

We often want our students to actively process, evaluate, synthesise and apply information so they can understand what they are learning and make thoughtful and creative products and judgements. But they can also resist thinking. “Just tell us the answer,” they complain.

What we need is thinking treasure that is alluring enough to engage their thinking and complex enough to require it. Yet finding something appropriate for our students can be difficult and time-consuming. And helping them to keep on track as they hunt for this treasure can be even more difficult.

The following is a thinking treasure that your students will love to explore, and a series of strategies that will make sure their exploration is discerning and productive.

1. Warm up their thinking with some concrete examples related to thinking. Have each of your students share their responses to some of the following:

- Do you think in words or pictures or something else?
- Do you see or hear your thoughts, or something else?
- What are your favourite types of thinking (dreaming, hoping, remembering, believing, knowing, imagining, wondering, solving, wishing, comparing, organising...)?
- What are your least favourite types of thinking?

2. Next, have your students respond to some of the following statements. Encourage them to draw on the examples they just shared:

- Everyone can think

Thinking with rich concepts

Clinton Golding explains how to get students thinking about thinking



- Your thoughts are completely your own
- Action is more important than thought
- Have them respond in one of these four ways.
These will help to keep their exploration rigorous:

- I agree because ...
- I disagree because ...
- I partly agree and partly disagree because ...
- I need some more time to think because ...

3. Have an open discussion about some of the following questions. None of them can be properly answered by an experiment, survey, reading a book, doing a calculation, or talking to an expert. Nor are they meant to be completely open questions where one answer is as good as any other and you are invited to be as creative as possible. With these questions, some answers are better than others depending on how well reasoned they are. Thought and discussion is required to get the better answers.

You can choose a few questions for the students to discuss, or even better, ask them to select the questions that they want to explore, because the questions will only engage their thinking if they are treasure that the students want to unearth. Feel free to introduce other questions where it is useful for the students, but do not introduce them just because you like them. Introduce a new question only when exploring it will help the students to further their own line of inquiry.

Thinking about the meaning of concepts

What does it mean 'to think'?
Is there an opposite to 'thinking'? If so, what is it?

Thinking about explanations

What is thinking for?
How do we think?

Thinking about ethics and values

Are some types of thinking better than others?
Are some thoughts better than others?
Are some ways of thinking better than others?
What type of thinking is most important?
What type of thinking is most useful?

Thinking about implications

What if we couldn't think?
What if you couldn't do a particular type of thinking (you choose the type)?
What is the connection between thinking and acting?
What is the connection between thinking and feeling?
What is the connection between thinking, believing and knowing?

Thinking about what we know and how we know

How do you know what you are thinking?
Can you know what someone else is thinking?

Thinking about essence



What are thoughts?
Where are our thoughts?
Where do thoughts come from?
Can you control your thoughts?
Can you share your thoughts?
Can you have the same thought as someone else?
Can you steal thoughts?
Are thoughts real?

Thinking about our experience

What is it like when we are thinking?
How do we experience our thoughts?

When discussing these questions have students think together

These questions should be discussed as a 'community of inquiry.' Students should think together to try to answer the questions in an idea-centred discussion (not teacher or student-centred). Students suggest their ideas and thoughtfully respond to the ideas of other students (rather than to what the teacher says or thinks, or as a mere stream-of-consciousness association). The aim is to help each other to make progress developing better and better answers to the questions rather than to win an argument or merely state their opinion.

The teacher's job is to help students to think through the ideas rather than to get them to any particular answer or position. You should avoid pre-decided outcomes where you lead students to the ideas, interpretations, distinctions and reasons you want them to have. This would direct their thinking and have them play the game 'guess what teacher wants me to think' rather than allowing them to think for themselves. Regardless of whether you agree or disagree with what they are saying, encourage them to explore reasons for and against different ideas before making a reasoned judgement about which is better.

A community of inquiry works best when the students are in a circle where they can see the face of every other student and when they follow a few rules related to respect for the ideas of others:

- One person talks at a time
- Listen to and consider what others say
- Respectful agreement and challenging is required
- Making fun of others, or putting down their ideas, is banned

When discussing these questions ask thought-encouraging questions

Instead of giving your opinion or helping your students to get to the outcomes you think are best, deliberately encourage further thinking by asking thought-encouraging questions. Listen carefully to what your students are saying and then ask one of the following questions to the person who just spoke or to the rest of the class (replacing the ... with the exact words the student used):

REASONING

Why might someone think ...?

What might someone say if they disagreed with ...?

DEPTH

Could you explain some more about ...?

If ... is true, what else would follow?

RELEVANCE & IMPORTANCE

How does ... help us answer our question?

What is the main point you want to make?



CLARITY & PRECISION

What does ... mean?

When discussing these questions have students respond using 'thinking behaviours'

To have our students thinking rigorously about a topic we can encourage them to say the things that good thinkers say (and which poor thinkers rarely say). Encourage your students to respond to what is said using some of the following phrases, as well as agreeing and disagreeing as they did at the start:

DEPTH

To explain that further ...

If ... is true, that tells us ...

REASONING

I think ... because ...

A reason for that is ...

A reason against that is ...

RELEVANCE & IMPORTANCE

The most important point is ...

... helps us because ...

CLARITY & PRECISION

I think ... means ...

Making progress

Often after discussing thinking questions like these, students are left more puzzled than they were before. They are now confronted with multiple viewpoints and probably have more questions than answers. Realising that things are more complex than we first thought is thinking progress, but it is also important that students have a chance to summarise all they have heard and thought into a tentative conclusion (that could be revised with further reflection).

At the end of one or several sessions discussing these questions, have students finish one of the following sentences:

- My conclusion about thinking is ...
- Thinking is like ...

Also you could have students draw a picture of thinking. They should draw a picture of thinking itself, rather than a picture of someone who is thinking. This is similar to how we use a heart to draw love or a blind-folded woman with a sword and scales to illustrate justice. The picture can involve words and symbols and is not intended to be a finished piece of art.

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