REASONINGLAB™

Tools for critical thinking, writing and decision making

Rationale Thinking Pack

Building Critical Thinking Skills in Your Classroom

Rationale™

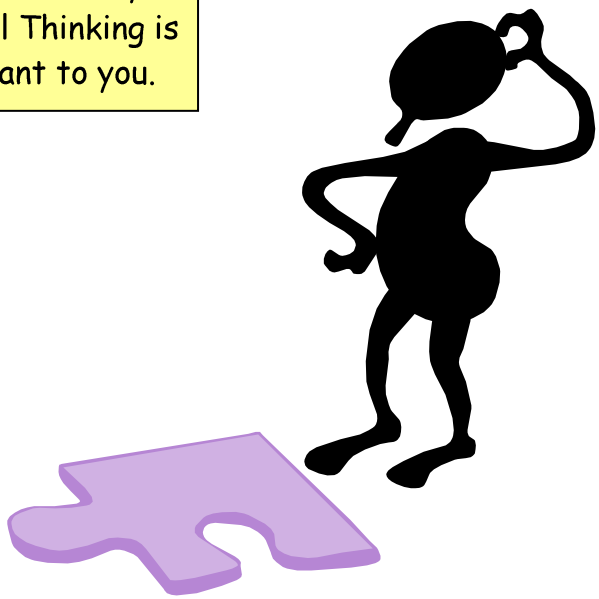
Acknowledgements: Front cover photograph copyrights:
Jupiterimages Corporation 2007

Contents

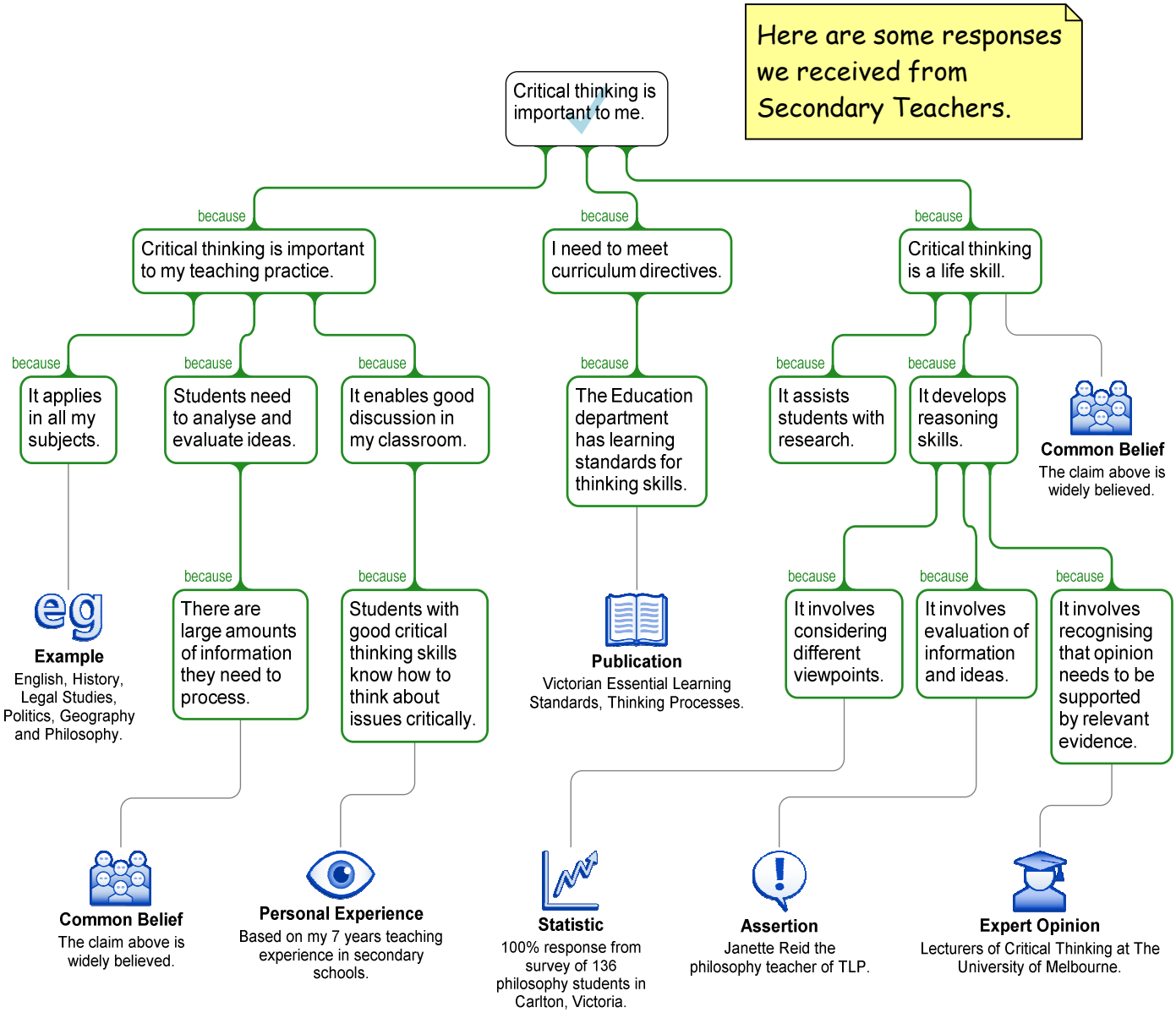
Why Critical Thinking?

Critical Thinking

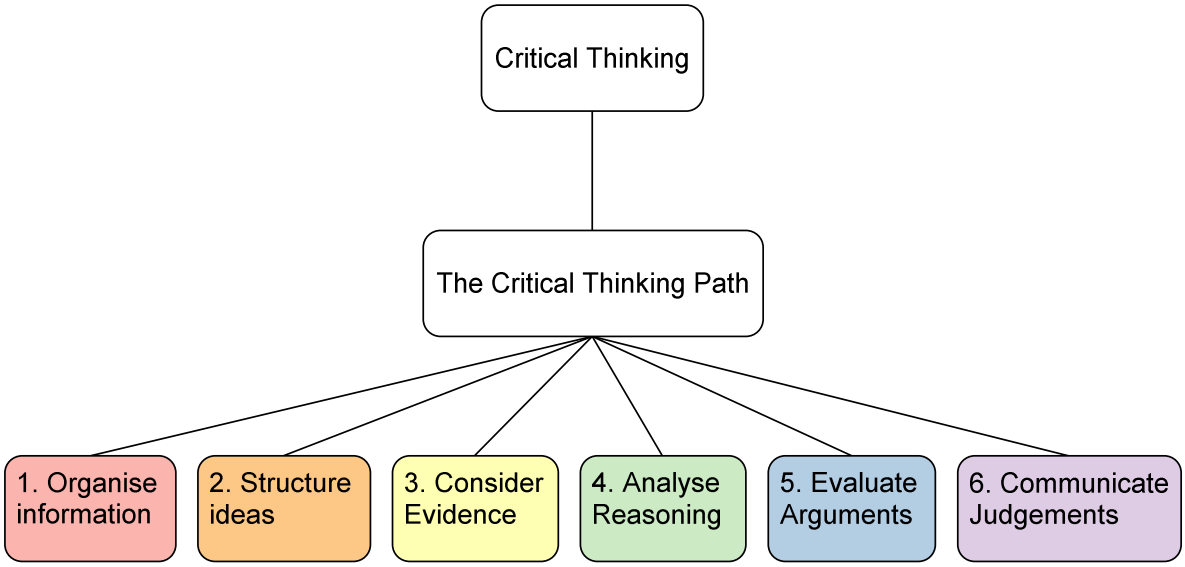
Think about why Critical Thinking is important to you.



Why Critical Thinking?



What is the Critical Thinking Path?



Throughout the path we need to reflect upon our thinking

How?
The typical tool: Prose

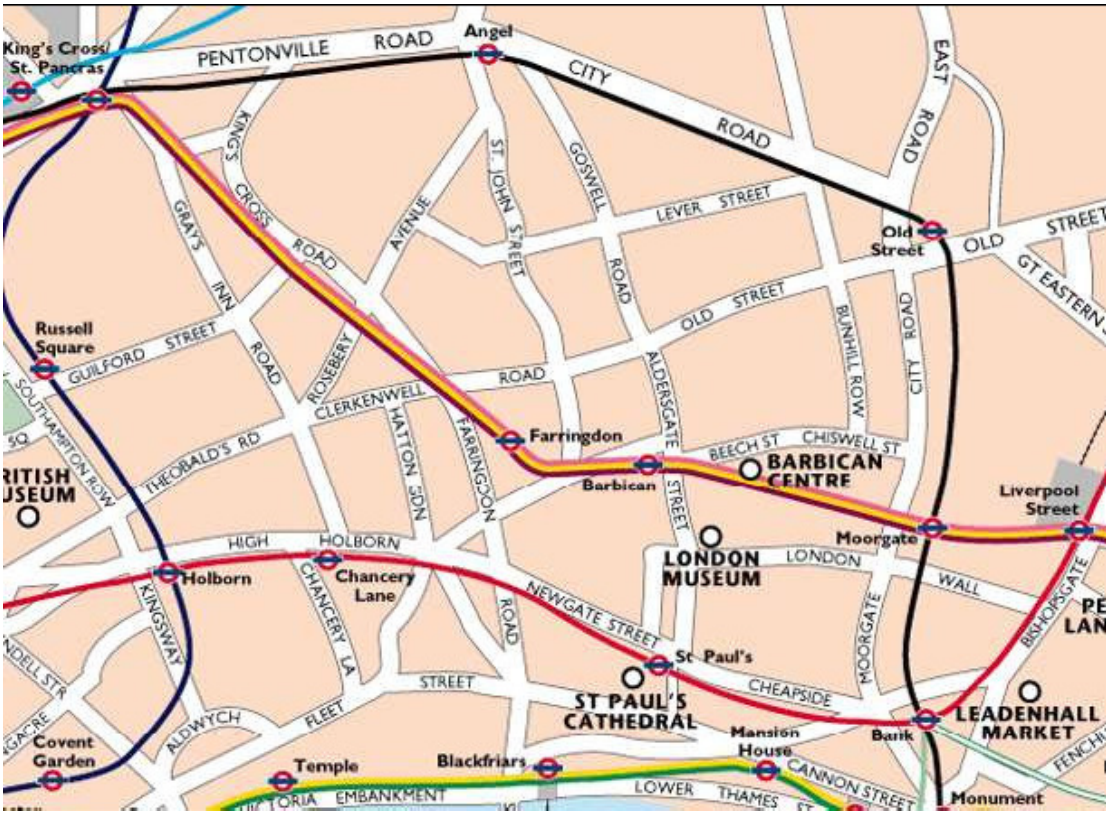
Normally we use prose to show our reasoning.

Pentonville Road runs from east to west, then turns into City Road, which comes to a T-junction where East Road meet Moorgate City Road. Running roughly south from Pentonville Road is first Gray's Inn Road and then King's Cross Road, which turns into Farringdon Road after the intersection with Clerkenwell Road. Where Pentonville Road turns into City Road, St. John's Street runs south. As you go along City Road, you come to Goswell Road (which turns into Aldersgate Street) and Bunhill Row running south. As you go down Gray's Inn Road, the first intersection is with Guildford Street, which continues to a T-junction with King's Cross Road. The next intersection, as you continue down Gray's Inn Road, is with Theobald's Rd, which at that point turns into Clerkenwell Road, though you could veer of NE along Rosebery Avenue which crosses King's Cross Road before it joins St. John's Street near the junction of Pentonville Road and City road. Gray's Inn Road terminates at High Holborn, a major E-W road which, as you go east, turns into Newgate Street and then Cheapside. St. Paul's Cathedral is between Newgate Street and Fleet Street, which runs roughly parallel to Newgate. Southhampton Row goes south intersecting with Guildford Street, Theobald's Road and High Holborn, where it becomes Kingsway, which continues south to a T-junction with the curve of Aldwych, which begins and ends on Fleet Street. From Roseberry Road you can head east along Lever Street, which crosses St. John's Street and Goswell Road before finishing at Bunhill Row where it meets City Road. Heading south down St. John's Road, you cross Lever Street and then Clerkenwell Road. Goswell Road also crosses Lever Street and Clerkenwell Road (which at that point becomes Old Street). Goswell Road becomes Aldersgate Street. Hatton Garden goes between Clerkenwell Road and High Holborn. Streets running south from High Holborn are Kingsway, Chancery Lane and Farringdon Road. Chancery Lane is a short street finishing at Fleet Street. Fleet Street ends at a large intersection just east of St. Paul's. Aldersgate Street continues past London Museum (which is at the corner of Alsdersgate and London Wall) down to Newgate Street. Beech Street runs E from Aldersgate, turning into Chiswell Street before it meets City Road. East Road runs south, past the intersection of City Road, over Old Street and London Wall, where it becomes Moorgate Street.

Task: Have a look at this prose which gives the directions around London. Now work out how to get from St Paul's Cathedral to London Museum.

How?
Maps as Tools

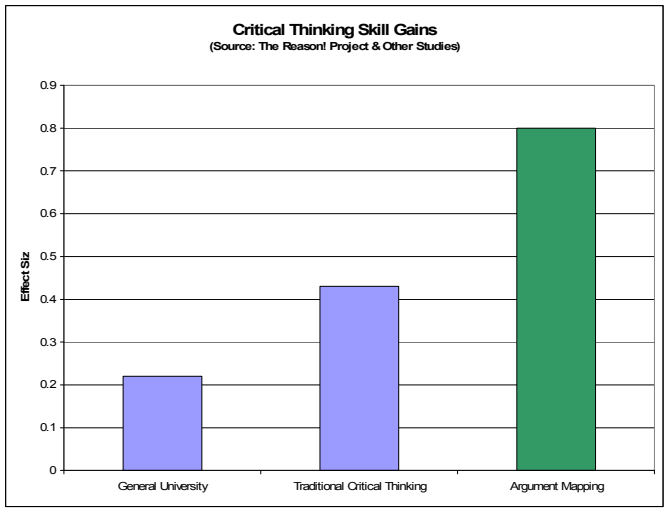
Prose is not always the easiest or clearest way to find the answer.



Task: Now locate the route from St Paul's Cathedral to London Museum. A bit easier ?! The map utilizes colour, shapes, icons and lines to provide visual cues for understanding relationships between places.

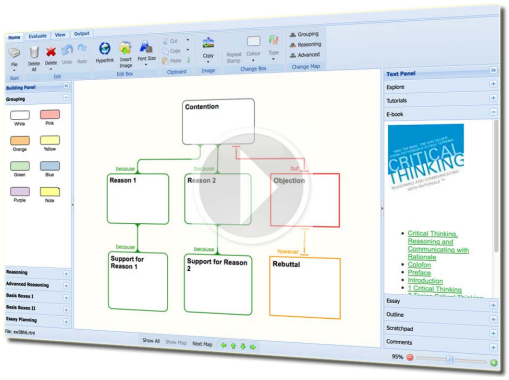
How?
Argument Mapping

Research shows strong gains in critical thinking skills when using argument mapping:



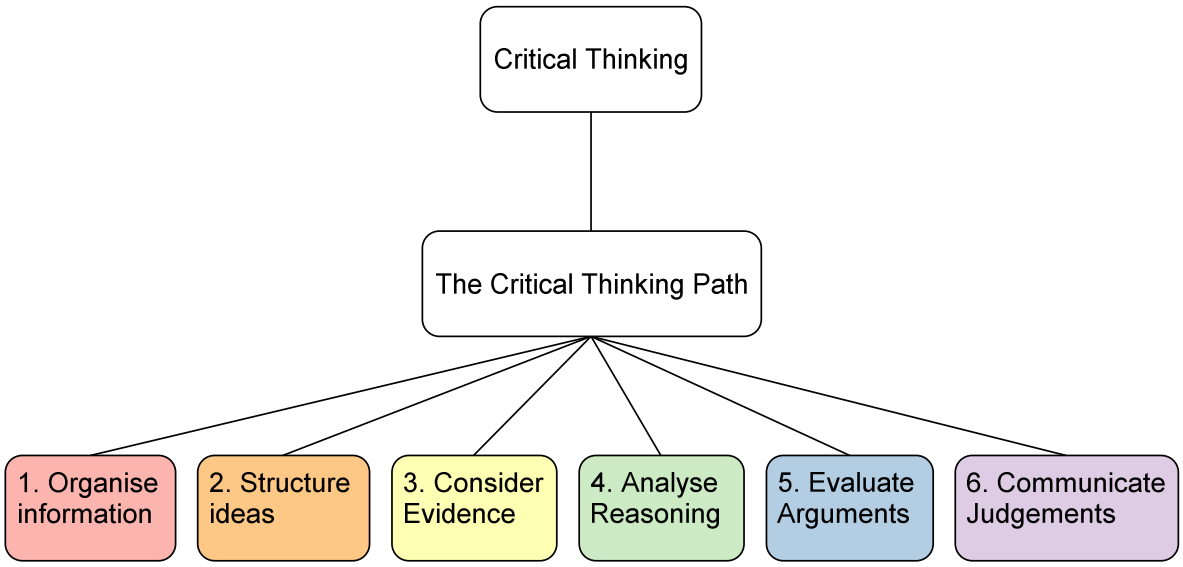
Research undertaken at The University of Melbourne demonstrated that students using **argument mapping improved their critical thinking skills 4 times more than regular university students** and at least 2 times as much as students taking traditional critical thinking courses.

How? Rationale Argument Mapping Program

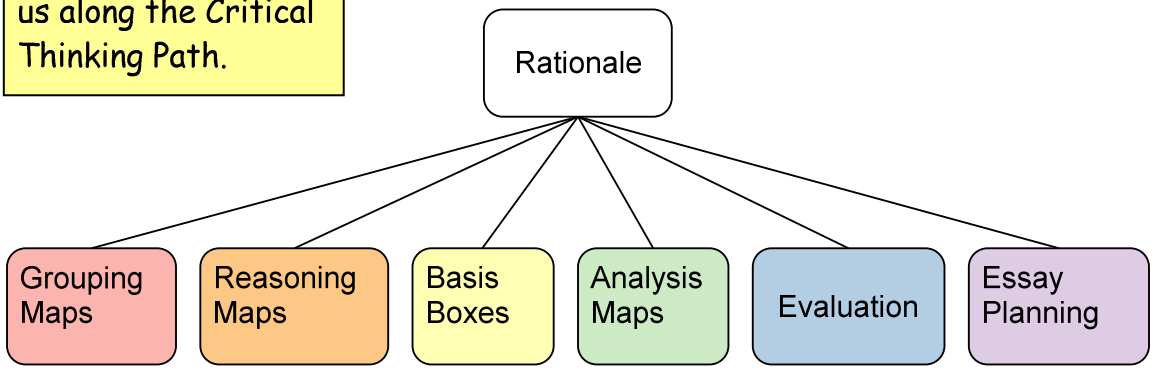


Rationale goes beyond concept-mapping or mind-mapping software. It is a tool to develop critical thinking skills by providing a framework for reasoning, evaluation, analysis and communication.

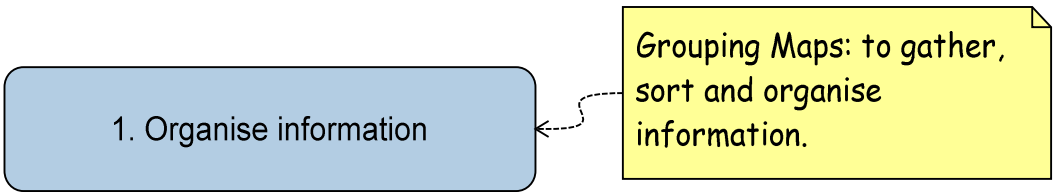
How? Stepping along the Rationale Thinking Path

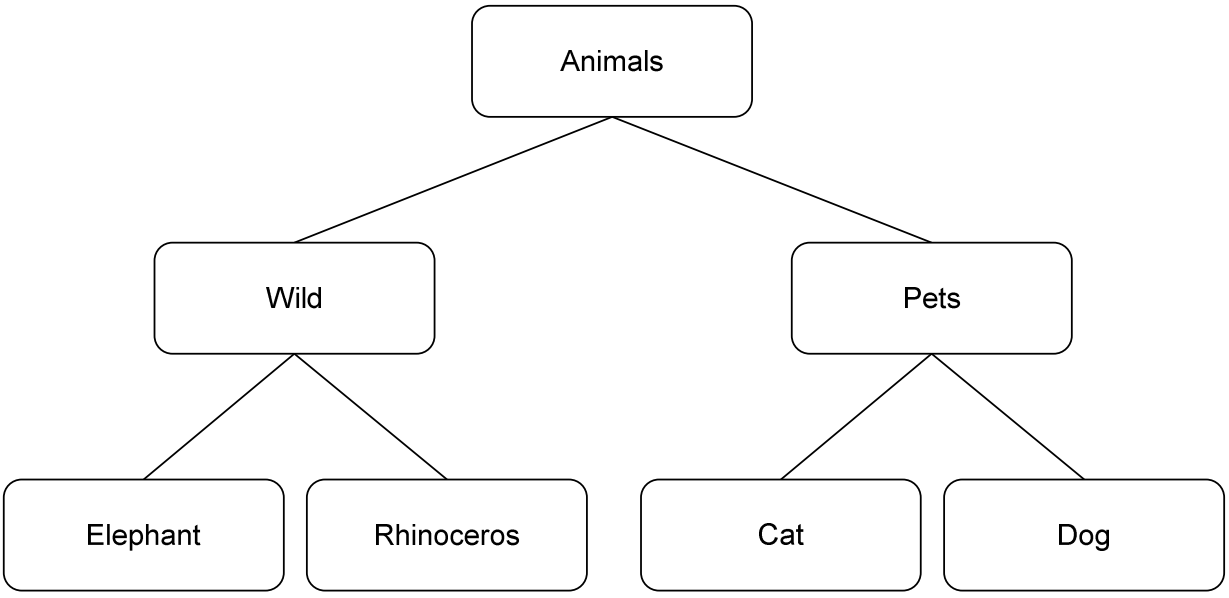


Rationale provides the tools to assist us along the Critical Thinking Path.

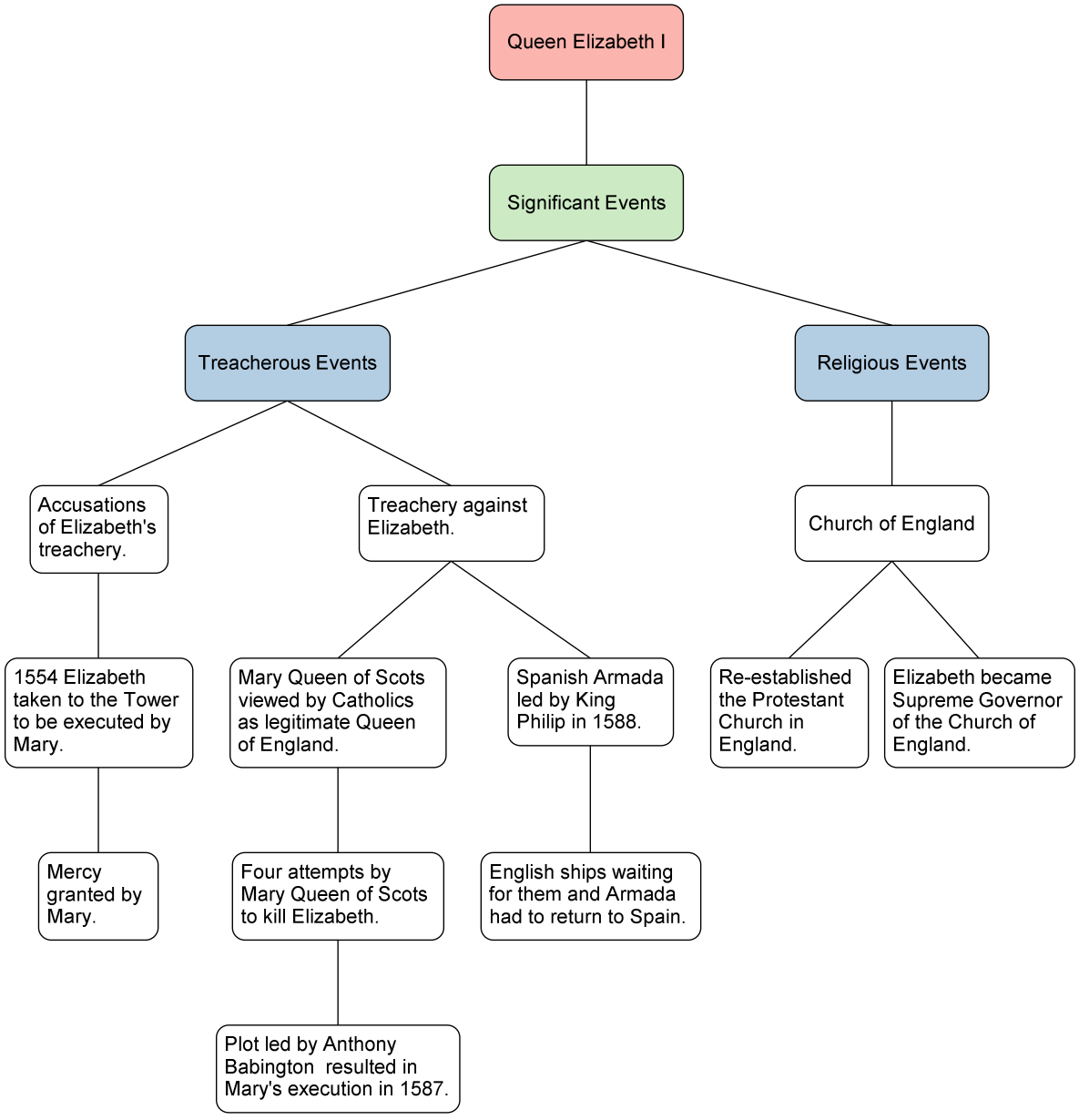


Steps on the Thinking Path: Grouping Maps

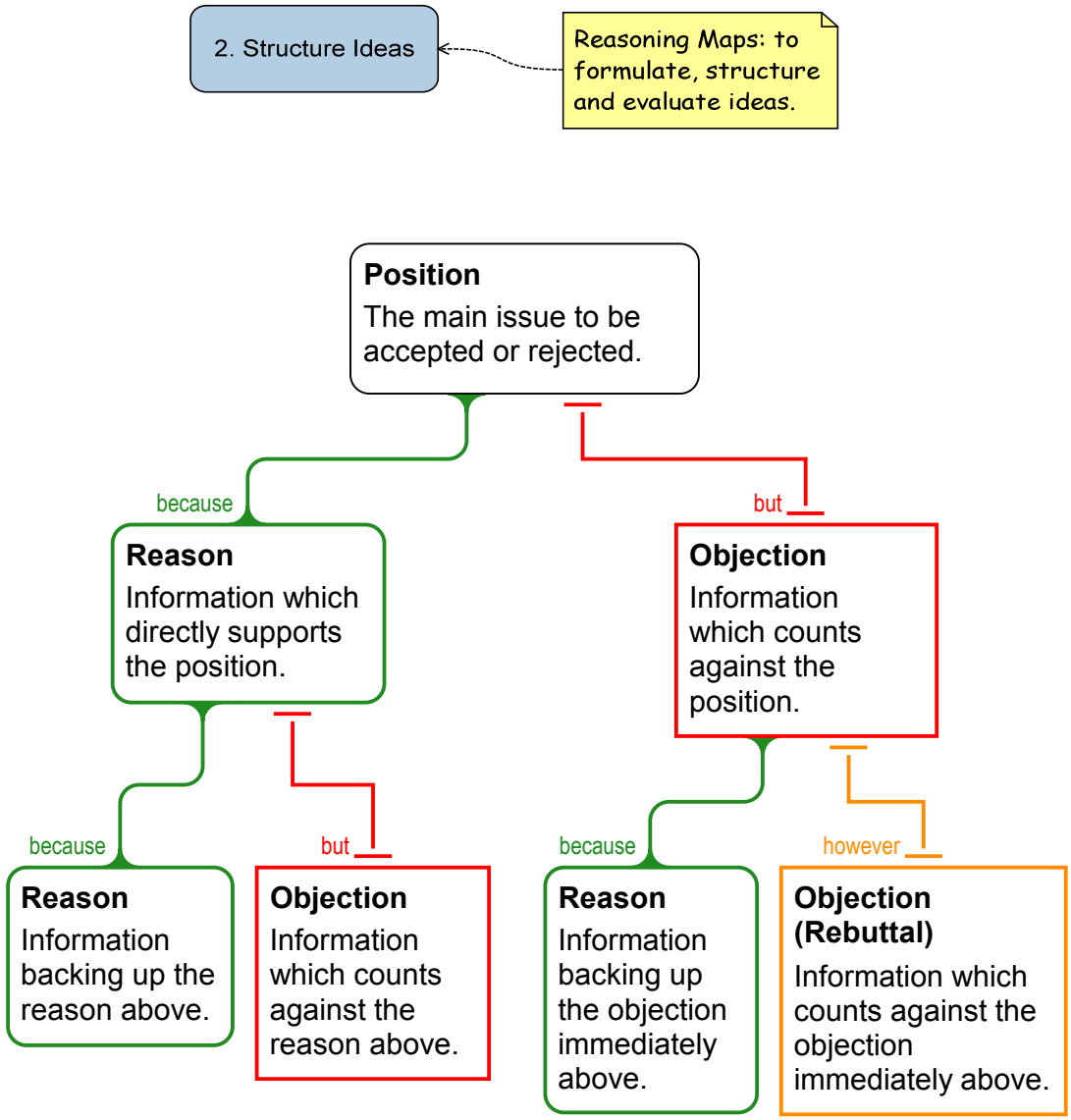




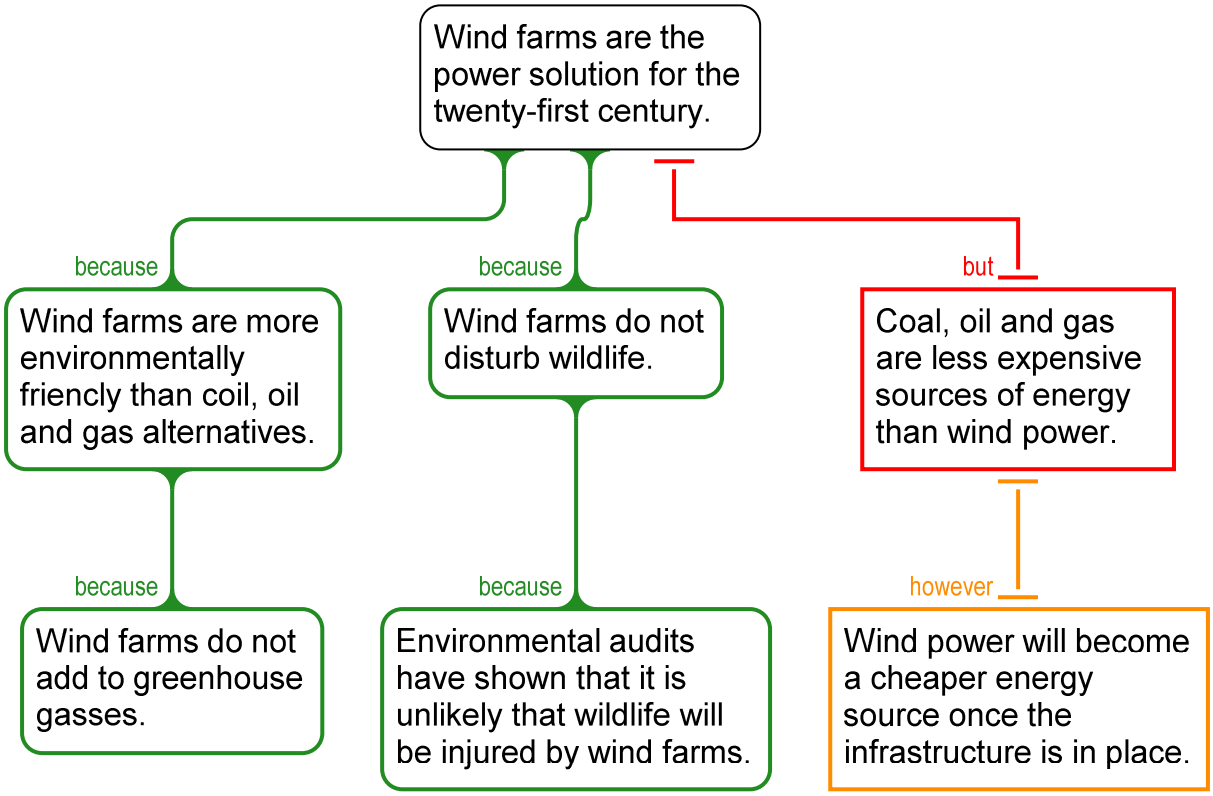
Grouping Maps: Classroom Example



Steps on the Thinking Path: Reasoning Maps

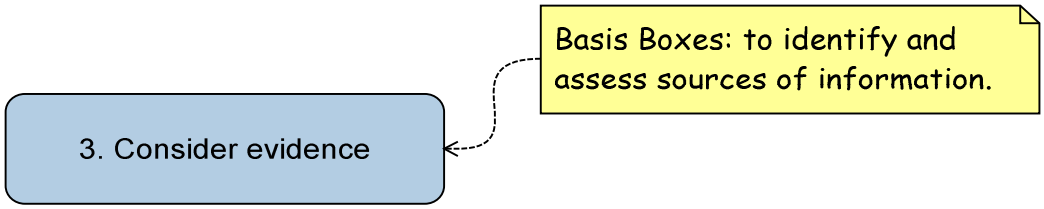


Reasoning Maps: Classroom Example



Rationale

Steps on the Thinking Path: Basis Boxes




Publication


Personal Experience


Expert Opinion


Common Belief

Example


Assertion

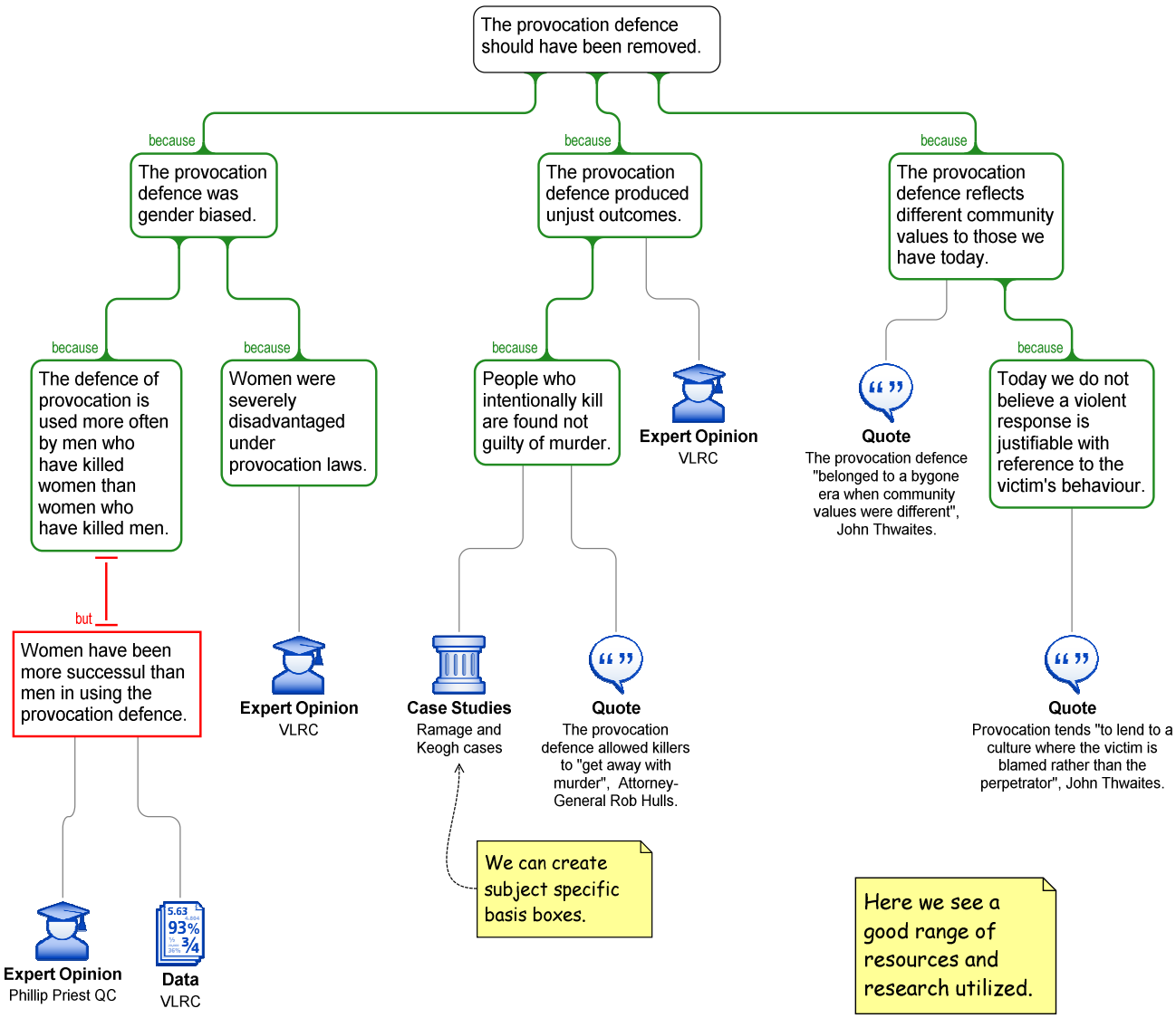

Statistic

By Definition

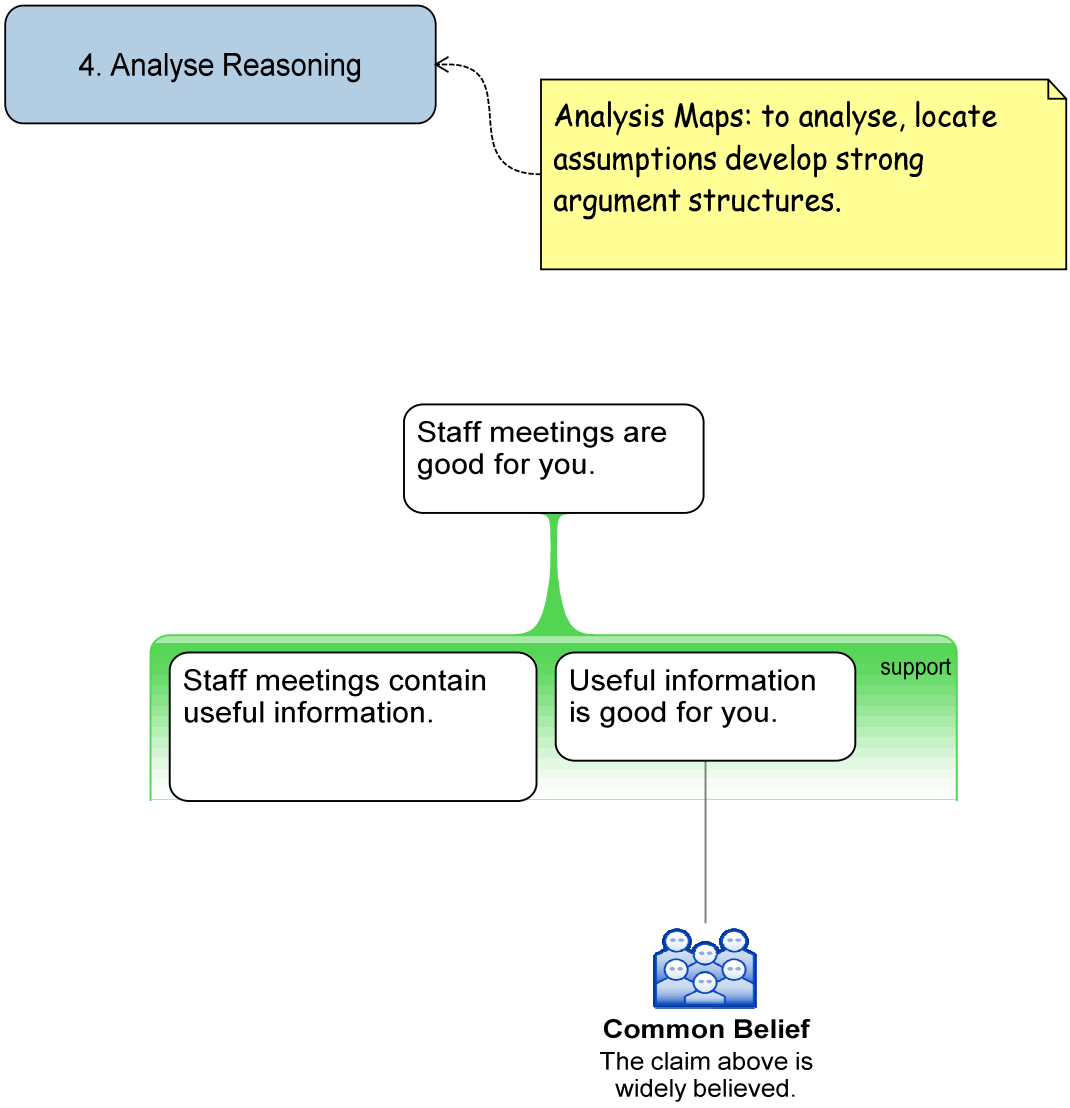
Data


[My Basis]

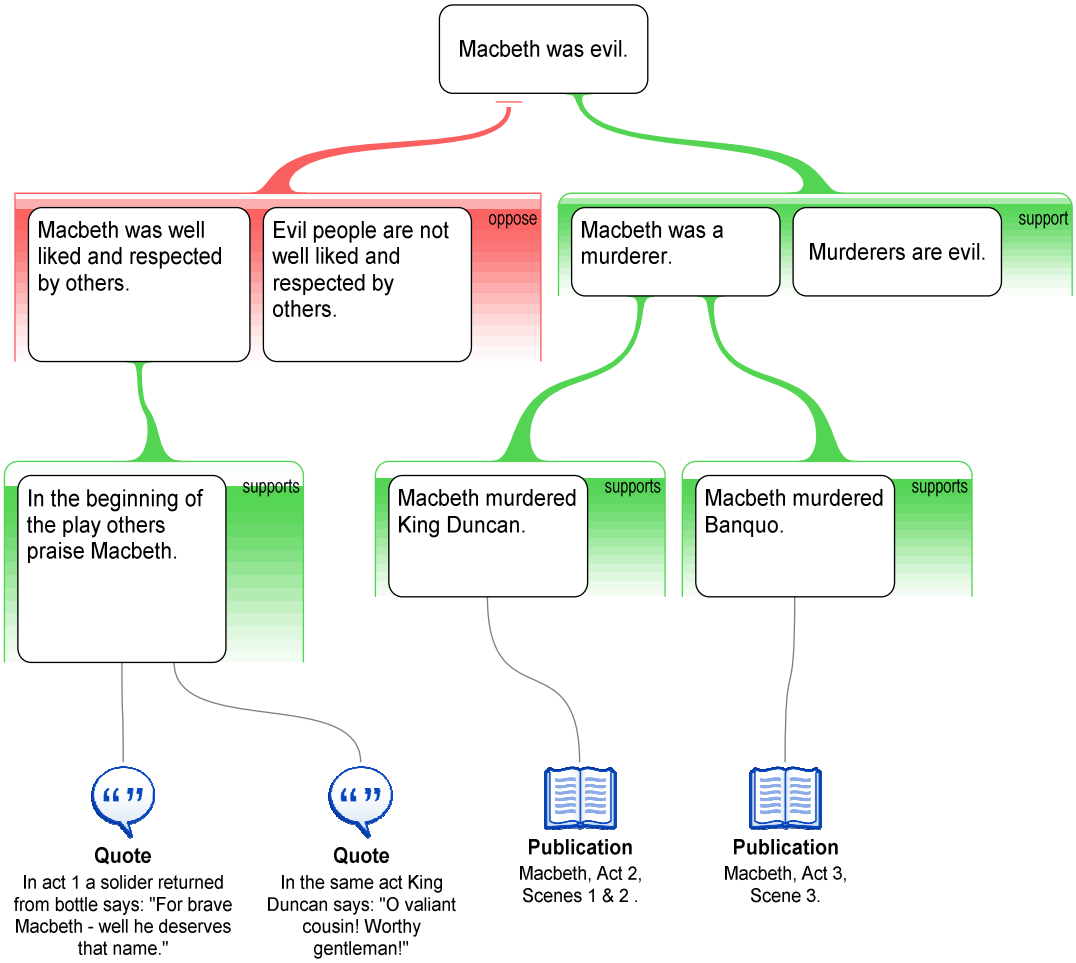
Basis Boxes: Classroom Example



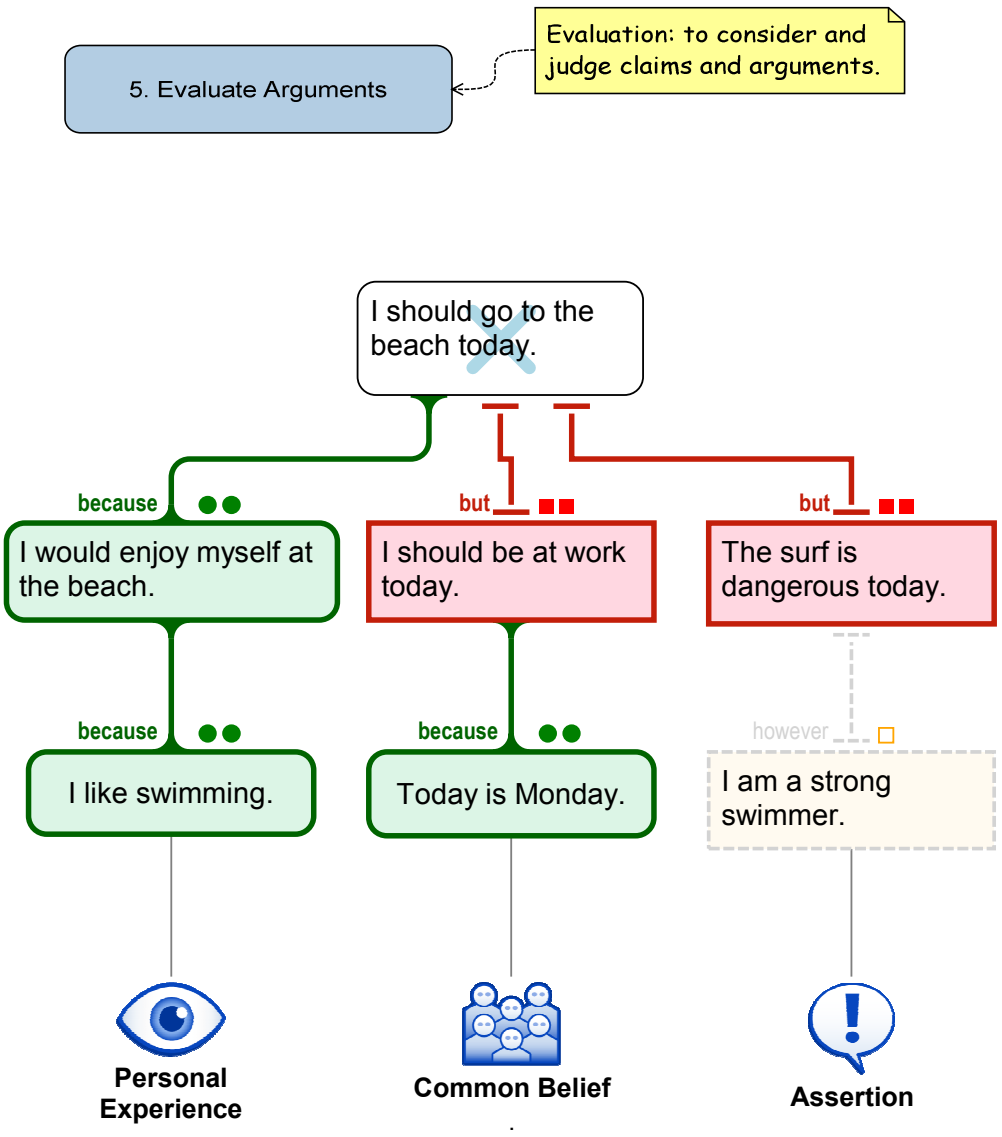
Steps on the Thinking Path: Analysis Maps



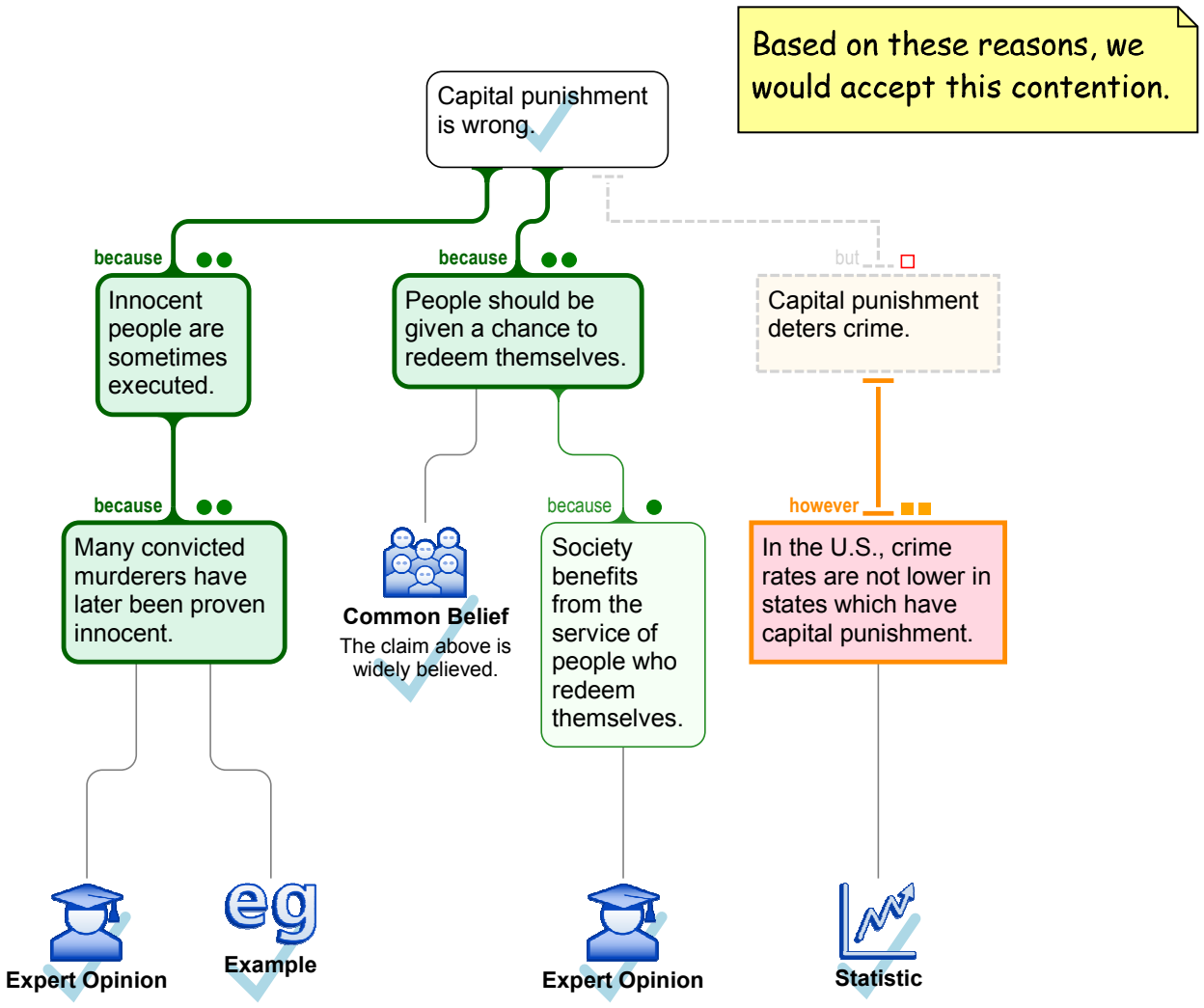
Analysis Maps: Classroom Example



Steps on the Thinking Path: Evaluation

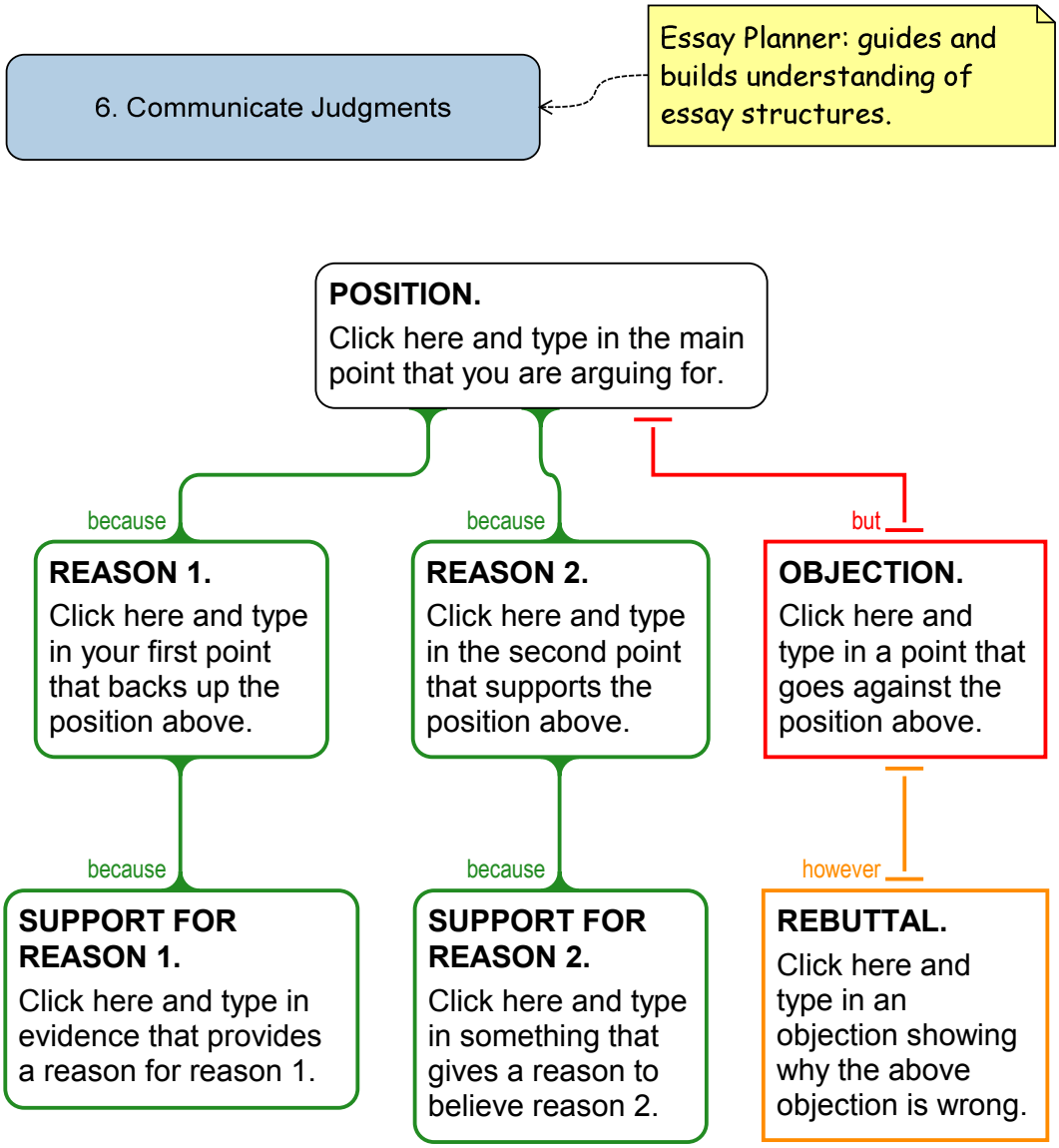


Evaluation: Classroom Example

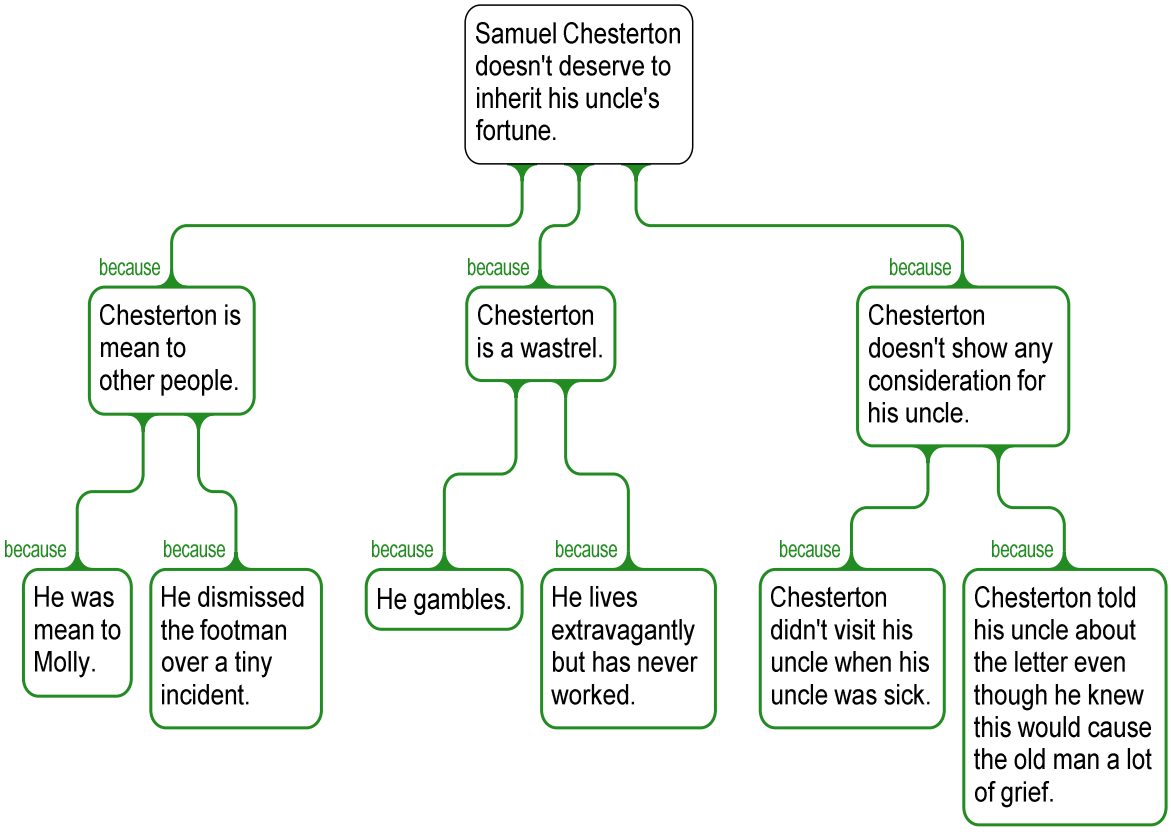


A disagreement about the evaluation of one claim will identify where more reasoning and evidence may be required.

Steps on the Thinking Path: Essay Planning



Essay Planning: Classroom Example



Rationale

What if? What else?

1. *What if I don't have time to create resources?*

Austhink provides resources for using Rationale.

2. *What if I'm not confident with argument mapping?*

Austhink provides training for using Rationale.

3. *What if I have technical or pedagogical questions?*

Austhink provides support for using Rationale.

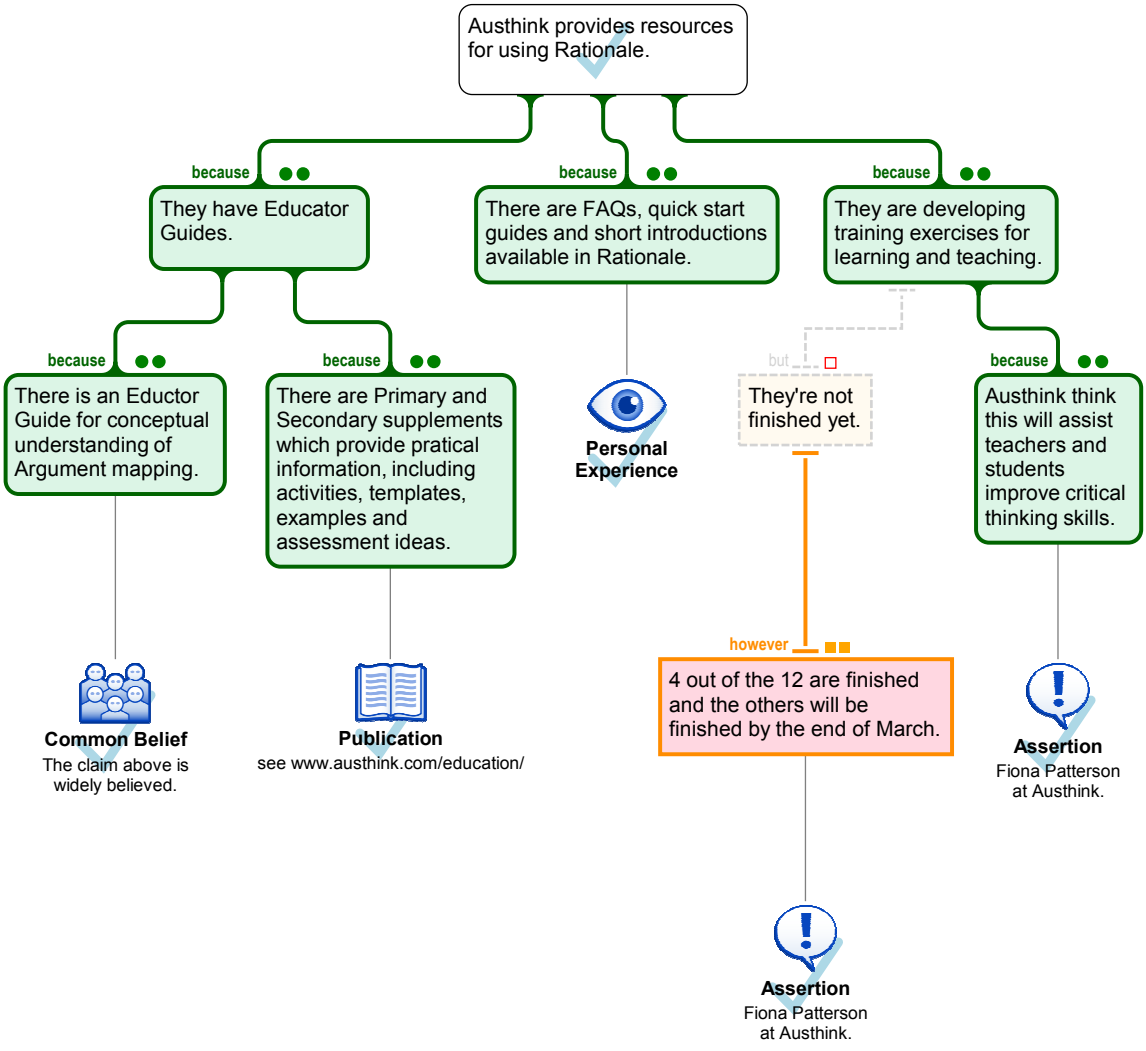
4. *What if I've never heard of Austhink?*

Austhink provides the expertise for teaching critical thinking.

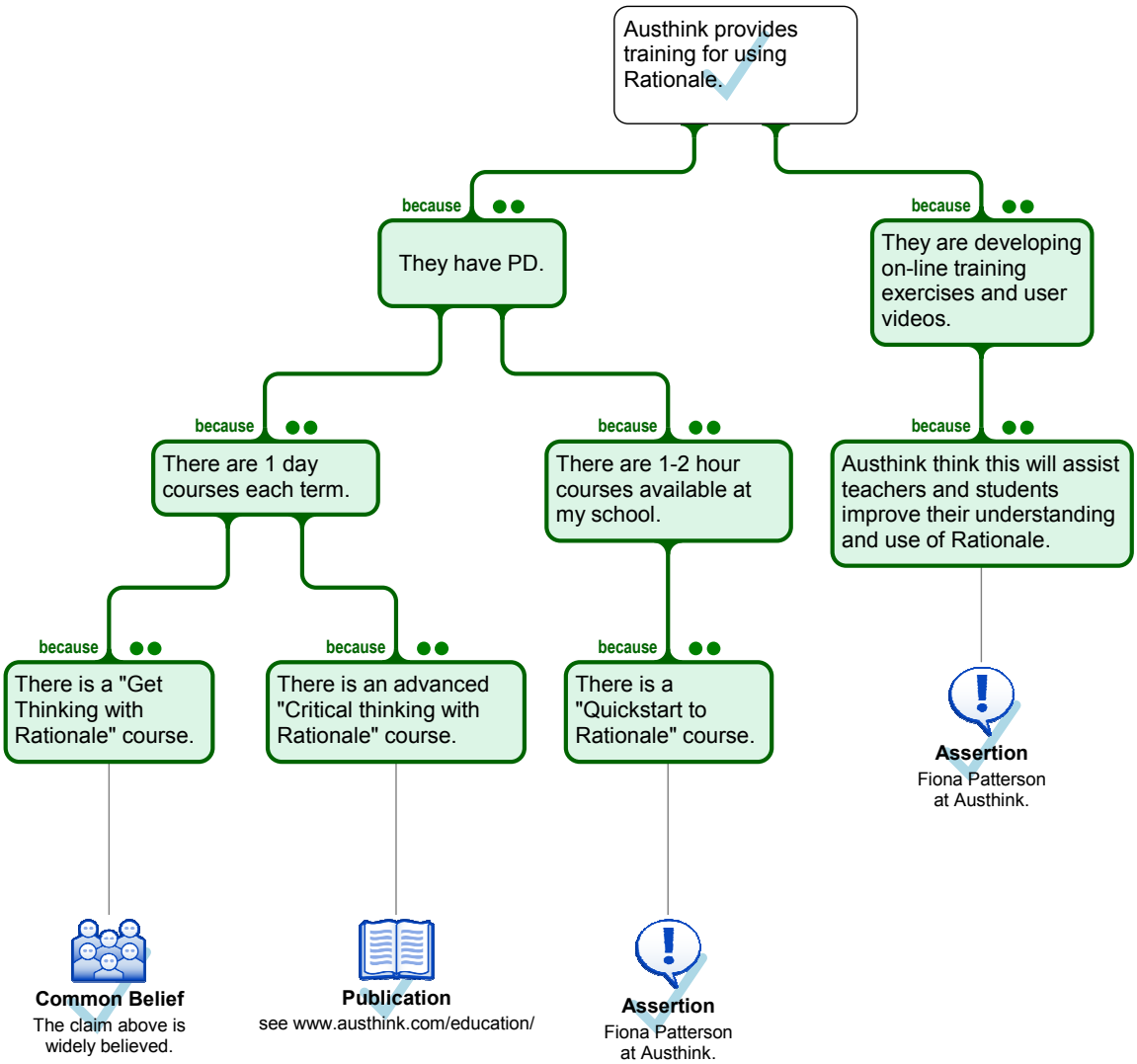
5. *What if I'm concerned about my budget?*

Austhink provides affordable critical thinking software.

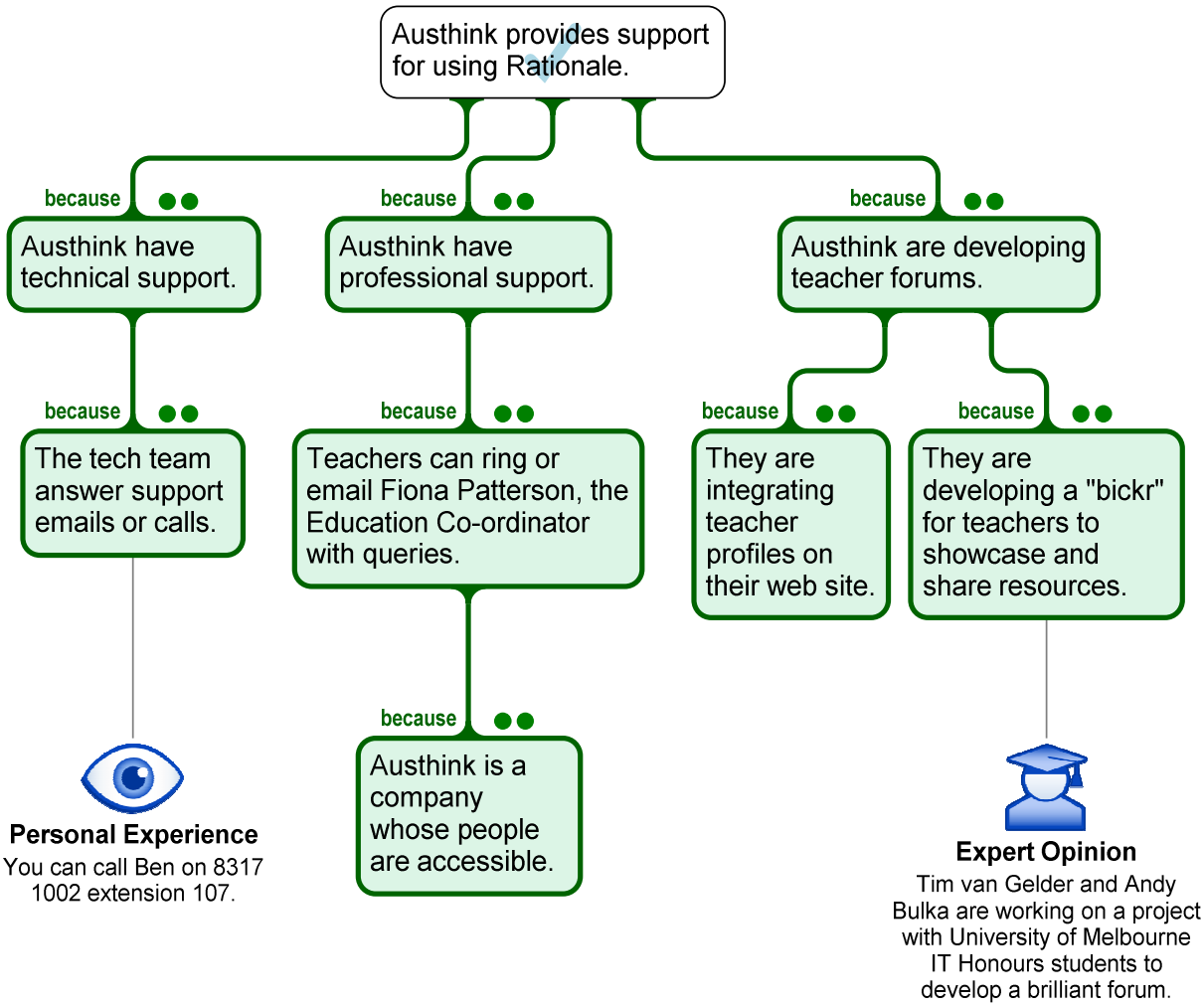
What if? What else?
Austhink's Resources



What if? What else?
Austhink's Training



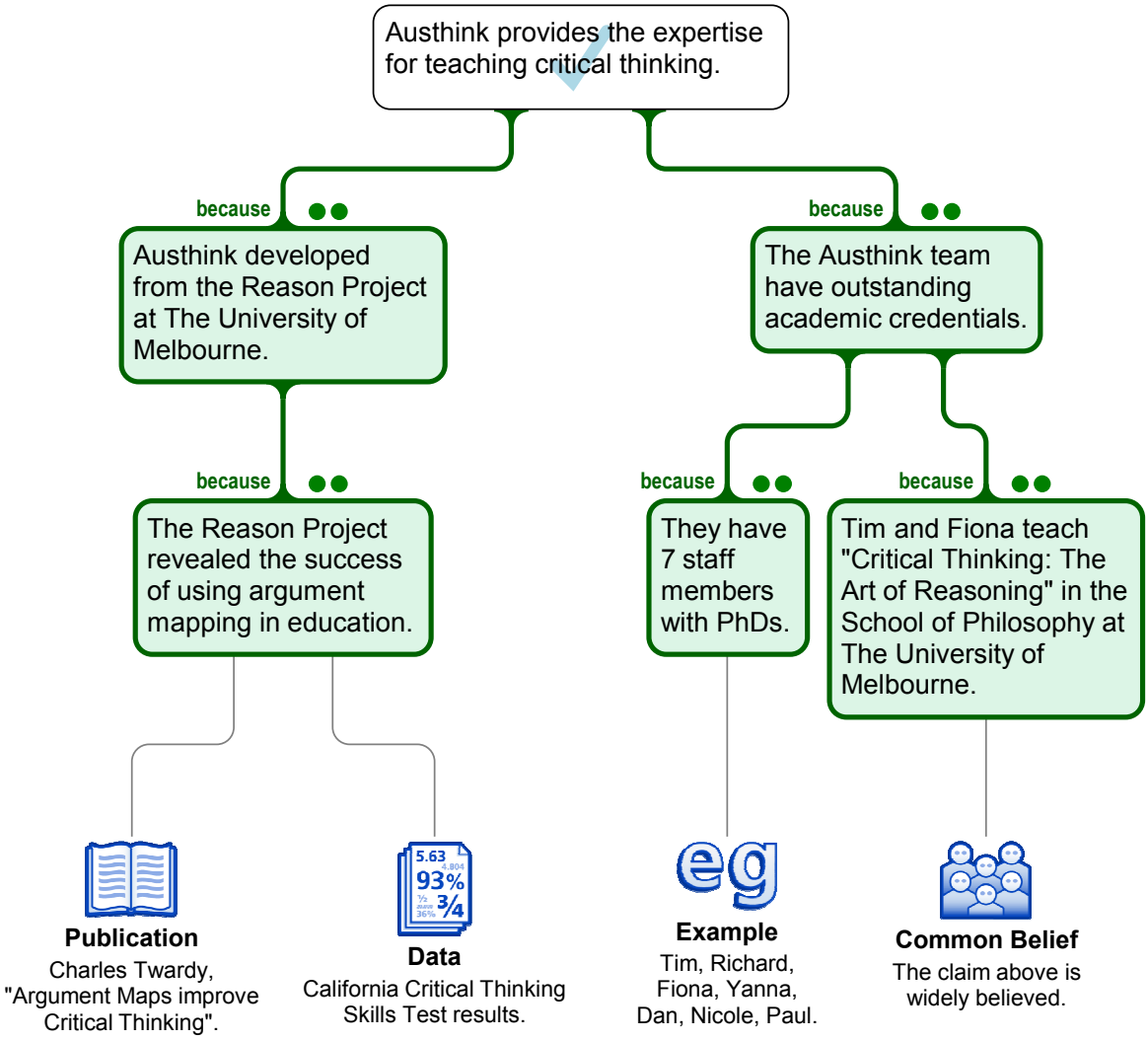
What if? What else?
Austhink's Support



Rationale

AUSTHINK

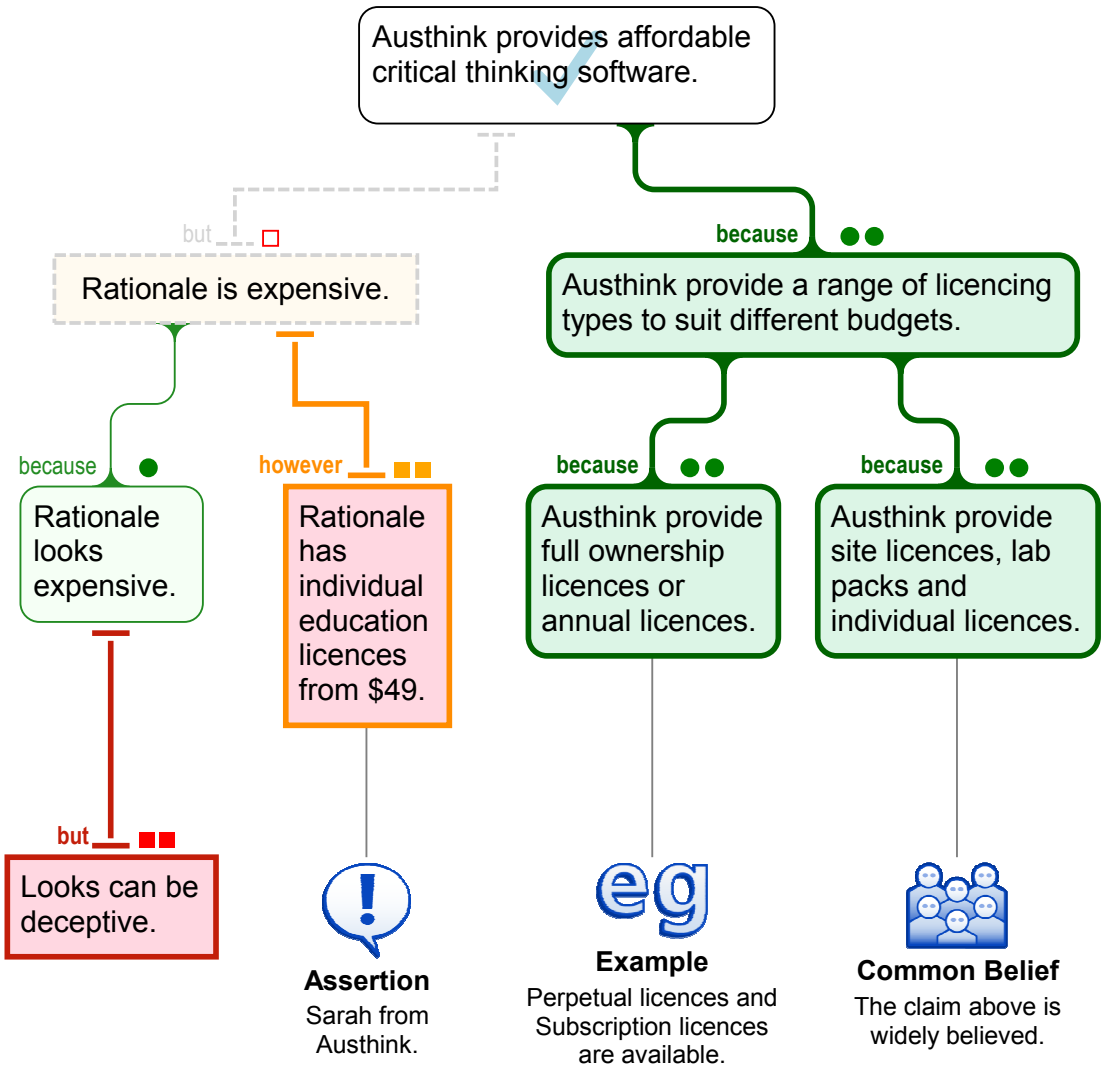
What if? What else? Austhink's Expertise



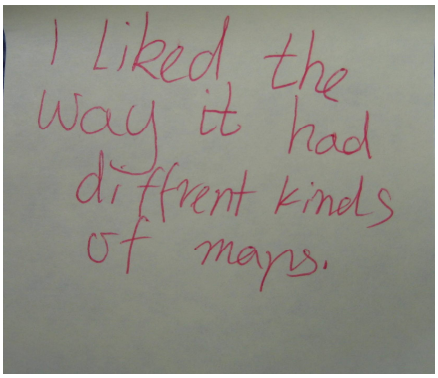
Rationale

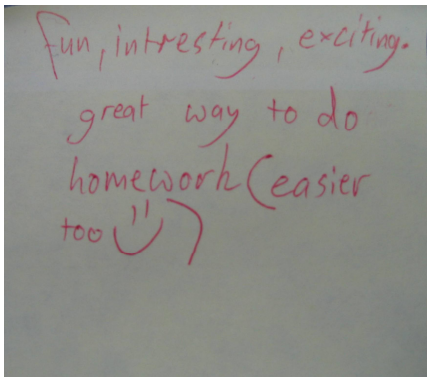
AUSTHINK

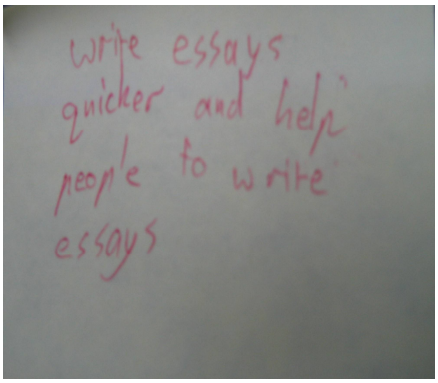
What if? What else? Rationale's Affordability

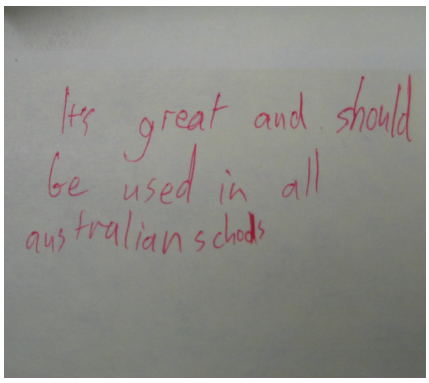


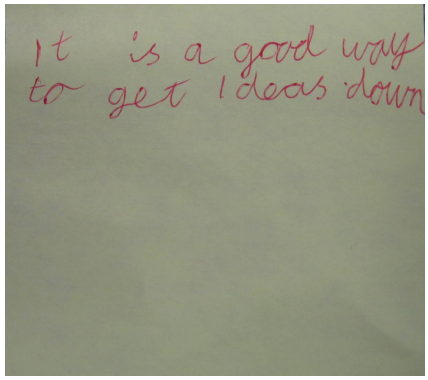
What else? Some Comments from our Primary users

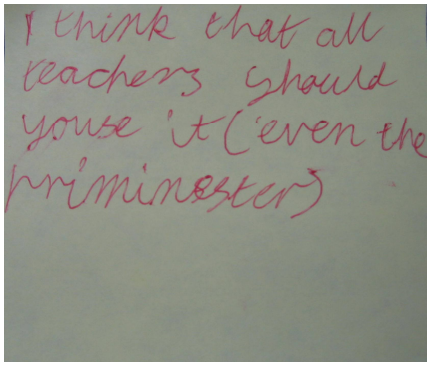












What else? Some Comments from our Educators

"Once they start to see this as a normal, natural way to think through their essay plan, the quality of their essays jumps noticeably. Students who were baffled at first start to feel that they really can do this stuff. That's magic."
Mark Matcott, Lilydale High School, Victoria.

"Wow, it was a real joy to work with the program, it really goes a long way to answering all my previous wishes, and offers lots of unlooked for delights as well."
Dr. Geoff Hyde, National Centre for Biological Sciences, India.

"I used Rationale with my first year class as part of a module on critical thinking. The software gave students a concrete focus for discussions about reasoning patterns and was a valuable component of the curriculum material. I will definitely use it again next year."
Professor Liz Sonenberg, Department of Information Systems, The University of Melbourne.

"Your new software is genuinely dazzling – both at a practical level and at a theoretical level. Congratulations!
Peter Tillers, Professor of Law, Yeshiva University, New York.