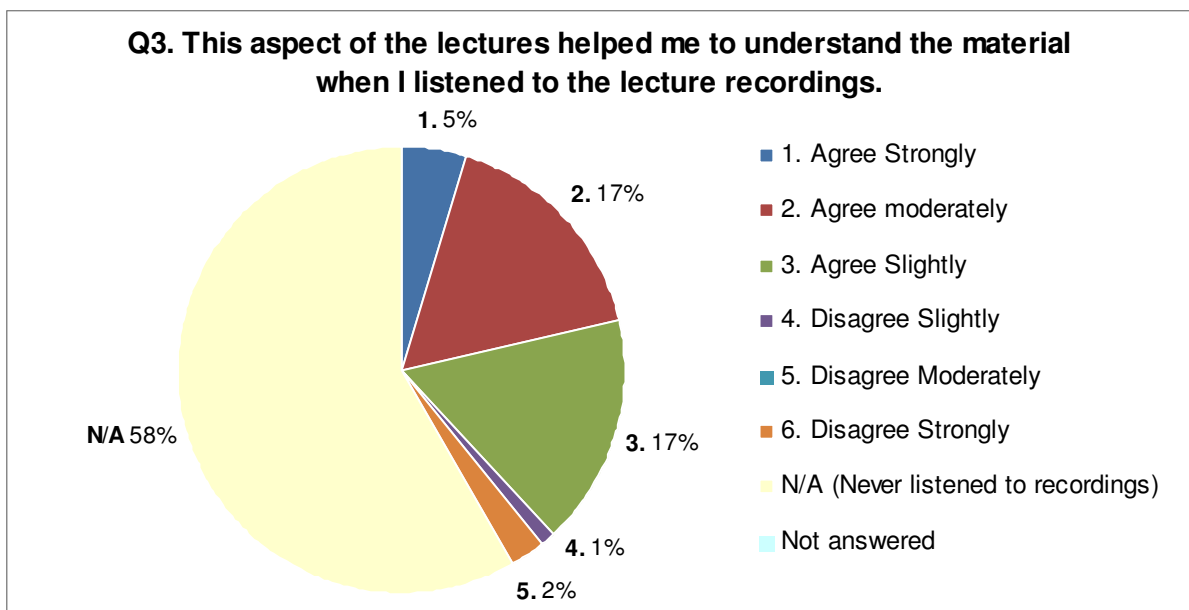
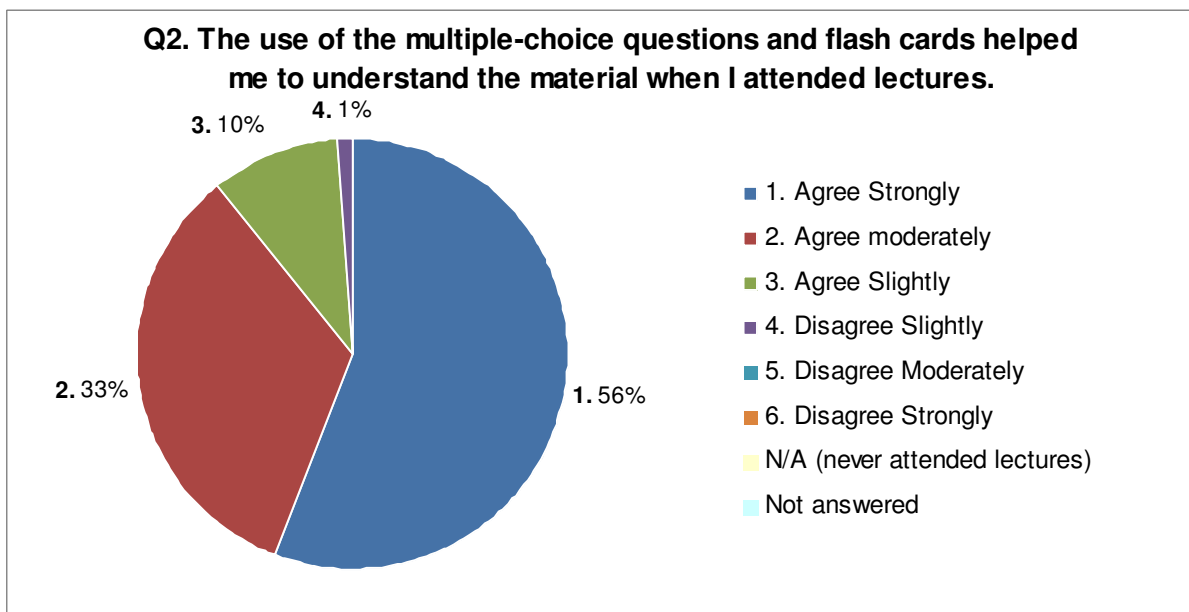
Life, Death and Morality. Monash University, School of Philosophy and Bioethics. Semester 1, 2007.

Description

Peer Instruction was used in the lectures for a first year introductory ethics course, *Life, Death and Morality*. Approximately 2-4 questions were used per lecture. 84 students completed the questionnaire, representing 43% of the total enrolment of 195.

Results

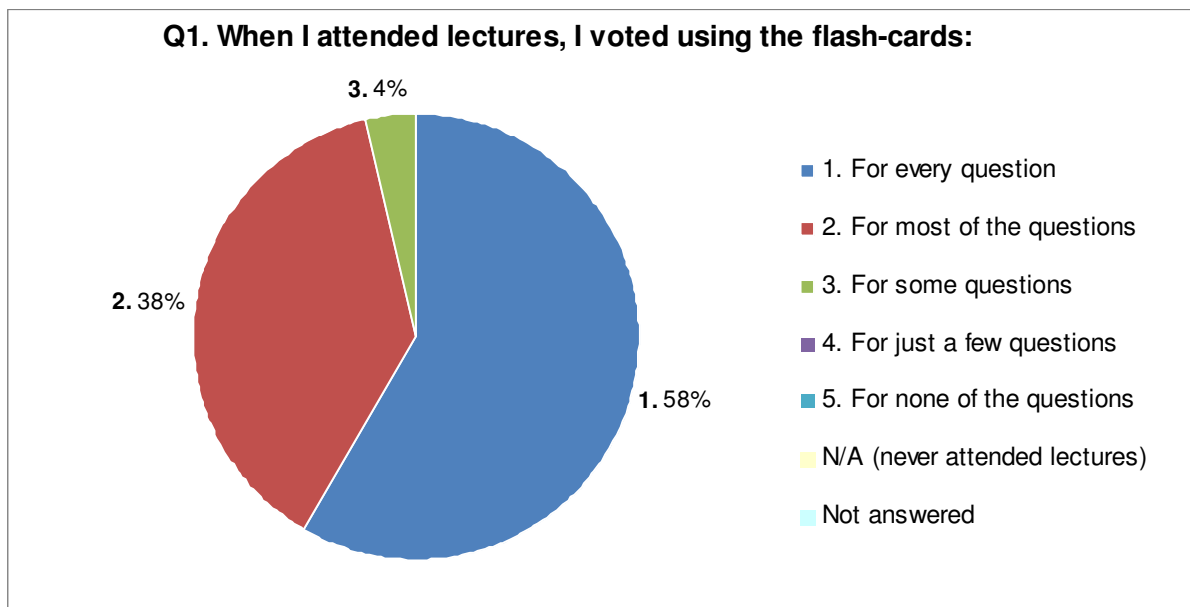
Effect on understanding of lecture material



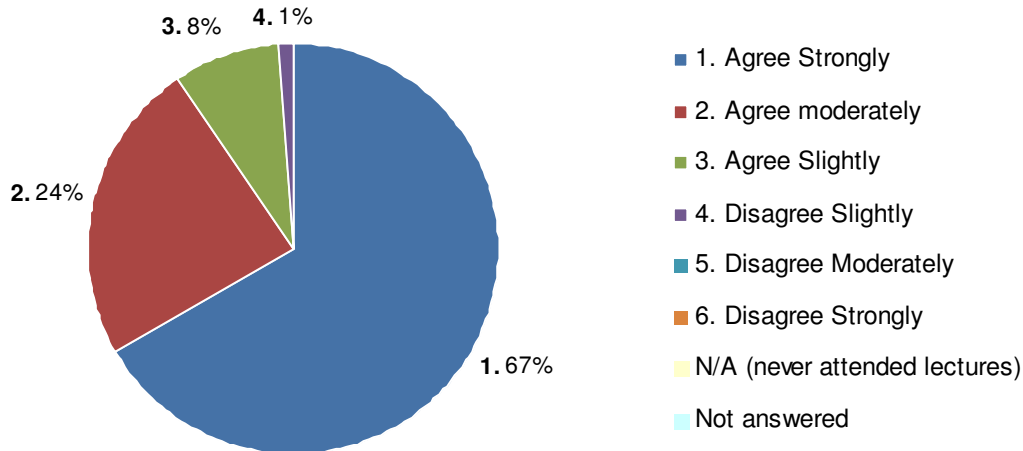
Student comments

- Gave you a better understanding of the concept involved because discrete differences in each of the options made you think carefully about which was the correct answer.
- increased understanding
- They made the lectures far more engaging and they helped me to discover whether I had actually understood (or just thought I'd understood) what the lecture was talking about.
- good learning aid
- being able to understand the information being presented as well as discuss answers with other students to further my understanding or correct my answers.
- I find it easier to grasp the material, as it is then explained in relation to my answer, and I can get a better understanding and comprehension of the material presented.
- I think in this subject they are helpful as there can be many misconceptions.

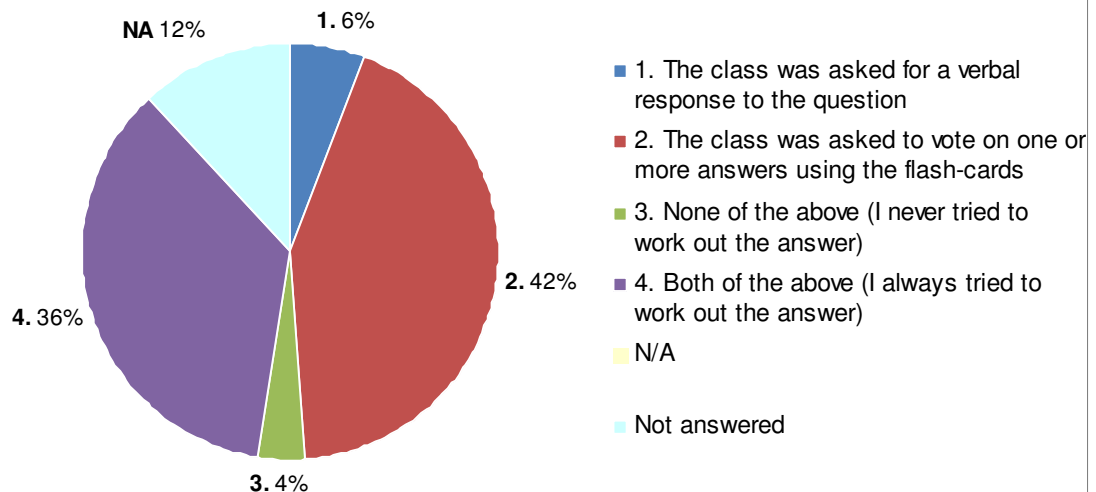
Effect on participation and engagement



Q4. The use of the multiple-choice questions and flash-cards made the lectures more interesting.



Q14. When the lecturer asked a question, I was more likely to try to work out the answer if:



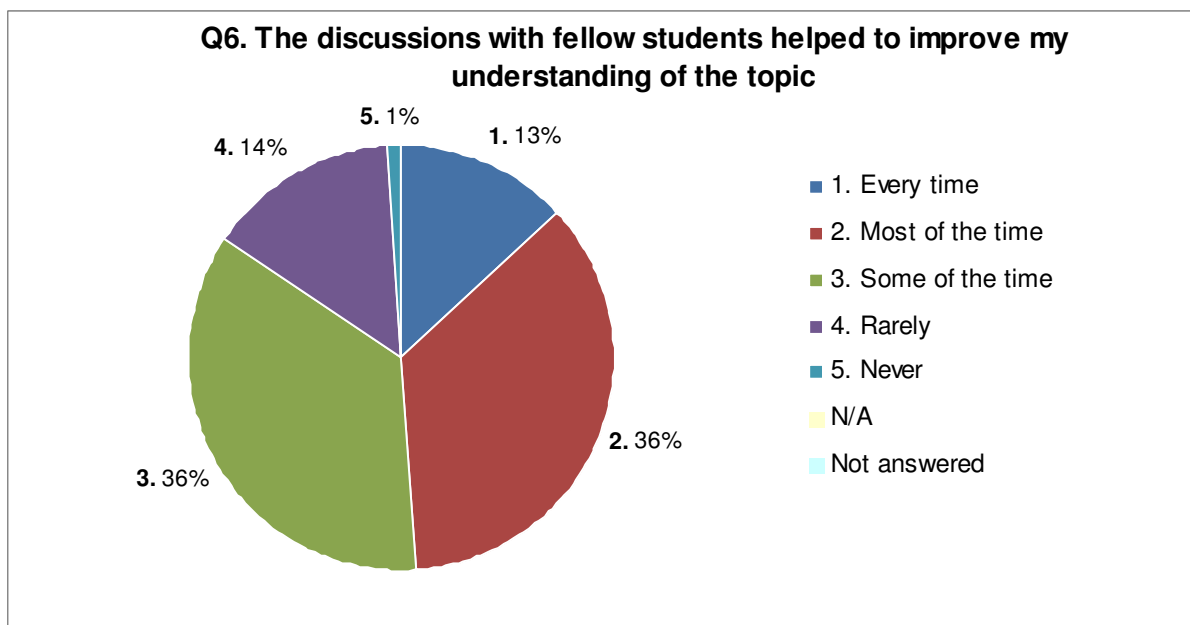
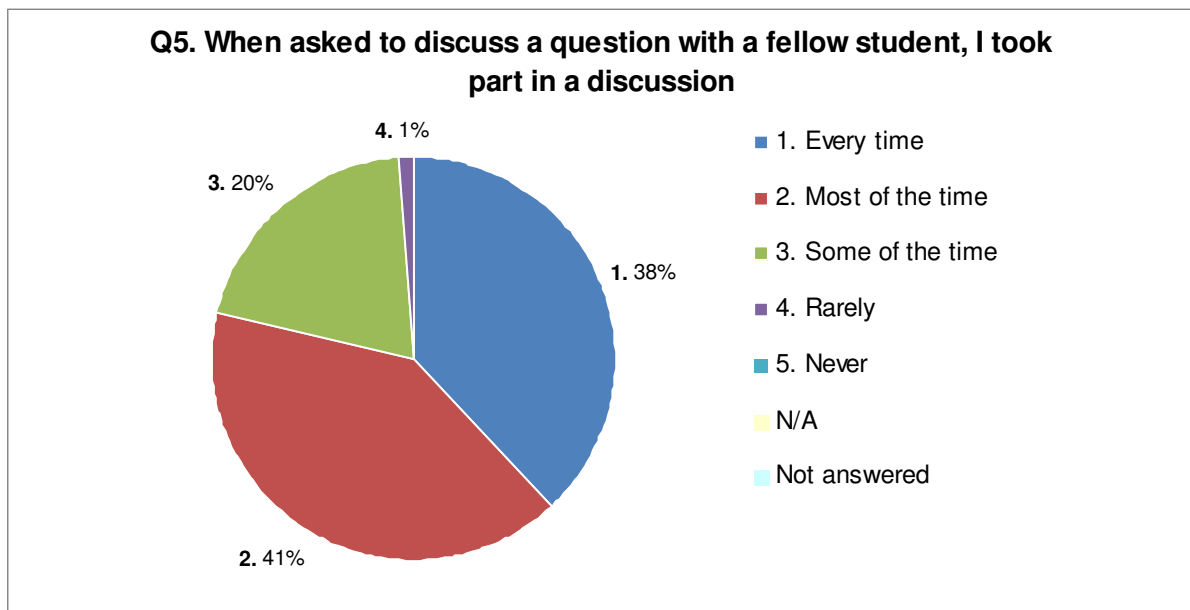
Student comments

- It made the lectures more interesting and interactive. The primary advantage being that I could argue a point with other students. Partly because of this I found philosophy lectures far more engaging and memorable than my other lectures.
- Had me more engaged with the lecture. Provided a challenge and so enabled me to try to understand the materials so as to have the right answers.
- makes you think instead of drift off, and checks that you have the right idea about the concepts.
- You are forced to consider the question at hand and not reflect upon it later in the semester (closer to exams or essays)
- It made things a lot more interesting. Kept me engaged.
- More interaction. Helps to digest the course material. More fun. Avoid sleeps!
- They made the lectures far more engaging and they helped me to discover whether I

had actually understood (or just thought I'd understood) what the lecture was talking about.

- Makes the lectures more of an interactive environment. Allows for discussion and practice for philosophical argument.
- the interactive aspect of the flash cards made the lectures more enjoyable

Effectiveness of discussions

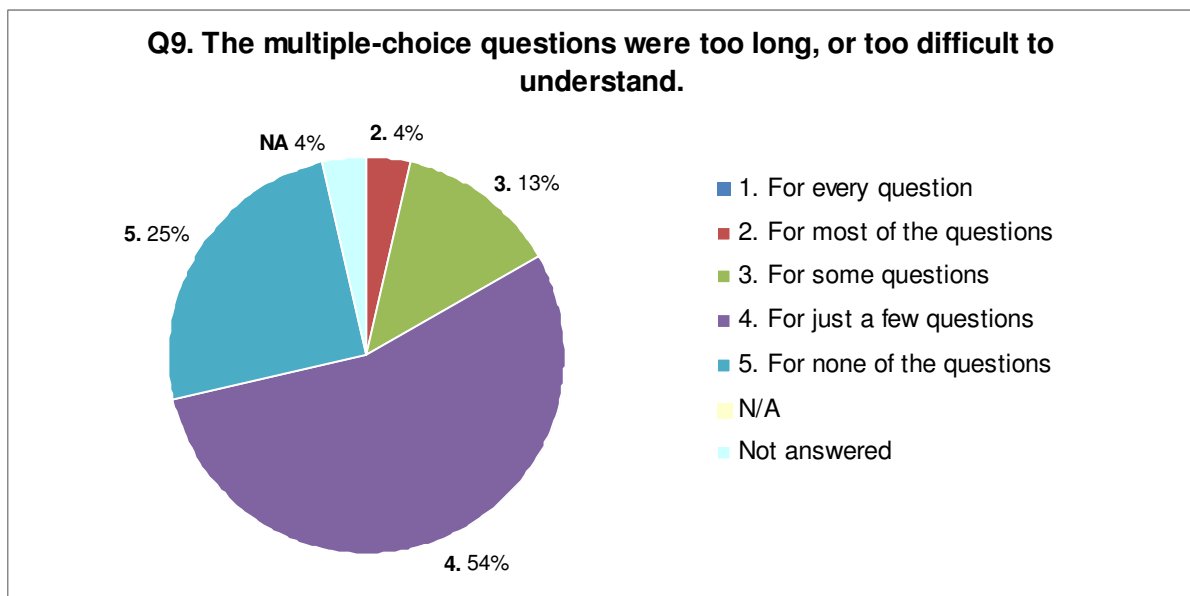
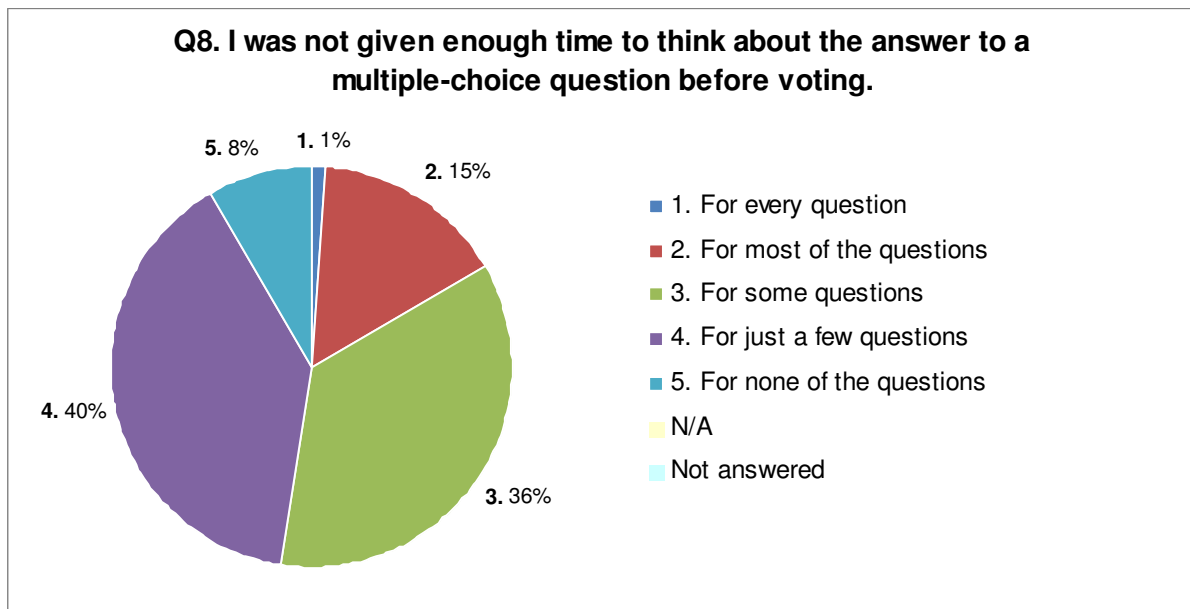


Student comments

- The discussion with other students is by far the most interesting and useful part of the experience. It allows a brief moment to gather one's thoughts and bounce them off another mind.

- the discussion and back and forth really solidified my understanding of topics and theories.
- ... Opportunity for discussion gave me an extra reason to attend lecture (rather than listening online)
- I was able to either consolidate my knowledge by discussing with a friend, or was taught by a friend why my answer was wrong and what the right one was - something a lecturer doesn't always have time to do.
- I did not find the discussion part with the person sitting next to you very effective, because usually neither had a real logical reason to back up their answer, and this could lead us in the wrong direction for later because you start to believe them and then they end up being wrong anyway.
- I found myself explaining more to others, than being explained to.

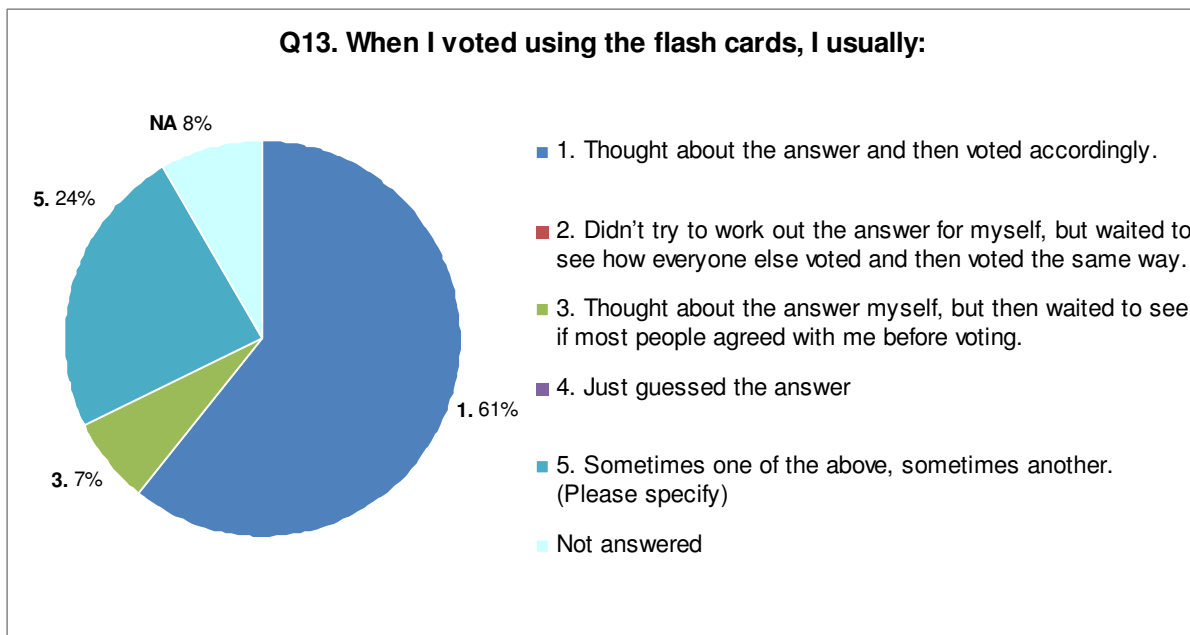
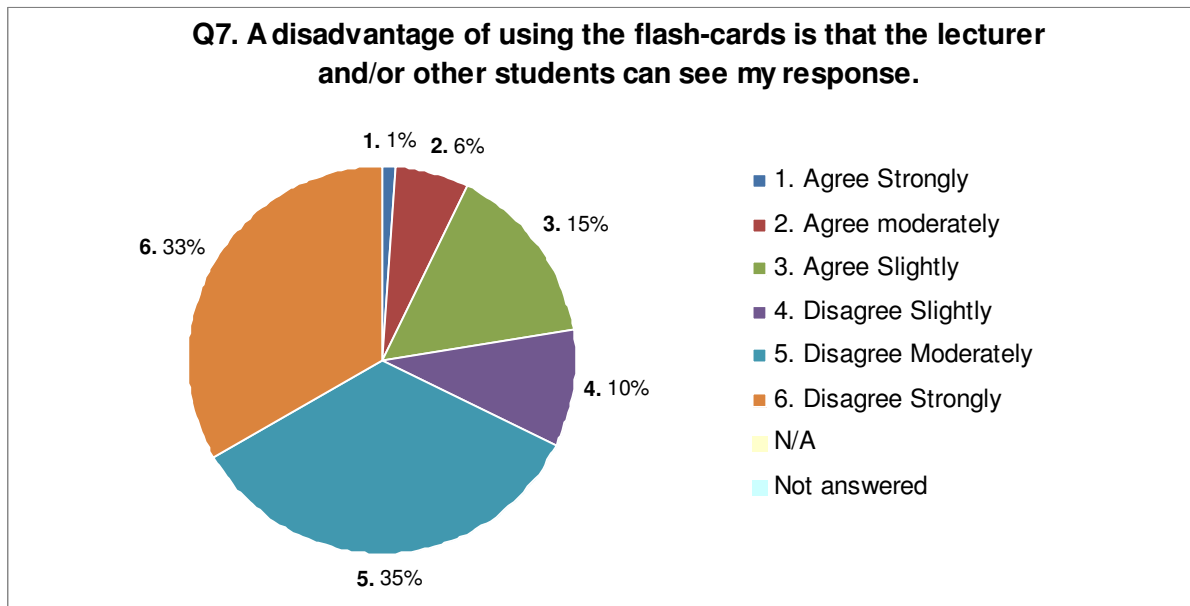
Problems with questions



Student comments

- the questions often were worded in a way that required some thought to establish what they were asking. so sometimes there wasn't enough time to decide on the correct response
- Sometimes not enough time to think about your answer
- can introduce confusion that did not exist before the questions was presented (when question was obscure)

Voting mechanism



Q13. When I voted using the flash cards, I usually:

1. Thought about the answer and then voted accordingly.	61%
2. Didn't try to work out the answer for myself, but waited to see how everyone else voted and then voted the same way.	0
3. Thought about the answer myself, but then waited to see if most people agreed with me before voting.	7%
4. Just guessed the answer.	0
5. Sometimes one of the above, sometimes another:	24%
1 and 3	8%
1 and 4	11%
1, 3 and 4	1%
1, 2 and 3	2%
1, 2, 3 and 4	1%
6. Other. Please specify:	0
Not answered	8%

Student comments

- If I didn't know the answer I would just put up the card, from what I could see, the majority had put up.
- When I didn't know the answer I tended to consider the answers of others rather than think more carefully and work it out for myself if there was a limited amount of time.
- Continue to develop this idea to remove the element of people who voted with the majority instead of trying to find the answer on their own. Great benefits to be had with this method of lecturing.
- Sometimes felt a bit confronted by obvious lack of knowledge ! The format of getting every one to hold up their cards felt like a bit of a test / competition. Perhaps if you had the option of not using the cards it would alleviate the perceived "pressure to perform" (?)
- **LDM:** Bright colours made me hesitant to answer when I realised my answer was different from others.

Benefits

Q10. What were the benefits (for you) of the multiple-choice questions and flash-cards (if any)?

Number of students who answered: **52** (of 84)

Improved understanding	23 comments
Improved attention	6 comments
Useful feedback	10 comments
Interaction and engagement	17 comments

Sample comments

Improved understanding

- reinforced understanding, forced to apply principles and think literally
- understood material better
- I think in this subject they are helpful as there can be many misconceptions.
- the discussion and back and forth really solidified my understanding of topics and theories
- good learning aid
- ... Helped to understand how theories could be applied to examples.
- I was able to either consolidate my knowledge by discussing with a friend, or was taught by a friend why my answer was wrong and what the right one was - something a lecturer doesn't always have time to do.
- being able to understand the information being presented as well as discuss answers with other students to further my understanding or correct my answers

Improved attention

- makes you think instead of drift off, and checks that you have the right idea about the concepts.
- Interaction stopped me from snoozing
- It gave the lecture a short break so that we could concentrate better, as well as being interactive meant that you had to pay attention and follow the lecture.

Useful feedback

- let me know if I was on the right track and understanding the topic or not
- Compelled you to engage with the material. Allowed you to see as a student where you may have gaps in your knowledge Although this could be confronting at times it was an honest way of seeing where you needed to improve your understanding ,do further reading or review the material a few more times. Ultimately that can only be enormously beneficial .
- Seeing that others are as right or wrong as I am, that they think the same as me.
- Gives you an understanding where other students are coming from
- They made the lectures far more engaging and they helped me to discover whether I had actually understood (or just thought I'd understood) what the lecture was talking about.

Interaction and engagement

- It made the lectures more interesting and interactive. The primary advantage being that I could argue a point with other students. Partly because of this I found philosophy lectures far more engaging and memorable than my other lectures.
- The discussion with other students is by far the most interesting and useful part of the experience. It allows a brief moment to gather one's thoughts and bounce them off another mind.
- Had me more engaged with the lecture. Provided a challenge and so enabled me to try to understand the materials so as to have the right answers.
- You are forced to consider the question at hand and not reflect upon it later in the semester (closer to exams or essays)
- Made you think about the concepts immediately

- It made things a lot more interesting. Kept me engaged.

Disadvantages

Q11. What were the disadvantages (for you) of the multiple-choice questions and flash-cards (if any)?

Number of students who answered: **42** (of 84)

No disadvantages	16 comments
Not enough time given to think	10 comments
Too easy to vote with the majority	2 comments
Discussions with peers not useful	4 comments
Embarrassed when answered incorrectly	3 comments
Problems with questions	2 comments
Other	5 comments

Sample comments

Not enough time given to think

- Sometimes there was not enough time to think.
- with long questions, sometimes not enough time to think and give an answer.
- the questions often were worded in a way that required some thought to establish what they were asking. so sometimes there wasn't enough time to decide on the correct response

Too easy to vote with the majority

- If I didn't know the answer I would just put up the card, from what I could see, the majority had put up.

Discussions with peers not useful

- I did not find the discussion part with the person sitting next to you very effective, because usually neither had a real logical reason to back up their answer, and this could lead us in the wrong direction..
- I found myself explaining more to others, than being explained to.
- Discussing with a student near me only helped improve my understanding of a particular topic
- sometimes I wasn't sitting next to/ near somebody so i couldn't discuss my ideas.

Embarrassed when answered incorrectly

- Sometimes felt a bit confronted by obvious lack of knowledge ! The format of getting

every one to hold up their cards felt like a bit of a test / competition. Perhaps if you had the option of not using the cards it would alleviate the perceived "pressure to perform" (?)

- Bright colours made me hesitant to answer when I realised my answer was different from others.

Problems with questions

- can introduce confusion that did not exist before the questions was presented (when question was obscure)

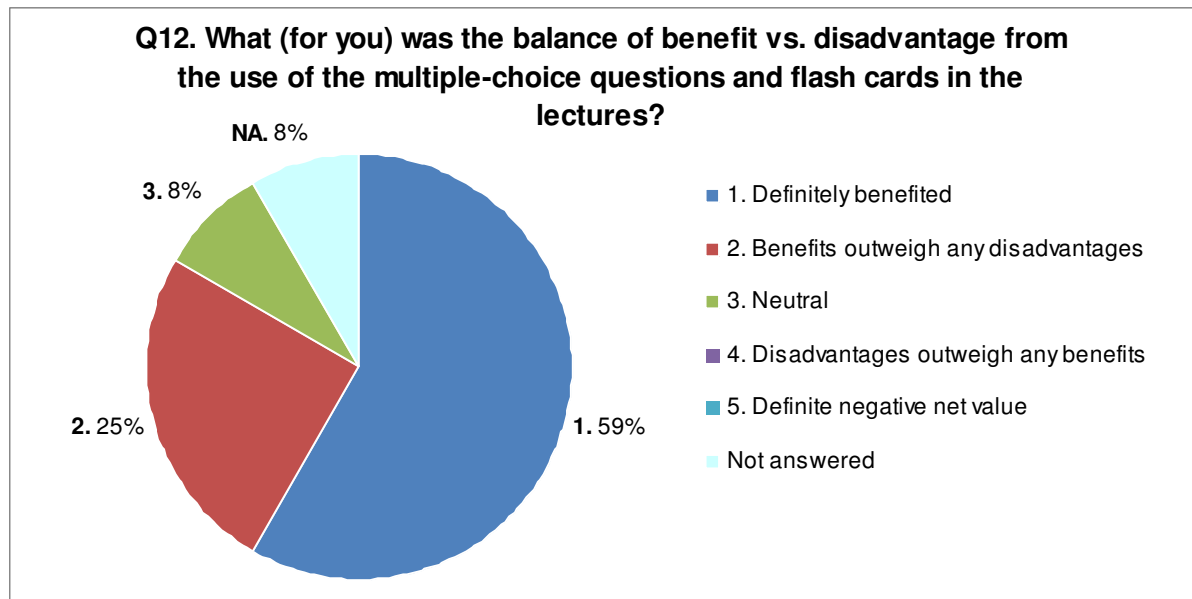
Other

- Difficult to digest why an answer was wrong or right
- Time consuming
- If you are sleepy it is difficult to relax
- Sometimes it generated a response from the students that distracted from the lecture topic.

No disadvantages

- None.
- None that were obvious. I think they are great; the lectures are interactive, and they give a chance for us to think objectively.
- None really
- No disadvantages.

Overall benefit



Other comments

Q15. Any other comments on the use of the multiple-choice questions, flash-cards and discussions:

Number of students who answered: **21** (of 83)

Positive	14 comments
Negative	1 comment
Neutral	6 comments

Sample comments

Positive

- The flash-cards are good because they allow us to communicate with the lecturer more. Sometimes in lectures in other subjects I feel as if I am just having a speech thrown at me and cannot contribute in any way, whereas the cards make me feel as if I am benefiting more from lectures because I contribute and learn more.
- Very innovative teaching method. I would have liked to have had more time for discussion before and after the questions .
- Overall I think the flash cards were great!
- I liked them!
- They are great :)

- The discussions were really beneficial, and the relaxed approach to the lecture allows us to think and feel confident in asking questions.

Neutral

- Instead of having to discuss the multi choice questions with a person next to us PERHAPS (this is only a suggestion) it would be beneficial if the class was open to discuss their own views voluntarily on why they decided on the answer they chose and thus tried to sway others in order to establish a majority vote if the responses were mixed.
- There should be more instances of students being asked to justify their answer.
- Perhaps more vague questions that reveal students personal point of view when it comes to certain issues would be interesting (of course students could veto if they felt uncomfortable stating their beliefs)

Negative

- Discussion just do not seem effective, and flash card should mainly be used for the benefits of the lecturer to see if students are understanding the concepts. Also, it is not the greatest experience when a lecturer points out you specifically because you got the wrong answer, and can cause a feeling of embarrassment and humiliation. Clearly some people understand this subject better than others and they are the ones that most probably enjoy the flash cards, compared to the people that are not quite sure what is going on, As a student who sits in the lecture, it is obvious that a lot of people wait for others to hold up their cards and then hold up theirs which is the majority so as they wont feel singled out of basically an 'idiot'. I have also heard people say that that is the reason why they prefer to sit at the back so can look at others decision in front of them. As you can tell I am not a huge fan in this exercise. Listening to people questioning the lecturer is of more interest and beneficial.
