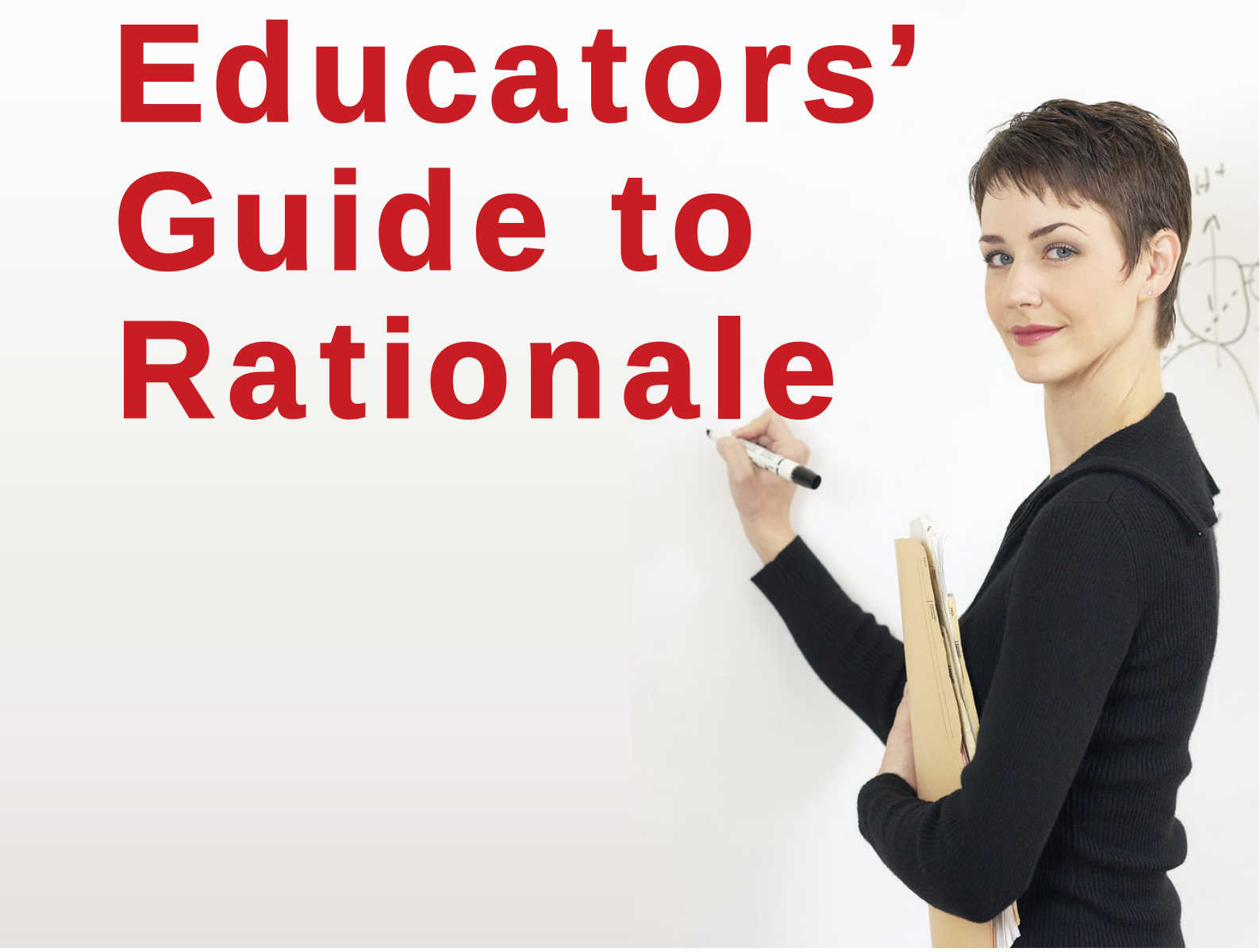
Educators' Guide to Rationale



Rationale™

Get Thinking!

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Rationale™

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1. Let the thinking begin!

1.1 Welcome

So you want to improve critical thinking skills in your classroom? Great! We are also committed to educating young people. It is crucial to enhance students' reasoning, their ability to make good judgments and effectively communicate their ideas.

Welcome to our guide and our teaching tools for great thinking.

***Rationale*™** will help your students deepen their understanding of good reasoning and critical thinking. It will aid them to manage, interpret and communicate large amounts of information and complex reasoning while formulating sound evaluations and judgement. Such skills will ensure they are equipped to organise their thoughts and evaluate the quality of the information that is increasingly available to them.

This guide will serve your needs as an educator. It provides information on critical thinking and argument mapping along with information to assist your classroom planning. There are also activities, examples and assessment guidelines available in the Educator Supplements- available for primary, secondary and tertiary teaching professionals.

You may also like to take a look at the Professional Users' Guides which will assist you with your non-teaching roles, such as meetings, curriculum reports and presentations.

With your teaching expertise and knowledge coupled with ***Rationale*™** software, critical thinking in the classroom has a very bright future. Good on you for taking up the challenge!

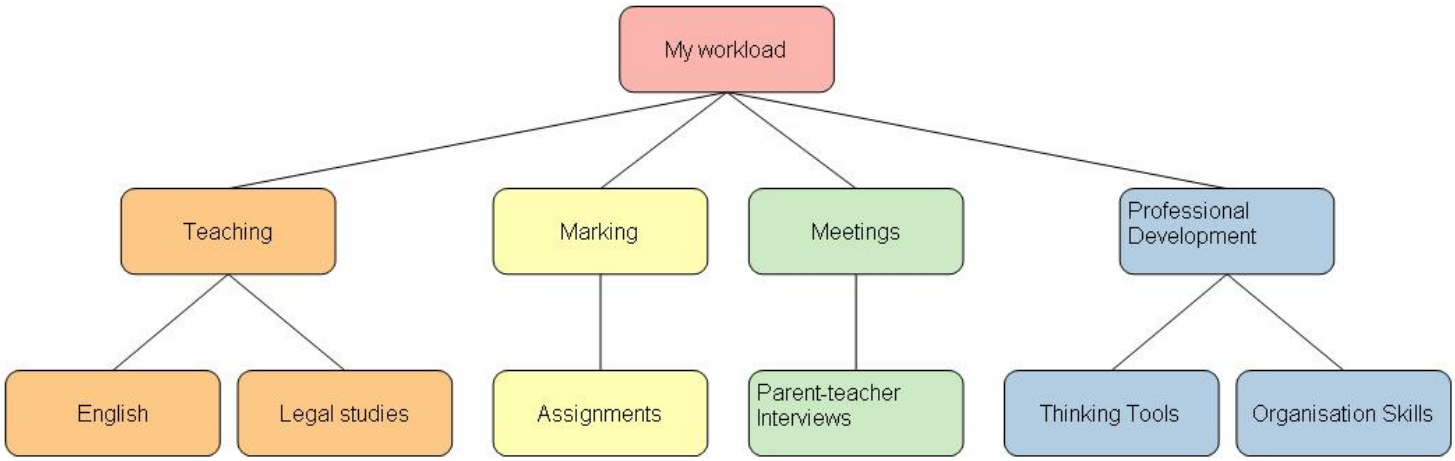
The pictures in this guide are from Rationale software; Rationale Online may be looking somewhat different.

1.2 What is *Rationale™* about?

Whether you are IT proficient or IT challenged, you can rest assured that ***Rationale™*** is EASY and ENJOYABLE to use. ***Rationale™*** creates maps of a special kind: grouping, reasoning and analysis maps.

Grouping maps are useful for brainstorming, categorizing and creating structures of items, such as objects, ideas or concepts.

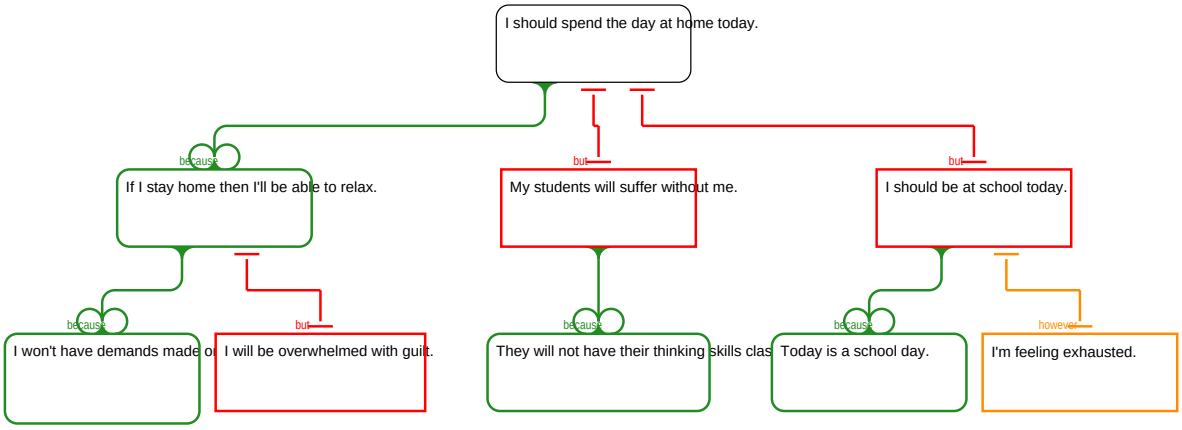
What is central to thinking skills and ***Rationale™*** is the organizing and structuring of these items. The pyramid hierarchy assists the formulation of categories by creating levels which descend from a general idea or concept to more specific particulars or details. This is an ideal format to scaffold fundamental grouping and abstraction principles, that is, understanding the relationship between ideas and how they are conceptually related.



Rationale™

Reasoning maps identify contentions, reasons and objections and importantly reveal the relationship or structure between these claims.

Argument maps scaffold the development of your students' learning in the areas of creating and evaluating arguments. This assists students to understand the concepts and structure of a well formed argument while understanding the process of evaluation and making sound judgments.

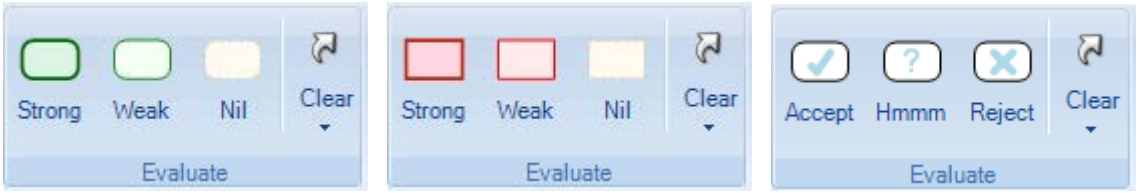


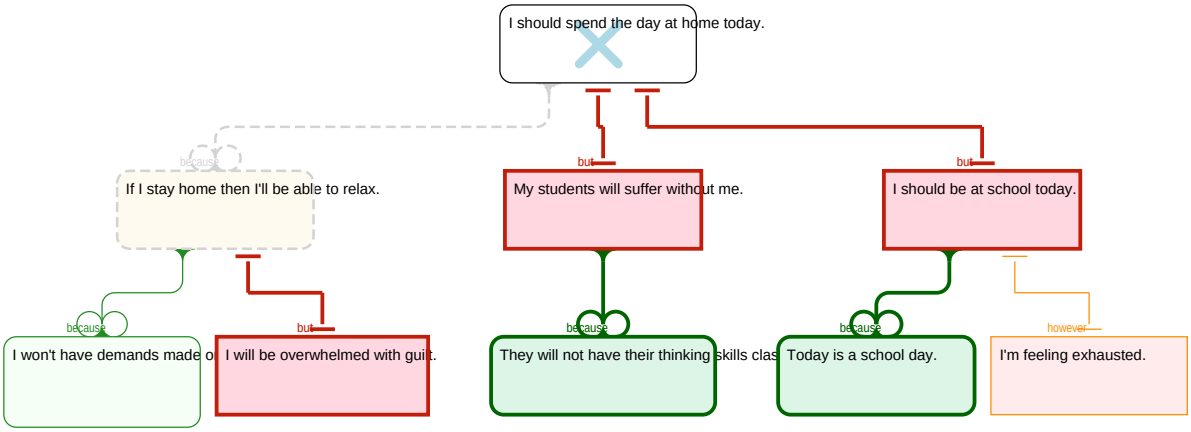
There are visual features of a reasoning map, such as the colour of the boxes and their location within the argument structure.

The position (or conclusion) box is white and located at the top of the map. **Reasons** supporting the position are located underneath the position and are outlined in green while **objections** are red. The orange box signifies a **rebuttal**, which is an objection to an objection.

There are three levels of reasoning boxes – the first is the position, the second the reasons and objections that support or refute the position, and the third level provides support to the second level reasons and objections. Thus, the role of the third level is to strengthen the level above it – rather than directly respond to the position.

To judge the strength of an argument ***Rationale™*** provides an evaluation feature. When you evaluate a map, box colours and connecting lines change to indicate the strength of each reason and objection. You can then judge whether to accept or reject the position based on your evaluations.

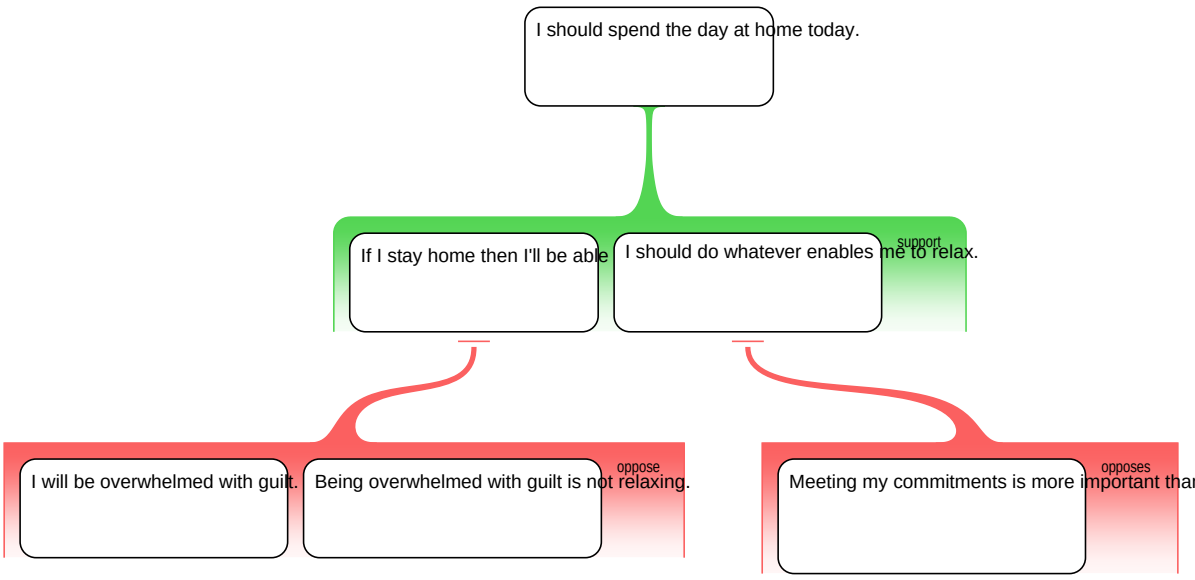




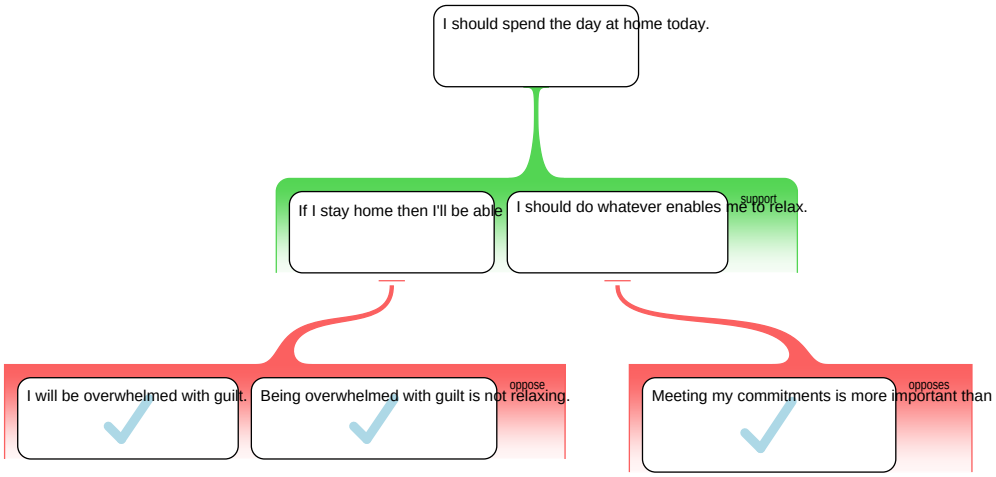
Analysis maps are the most powerful means for developing advanced critical thinking skills.

They are very similar to Reasoning maps, but they are much more precise and detailed in three ways. First, they require more precision in the way the claims are expressed. Second, they break down each reason and objection into the multiple claims (premises) that make it up, prompting the student to articulate the assumptions in an argument. Third, in evaluation they distinguish between the truth or acceptability of a claim on one hand and, on the other hand, the strength or validity of the inference from a set of claims (a reason or objection) to another claim.

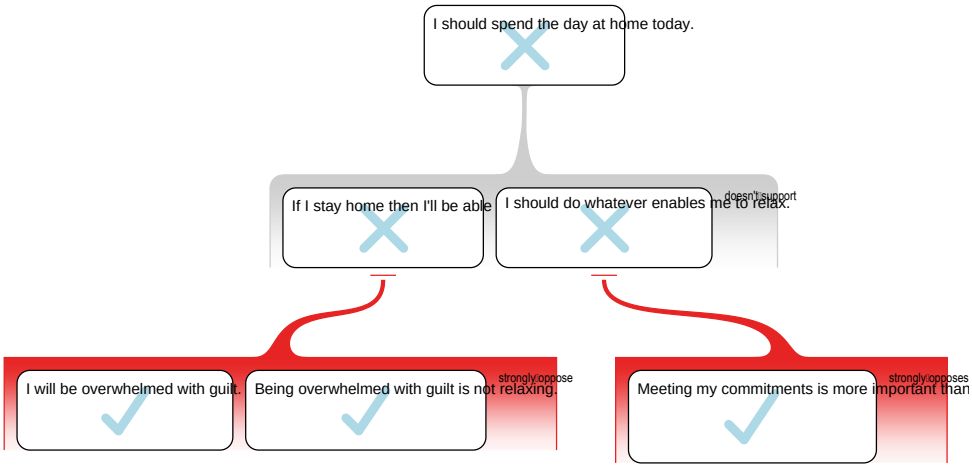
The map below represents a section of the previous Reasoning map, this time using the analysis format, with the claims clarified and the assumptions spelt out. Spelling out assumptions makes it easier to see weaknesses in arguments – so there's a new objection in the new map. For example, the reason that "If I stay at home I'll be able to relax" has an implicit claim upon which it relies: that "I should do whatever enables me to relax." This claim is not a distinct reason but uncovers an assumption within the reason. This part of the reason is also know as a hidden premise or a co-premise.



In analysis maps, evaluation has two steps – the first is to consider whether each part of the reason is true (these are also known as claims or premises).



Having determined whether each claim is true, then you determine whether the reason or objection provides support, or opposes the claim above.



As with reasoning maps, the colours of the boxes and the lines changes to represent the strength of the reason or objection. In this example, both objections contain true premises and provide strong opposition to the premises above. Thus, the reason claims are considered not accepted and so the reason is rejected as support for the position that "I should spend the day at home today."

2. Why?

2.1 Why all the fuss about thinking?

Educators have been focused on teaching students *how to think* for a very long time. Yet this has often been met with limited success. Perhaps this is because of disengaged students; perhaps because subject content is given prominence over general skills for learning and processing information; perhaps there has been limited resources – computer access, appropriate software and time; or perhaps because we are using methodologies which do not reflect the experience of our students.

Whatever the reason, we probably all agree that we want students to think more clearly, systematically and logically. We want them to be able to identify and offer different perspectives to an argument. We want them to uncover hidden assumptions and critically evaluate reasoning so that they can make a well balanced judgment. We also want students to be able to communicate this process, especially in essays, reports, oral presentations and debates.

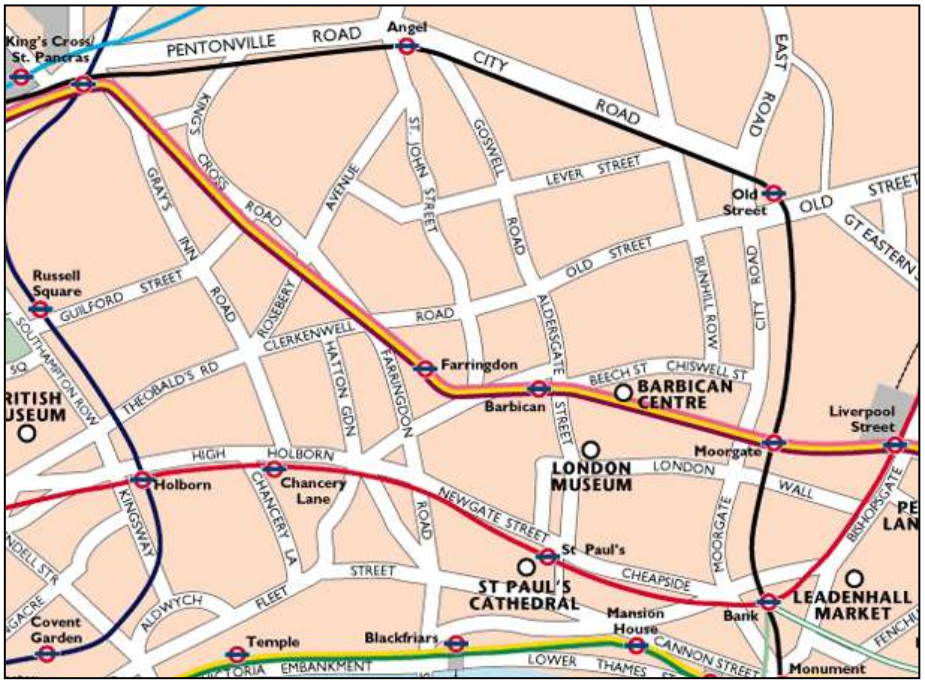
2.2 Why argument maps?

Rationale™ was developed in response to a problem – a big problem – students weren't learning! The visionary for ***Rationale™***, Associate Professor Tim van Gelder, was teaching an undergraduate philosophy subject in critical thinking at Indiana University. The problem, and the frustration, was that students were making little or no improvement using the traditional philosophic "standard form" approach.

We could reflect that this was just an isolated case, resulting from Tim's teaching (sorry Tim!). Yet as educators in our various disciplines, we know that the problem lies deeper than blaming the teacher and we know that this problem is universal. So rather than accepting this situation, Tim set about investigating the methodology behind our thinking processes. This isn't the time and place to go into specifics, but try these few exercises and think about what it reveals about how we think:

1. **Noughts and Crosses**: In the staffroom play a couple of games of noughts and crosses….. now the challenge…. remove the paper and pen and play by communicating your moves to each your colleague, "in the air" as it were. What do you notice? Need a bigger challenge? Ok, play 4X4 noughts and crosses. And you guessed it… after playing a couple of rounds, remove your paper and pen. Make your moves in your minds and communicate this to each other. What do you notice now?
2. 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. Finding it difficult? Time how long this takes you to ascertain and rate the level of difficulty. Now take a look at the **map**. Any difference in time and effort?

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.



Our Rationale

Consider what you have experienced in these examples and how this may relate to your learning and teaching.

Our conclusions are:

1. *You can't hold everything in your head!* The more information we gather the more cognitive strain or 'brain burn' we experience. In the case of the noughts and crosses game, we need to write the grid and our moves down because this relieves the burden of having to remember every move and its relationship to other moves. This allows more cognitive capacity to create a strategy about our future moves and to think about the other person's strategy. We play a better game when we have tools to record the moves and show relationships.

2. *Maps are easy to use*. The London prose and map show us the ease of using maps. This is not a mere learning preference but reveals something more about how our brains work. Whereas the London prose provides us with the information we need, it requires a lot more sifting through the information and brain power than a visual representation. Maps ease the cognitive strain because they make use of colour, shapes and symbols to identify objects and their relationship to each other. This certainly doesn't mean we want to eliminate prose. On the contrary, we want students to write or speak clearly, with structure and consideration, providing refined claims, language that is appropriate and indicator words and phrases. Argument mapping is the methodology which scaffolds this understanding and equips students with the ability to communicate effectively.

Our Research

Austhink, in collaboration with the University of Melbourne, has undertaken extensive research to determine the impact of argument mapping for critical thinking development.

In 2000-2003 first year undergraduates were tested for the philosophy subject, "Critical Thinking: The Art of Reasoning." The research utilized the *California Critical Thinking Skills Test* (CCTST) which is an international assessment standard designed to measure reasoning and critical thinking skills before and after a course.

The **quantifiable success** of argument mapping software showed a threefold enhancement of critical thinking skills over prose based methods. (This course was undertaken with ***Reason!Able,*** the younger sibling of ***Rationale™***). The statistical gain for critical thinking courses using traditional prose based methods is typically 0.3 standard deviations whereas the *Reason!Able* argument mapping method consistently achieved 0.7 to 0.85 standard deviations. This is almost **three times more** than traditional approaches over the 12 week semester course.

For more information refer to Charles R. Twardy's article from *Teaching Philosophy*, June 2004.

"Argument Maps Improve Critical Thinking"

Also at http://www.csse.monash.edu.au/~ctwardy/lab.shtml#critical

3. What?

3.1 What can Rationale™ do for me and my students?

Seeing & Teaching thinking processes

Rationale™ and its support materials are effective resources for your classroom teaching practice. Teaching young minds how to think, and to think effectively and critically, requires that students develop both skills and conceptual understanding. This presents two problems:

1. the aspects of "thinking" are not clear, and
2. assessing "thinking" is usually an attempt to find some evidence of what largely goes on "in the head."

The benefit of an argument map is that the stages of critical thinking are more obvious and the map provides an important visual tool which can be monitored and assessed against criteria. This guide will assist you with identifying the aspects of good thinking together with its assessment.

Rigour, Clarity & Structure

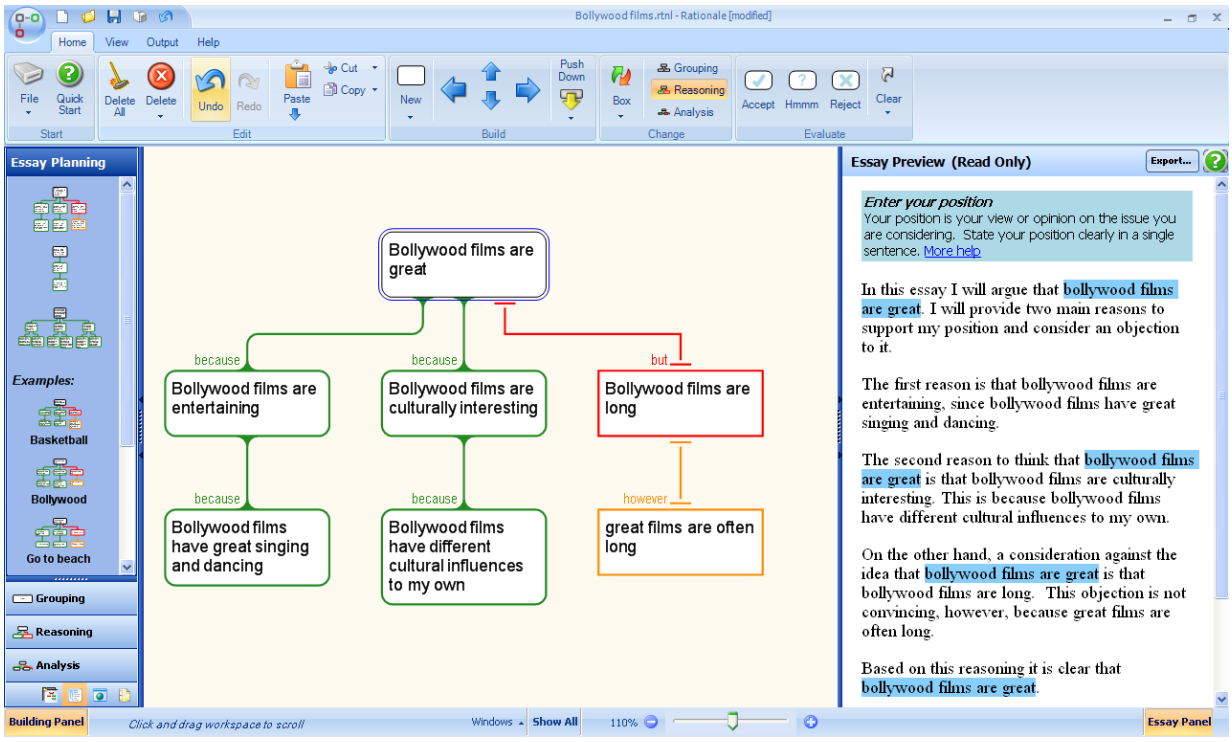
The focus of ***Rationale™*** is ensuring rigor and clarity to student's reasoning in order to develop their critical thinking capabilities. ***Rationale™*** enables the mapping of different perspectives and ideas. It is an invaluable tool for representing arguments; making clear what claims are made and where they stand in relation to one another. This can certainly be seen as a form of mind mapping, however the process of critical analysis is not simply one of writing down anything and structuring it haphazardly. While there are numerous mind mapping programs, ***Rationale™*** is distinguished by the way it scaffolds ideas and reasoning into a hierarchical structure specific to the representation of arguments.

Evaluation, Judgment & Analysis

Importantly, ***Rationale™*** also includes the ability to evaluate claims and the overall strength of a position. Having identified an argument, its individual claims and their structure, students then put on their Judges' hats (or wigs) and analyse the information before them. This evaluation process ensures students understand and justify why they accept a claim as true and consider the level of support it offers a further claim. When the reasons and objections have been evaluated for truth and support (or validity and soundness) students are then in a position to determine whether to accept or reject a position.

Summarise, Record & Communciate

The completed argument map may then be used to summarise and record an argument or provide a basis for a student to communicate their understanding, analysis and evaluation in prose or as an oral presentation. ***Rationale™*** provides an **essay planner** function to assist this process. This tool assists students to understand how their visual map translates into systematic and clear prose. It shows them the form or structure of an argumentative, persuasive or exploratory essay and the role of language in communicating ideas and reasoning.



The practice that the planner provides through ready made templates is a terrific way to aid and reinforce student understanding of essay writing and to equip them with the knowledge and skills which may be transferred to assessment tasks. We have all taught students who have original and interesting ideas but who struggle to structure them clearly and logically in an essay format. Consequently, their thinking looks muddled because their ideas and reasoning are presented in an unstructured manner and in language that does not effectively "signpost" their reasoning.

Planning, Monitoring, Reporting, Auditing & Assessing Thinking

With argument maps students can visually demonstrate what and *how* they are thinking. As teachers we can see where they have understood or misunderstood – whether this is in the structure of reasoning, in the evaluation or in the knowledge exhibited by the claims themselves. It reveals problems of concepts, category formations, reasoning, lack of refinement and clarity and the depth of understanding. This radically transforms the information objectively available to the teacher, providing further support for:

1. **Planning** To ensure lessons reflect stages of development in thinking skills appropriate to the students and the subject content at hand.
2. **Monitoring** Teachers can see the extent to which criteria for critical thinking skills are met and advise students on the aspects of their work that meet the criteria and those that need more practice.
3. **Reporting** Communicate and show the aspects of thinking which students have achieved to the student and their parents.
4. **Auditing** Whether an audit is conducted for one's own purpose or for a governing body's requirement, the process can now be met with ease – after all you know the skills the students require and can clearly demonstrate where each student lies with respect to required curriculum outcomes. (See The ASPIRE table which provides many terms utilized within curriculum documents to represent the various elements of good thinking practice).
5. **Assessing** How we assess student work and students ability to "think" are important and controversial issues. After all, what exactly is meant by "thinking" and isn't this what our students fundamentally do in every subject? Of course, thinking is always underway (or for the most part we hope!), but we need a means of identifying stages and elements of thinking and criteria for determining how well our students achieve these stages. Moreover, we need to be able to show students how to think well and in what ways their answers show good thinking and/or where they could be improved. Whether one chooses a formative or summative approach to assessment, ***Rationale™*** assists by visualizing the elements of critical thinking and good decision making. As a means of providing support to your teaching, perhaps think of the acronym **ASPIRE** to represent key features of critical thinking that an argument map reveals.

ASPIRE: *Assessing Critical Thinking*

Reflects the student's ability to...		Related terms
A **Advocate**	Clearly and effectively advocate a position or advance the position/s of others.	Argue Advance Persuade Select Conclusive Discuss Analyse
S **Structure**	Logically structure claims or ideas to illustrate the relationship to other claims or ideas.	Classify Abstraction Hierarchy Group Organise Categorise
P **Present**	Transfer the mapping skills to an oral presentation, report or essay.	Report Essay Write Communicate
I **Inform**	Be selective in the choice and range of information utilized.	Select Question Collate Organise Inquire Judge Collect Research
R **Refine**	Refine claims such that they are both clear to an audience and appropriate for the task of evaluation.	Simplify Clarify Declare Literal Precise Concise Unambiguous Emotionally measured

E **Evaluate**	Assess claims with respect to their truth and to their level of support they achieve for other claims.	Justify Judge Conclude Determine Consider Reflect

3.2 What about my taxonomy?

Bloom's Taxonomy of Educational Outcomes

The ***Rationale™*** argument mapping process ensures the various stages of cognition are developed as detailed in Bloom's (revised) Taxonomy.

1. Knowledge The argument map requires that *information is recalled* to demonstrate recognition of the content of a given topic.

2. Comprehension The argument map requires that *information is organized* to demonstrate sufficient understanding, description and comparison of the issue and the relationship of claims in relation to each other.

3. Application The argument map requires the *application and selection* of relevant knowledge to solve a given problem.

4. Analysis The argument map requires that students *analyse information* by requiring them to *identify supporting reasons and objections*, *other reasons and objections* not already considered, and to determine whether there are *hidden claims*. This ensures a depth to the thinking process.

5. Evaluation The argument map has an evaluation mode with one or two steps depending on whether you are creating a Reasoning or Analysing map. For Reason maps, a student rates the strength of a reason or an objection and the acceptability of a position. For Analysing maps the student judges the truth of a claim, the strength of a reason and the acceptability of the position.

6. Synthesis the argument map facilitates higher order thinking by synthesizing a student's skills in the creation and communication of an argument – to demonstrate *knowledge* of a topic, *comprehension* in the organization of its claims, *application* in the selection of knowledge relevant to a problem, *analysis* in the inclusion of further reasoning and disclosure of co premises, and the *evaluation* of claims and judgment as to the acceptance or rejection of a proposition.

3.3 What about Howard Gardner's Theory of Multiple Intelligences?

Engagement in the learning process requires the integration of diverse methods. This ensures interest is maintained and abilities recognized and developed. The ***Rationale***™ argument map caters for different learning styles in the following ways:

1. Linguistic: Working with words and meanings are integral to building, evaluating and communicating arguments. For example, ***Rationale***™ requires that attention is given to claims to ensure they are adequately refined and indicator words provided to communicate reasoning. The essay planner is provided to assist scaffold this process.

2. Logical-mathematical: ***Rationale***™ centers upon good reasoning and logical methods whereby claims are classified and logical connections drawn between them.

3. Spatial: Argument mapping is a visual tool to clearly represent an argument and this particularly appeals to visual-spatial learners. Nonetheless Austhink's - the predecessor of ReasoningLab -extensive research demonstrates the benefits of visualising an argument because it decreases our cognitive burden. Tasks such as remembering claims, refining them, detailing their relationships to one another, analysing and evaluating an argument are challenging work. This is made less difficult if we have a map to visualize and guide our thinking.

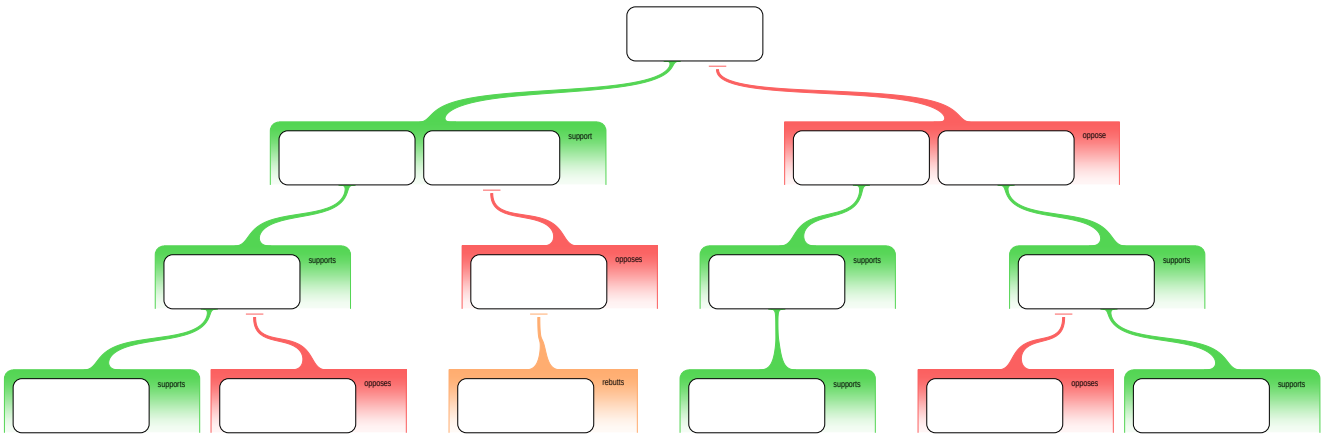
4. Bodily-kinesthetic: While ***Rationale***™ focuses upon the processes of the mind, mapping will appeal to bodily-kinesthetic learners by allowing them to build, move and manipulate claims. As a class exercise, students can form supporting and opposing cases, play argument chess or manipulate a smart board to allow physical movement of themselves and the dragging and dropping of claim boxes.

5. Musical: Well perhaps ***Rationale***™ is not the most musical software, but ideas are forming, and in the future… well, wait and see!

6. Interpersonal: A good argument requires the consideration of other perspectives and other people's opinions. Creating an argument map as a class or individual activity develops the interpersonal skills of listening and expressing views while encouraging the interaction between people and ideas.

7. Intrapersonal: ***Rationale™*** encourages self reflection by the process of considering and expressing supporting reasons and assumed premises of one's own thoughts and beliefs. Central to the process of critical thinking is the ability to address one's own cognitive bias and so a good argument requires that one also considers objections to one's reasons.

8. Naturalistic: Yes, this intelligence is hard to cater for within a software environment. Nonetheless the ***Rationale™*** argument map may be considered as an argument *tree* with various branches of reasoning. Have a look at analysis maps, they are very tree like and organic. Ok – so this is only a metaphor, but perhaps the topic could reflect environmental and naturalistic concerns?



4. Who me?

4.1 With my curriculum?

Curriculum frameworks differ between states and countries yet there are frequently requirements or standards to meet thinking processes and skills.

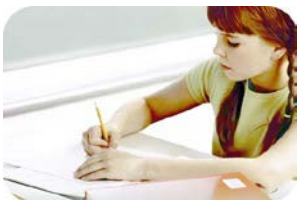
Notwithstanding education regulations, the development of general or higher order thinking skills is imperative to,

- develop basic competencies to gather, sort and select information,
- to effectively structure and organize ideas and reasoning, and
- to analyse and evaluate claims and arguments.

In order to provide appropriate resources for different stages of learning at school, ***Rationale™*** has developed 4 levels which represent learning from kindergarten to year 12.

Early Learners

From Kindergarten to Year 3



Primary Learners

From Year 4 to Year 6

Middle Learners

From Year 7 to Year 10

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Senior Learners

From Year 11 to Year 12

Of course this is a general guide and by no means suggests all learners are at the same stage within these four broad categories. The following table illustrates the different Australian State Education curriculum programs and the relevant levels applied to each year level.

State Curriculum Levels

Rationale™	School years	NSW	QLD	SA	TAS	VIC	WA
Early	**Kinder - Prep**	Stage 1	K	Early years	K	1	Foundation
	1-2	Stage 1	1 -2	Early years	1 -2	2	Level 1
Primary	**3-4**	Stage 2	3- 4 Middle	Primary	3-4	3	Level 2
	5-6	Stage 3	Middle 5-6	Primary 5, Middle 6	5-6	4	Level 3,4
Middle	**7-8**	Stage 4	Middle 7-8	Middle	7-8	5	Level 5,6
	9-10	Stage 5	Middle 9-10	Middle 9, Senior 10	9-10	6	Level 7, 8
Senior	**11-12**	Stage 6	Senior Phase	Senior	TCE	VCE	WACE

For practical classroom resources appropriate for these levels, see the relevant **Educator Supplements** – available for

Primary (Early and Primary learners)

Secondary (Middle and Senior learners), and

Tertiary (for College and University learners).

4.2 In my classroom?

Rationale™ - Ideally

Rationale™ is a software product which requires appropriate ICT facilities in the classroom.

The ideal environment is to have a computer room with small groups sharing a computer (pod) for team work and each of these pods connected to a central (Teacher) computer. The teacher's screen and each terminal can be projected onto an interactive whiteboard which can then be written upon with additional comments and highlighting devices. In this way a team learning environment is created and each team's work may be displayed and discussed to further enhance sharing of knowledge and ideas. The pods are also an effective way to monitor work and promote peer learning.

Cecil Scutt Room, Old Arts Building,

The University of Melbourne, Parkville.

Ideal to Reality

The ideal is not always the reality - and this is fine! There are many ways to argument map with ***Rationale™*** without a specialised computing facility. Here are a few alternatives which may assist your teaching given limited access to ICT resources:

One computer, one map

It is often beneficial to have one computer projected onto a screen or wall if you are working as a class. For instance, if you are having a debate, if you are mapping ideas while brainstorming or playing Argument Chess. For this facility you will need a computer (desktop or laptop) and a projector. You may find your school has a portable projector which you can borrow from your library and connect to a laptop for use anywhere in the school.

Many computers and many maps

If you have individual computers for each student you may wish to make a decision as to whether you will have individuals mapping privately, in pairs or small teams. Alternatively, you may undertake a "think, pair, share" activity. Whatever format you choose will be dependent upon your educational purpose.

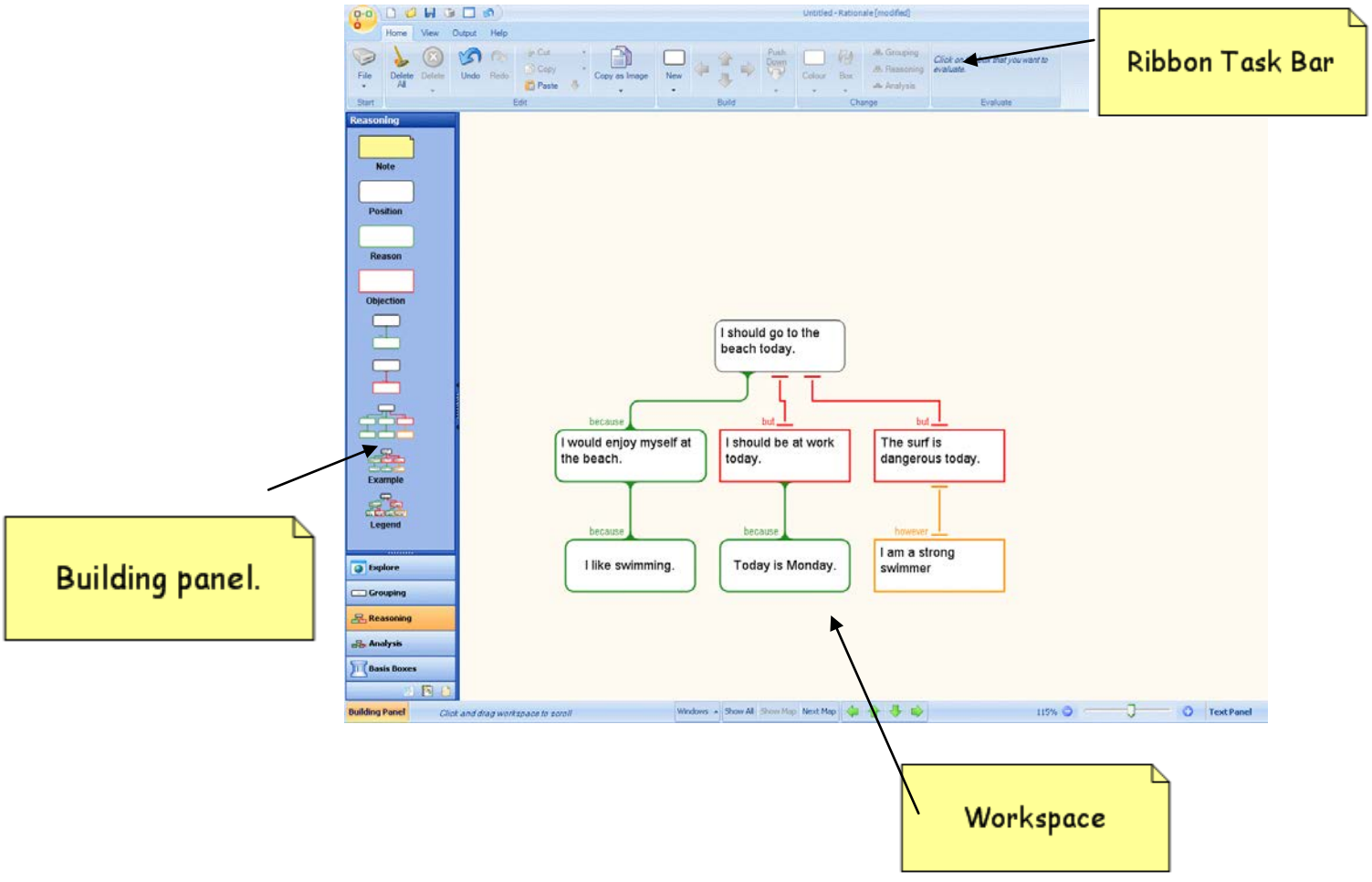
No computer (especially when I need it!)

Perhaps your class is undertaking an activity which develops into a field of ideas and arguments, and you realise that having an argument map at hand would be ideal, *if only you had a computer!* The alternative is to use a Rationale argument map templates printed out.

5. How?

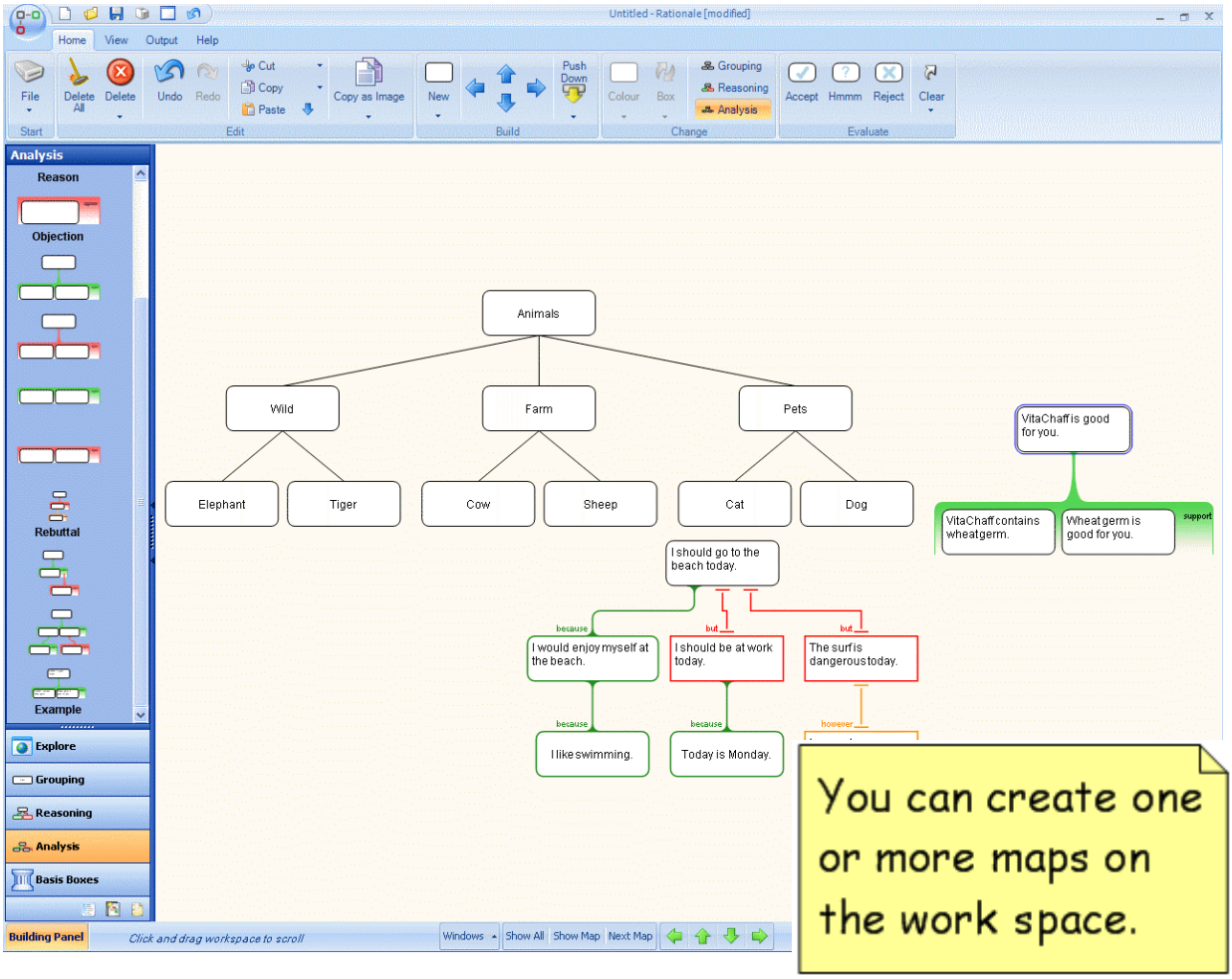
5.1 How do I navigate around Rationale™?

Rationale™ has a workspace, a building panel and a ribbon task bar.



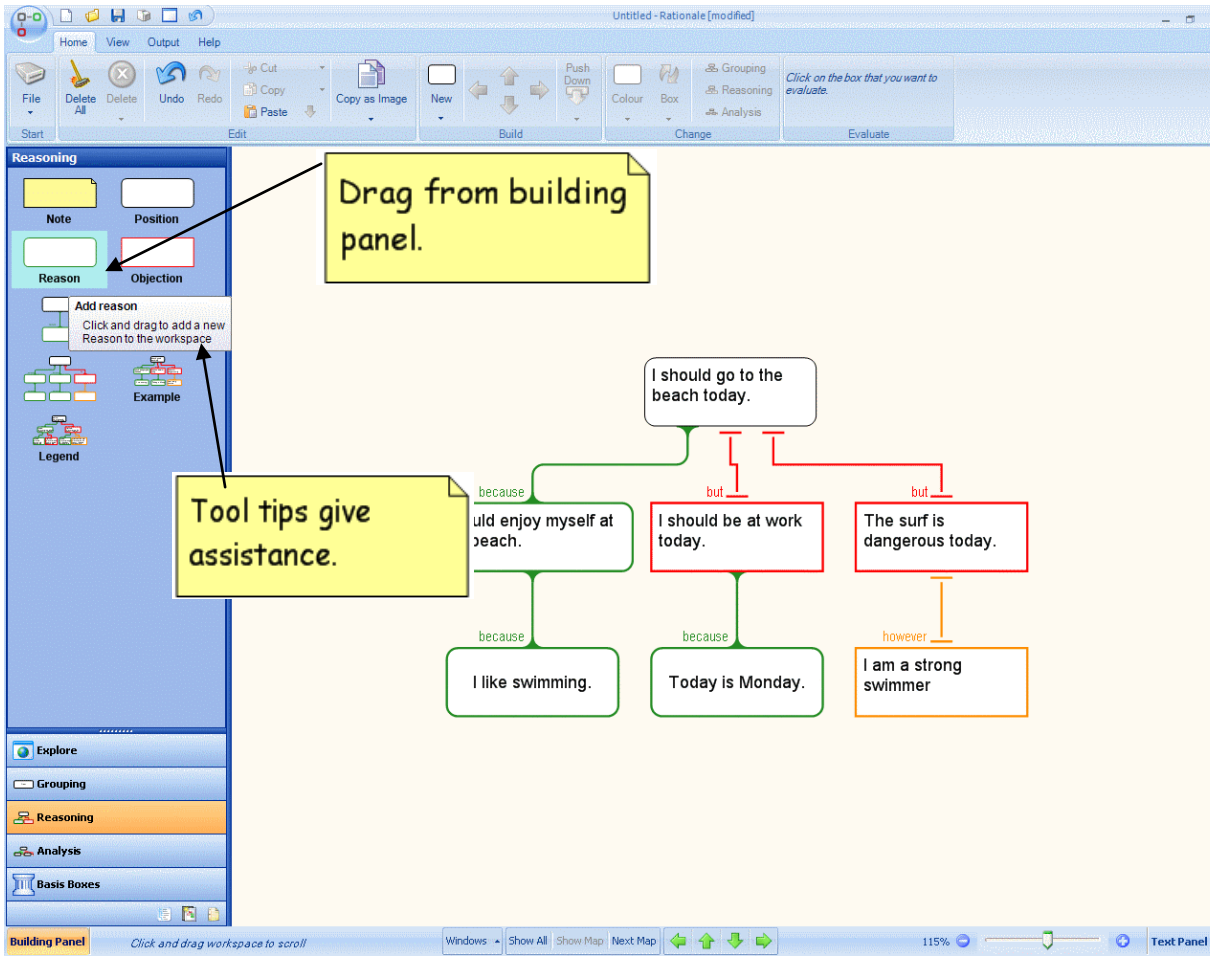
A. Workspace

The **workspace** is where you create your grouping or argument maps.



1. Creating

On this workspace you can *drag and drop* a **position**, **reason** or **objection** box or a ready made **template** from the **building panel**. You can also add **sticky notes** to highlight or remember key points.



2. Viewing

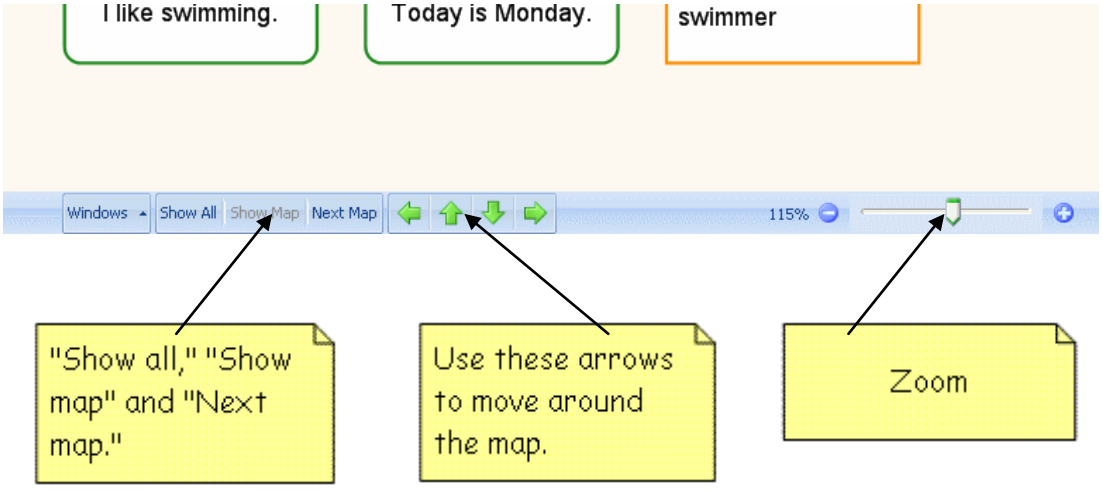
Showing maps

Sometimes you may have more than one map on the workspace, so to view the entire workspace you can choose the **show all** button, or the F8 key. Similarly, you can view one map by selecting the **show map** button, or the F9 key. The next map button will take you to the next map on your workspace, working top to bottom and left to right.

Zooming

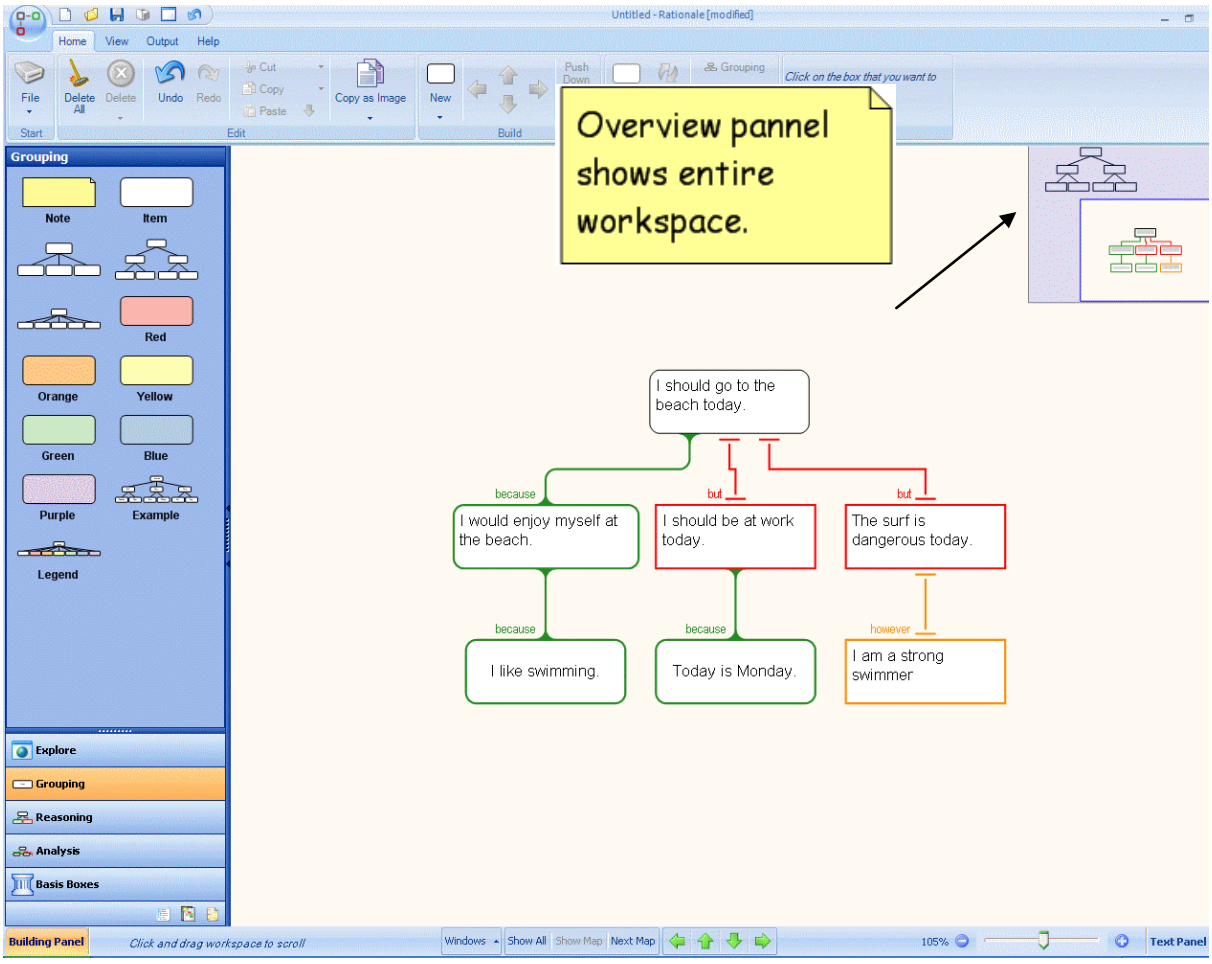
To zoom in and out you can use the zooming bar on the bottom right corner.

If you have a mouse wheel, you can also use that to zoom in and out



Overview Panel

When the maps on your workspace extend past the area currently in view, an overview panel appears. This will identify all the maps on your workspace. It will also highlight what part of the workspace is presently in view. The lighter area illustrates the workspace currently in view on your screen.

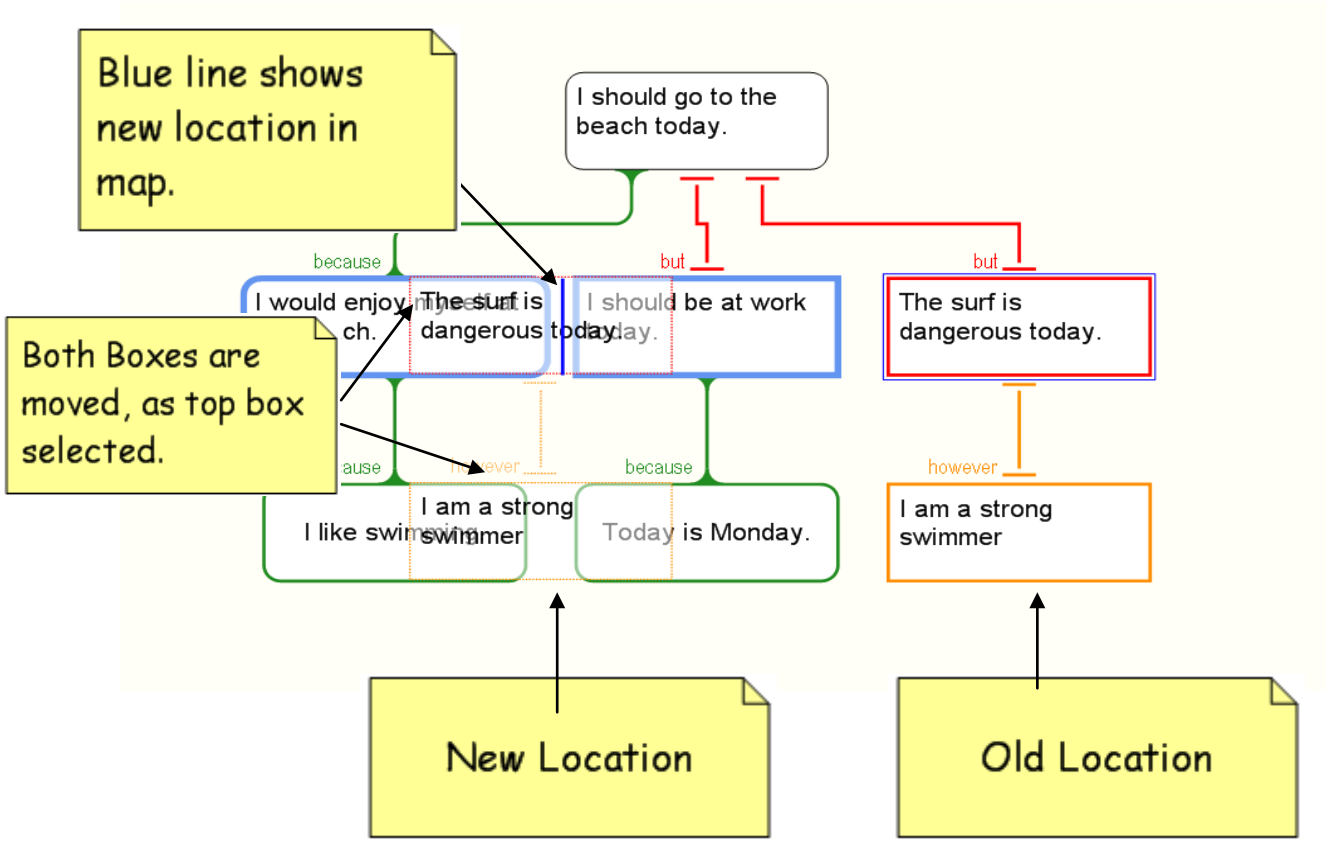


3. Moving

Moving Boxes

You can move boxes on your workspace by selecting (click on the box) and holding down the left-hand mouse button while you move it into the desired position. You will know where it will connect to the main map by the blue line that will appear.

To move more than one box, select the top node, and all attached boxes will move with it.

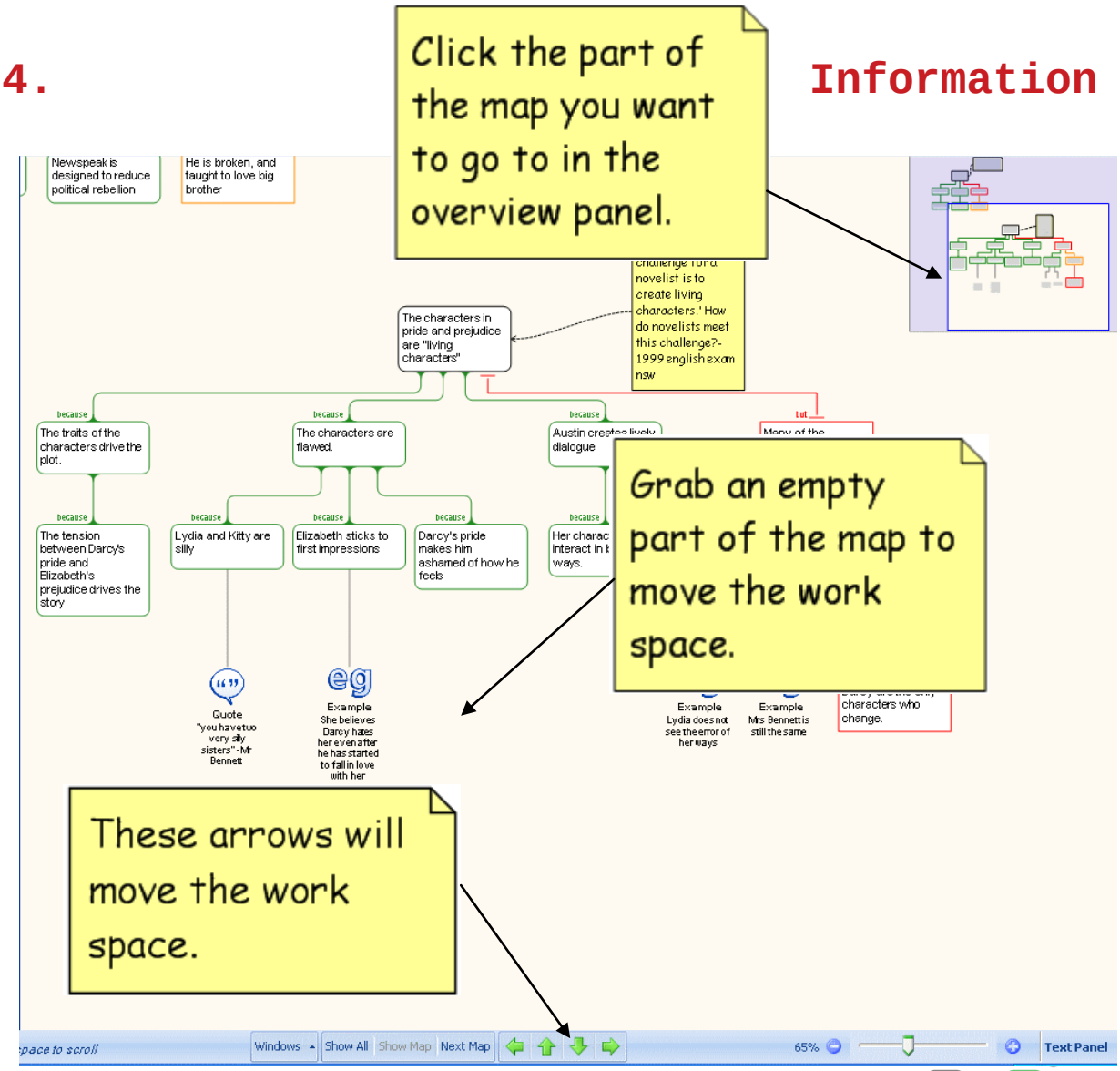


Moving a map

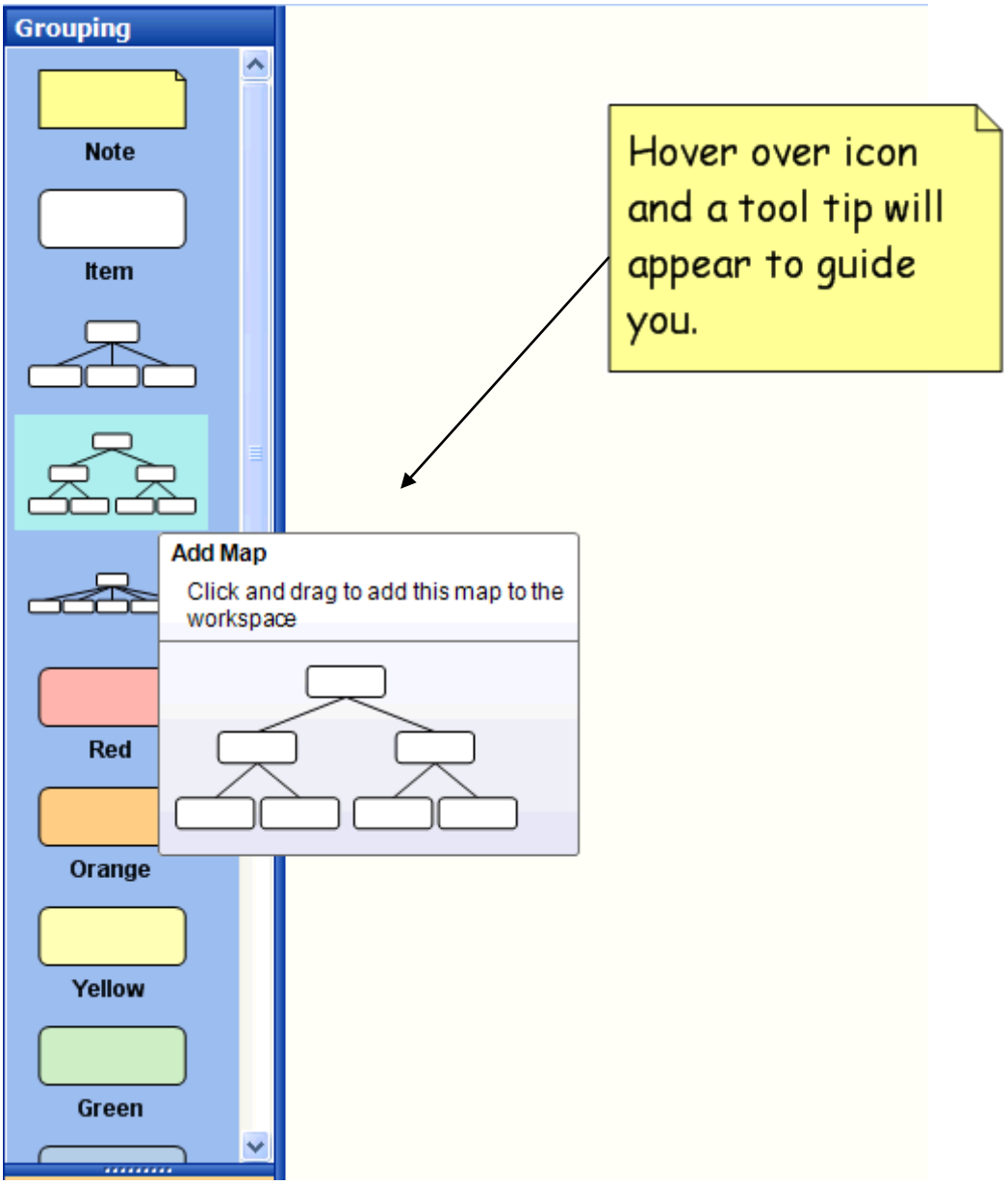
You can move around the workspace by

a) using the overview panel. You can hold down the left hand mouse button and as you move around the panel, your workspace will reflect your movement.
b) Holding down the left-hand mouse button on the work space itself (not the box)

4. **Information**

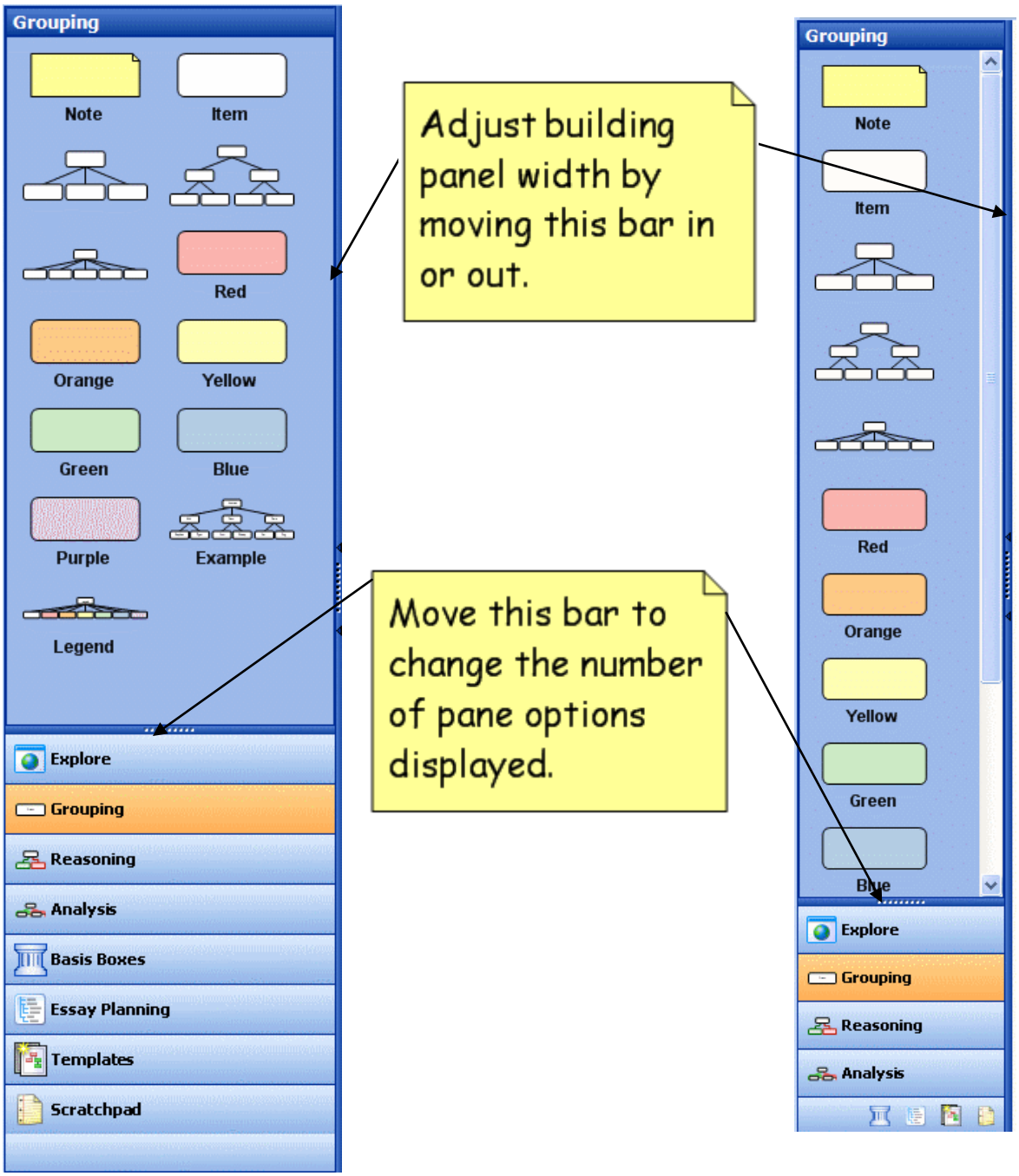


Tool tips appear to inform you of the action you will be performing by clicking on the corresponding button.



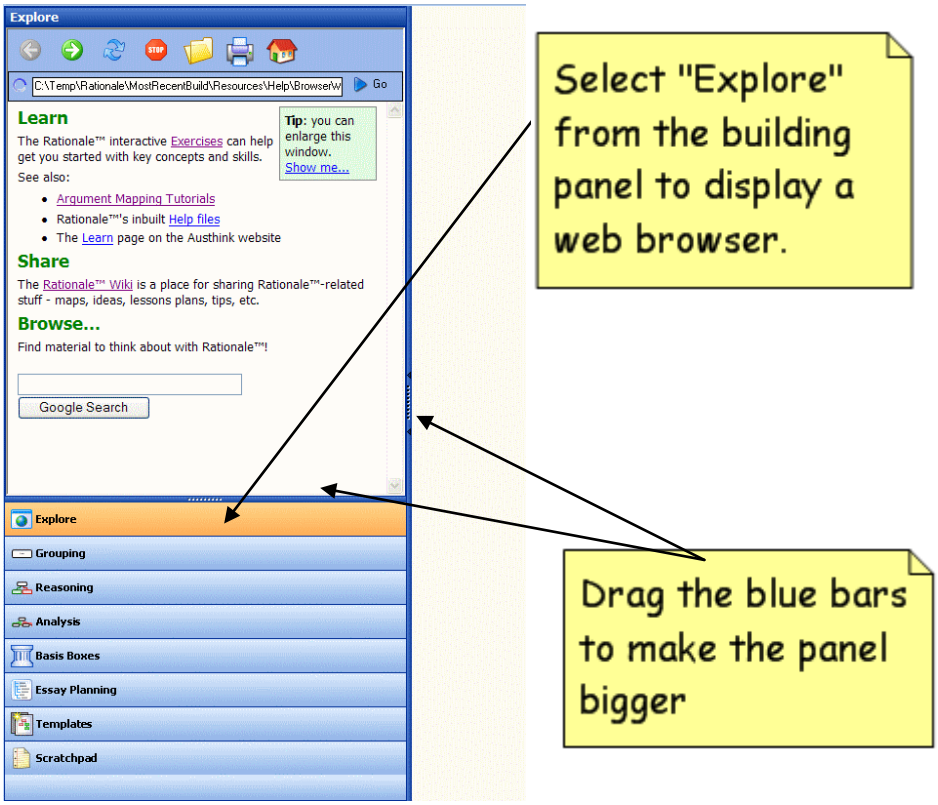
B. Building Panel

The **building panel** can be adjusted to display more options.

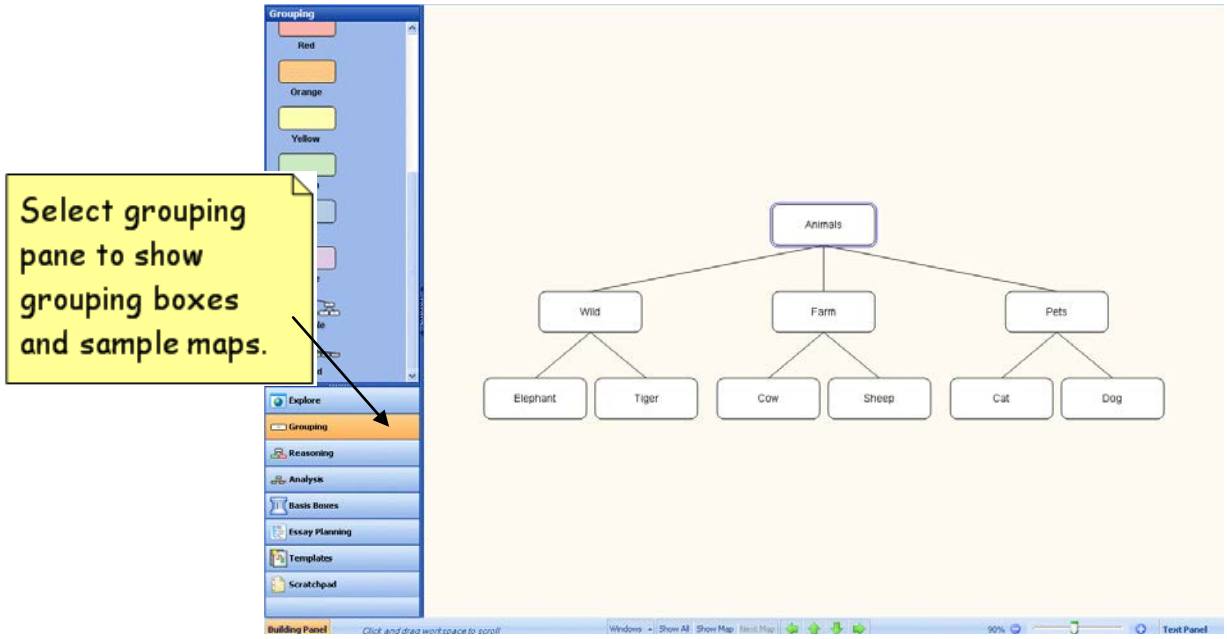


The building panel has 8 panes:

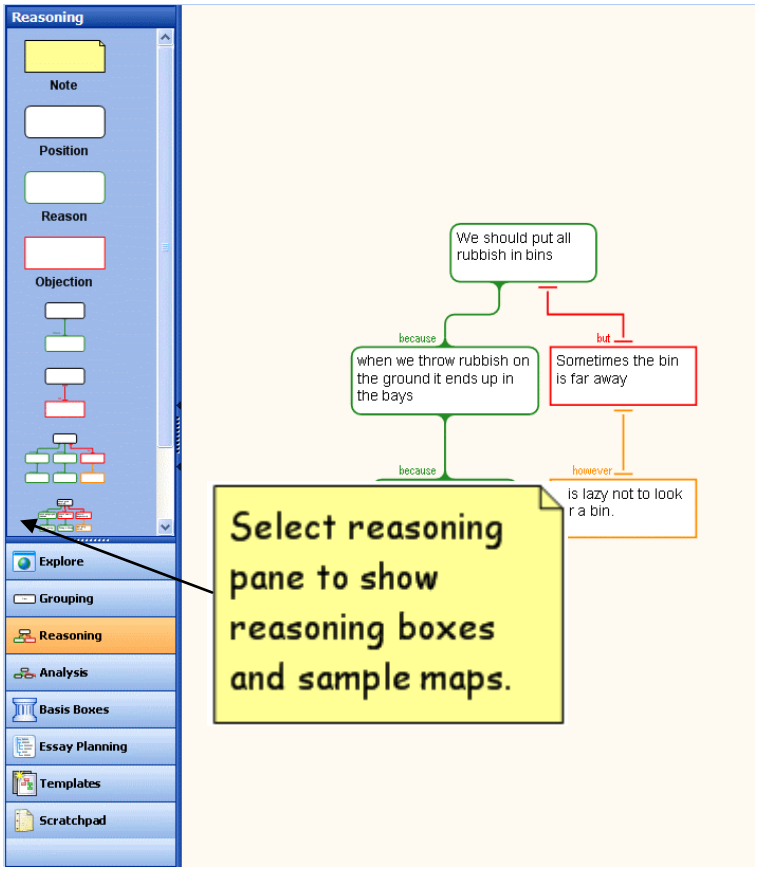
1. **Explore**: to view the web for ideas and information. You can use internal web browser to view the Rationale wiki, and online exercises.



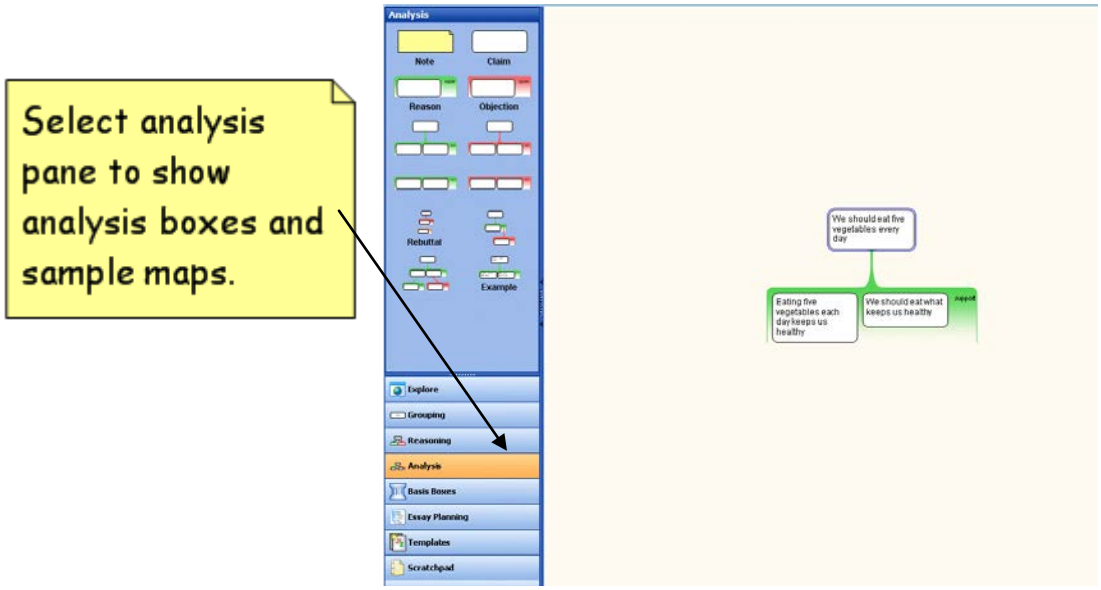
2. **Grouping**: to create grouping maps.



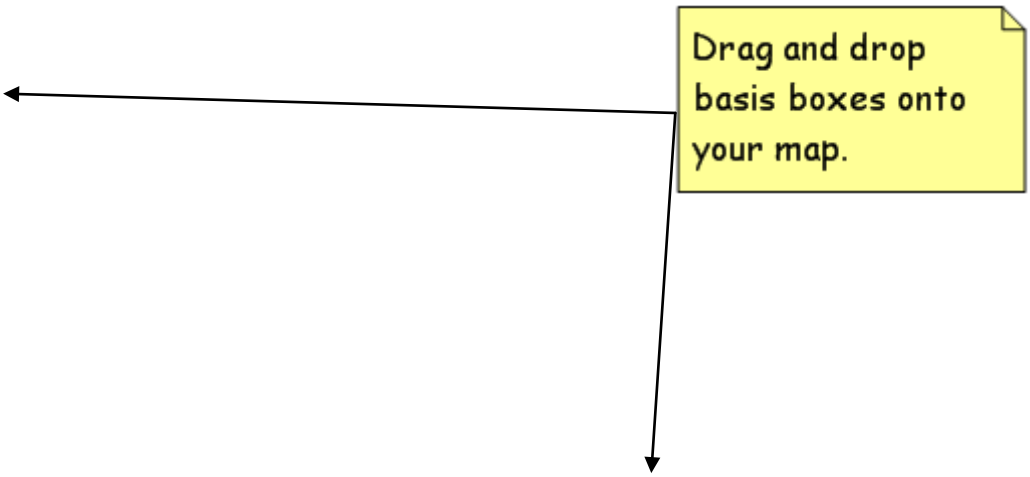
3. **Reasoning**: to create reasoning maps.



4. **Analysis**: to create more detailed argument maps.



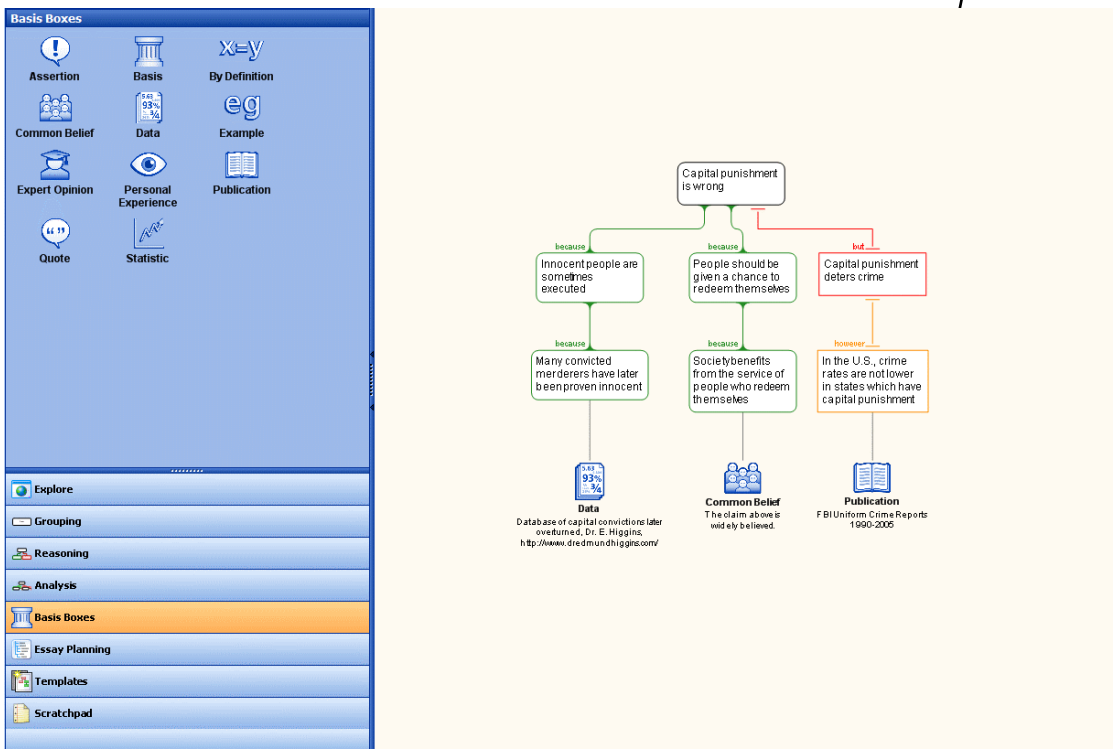
5. Basis Boxes: Add Basis boxes to add evidence to your argument map.

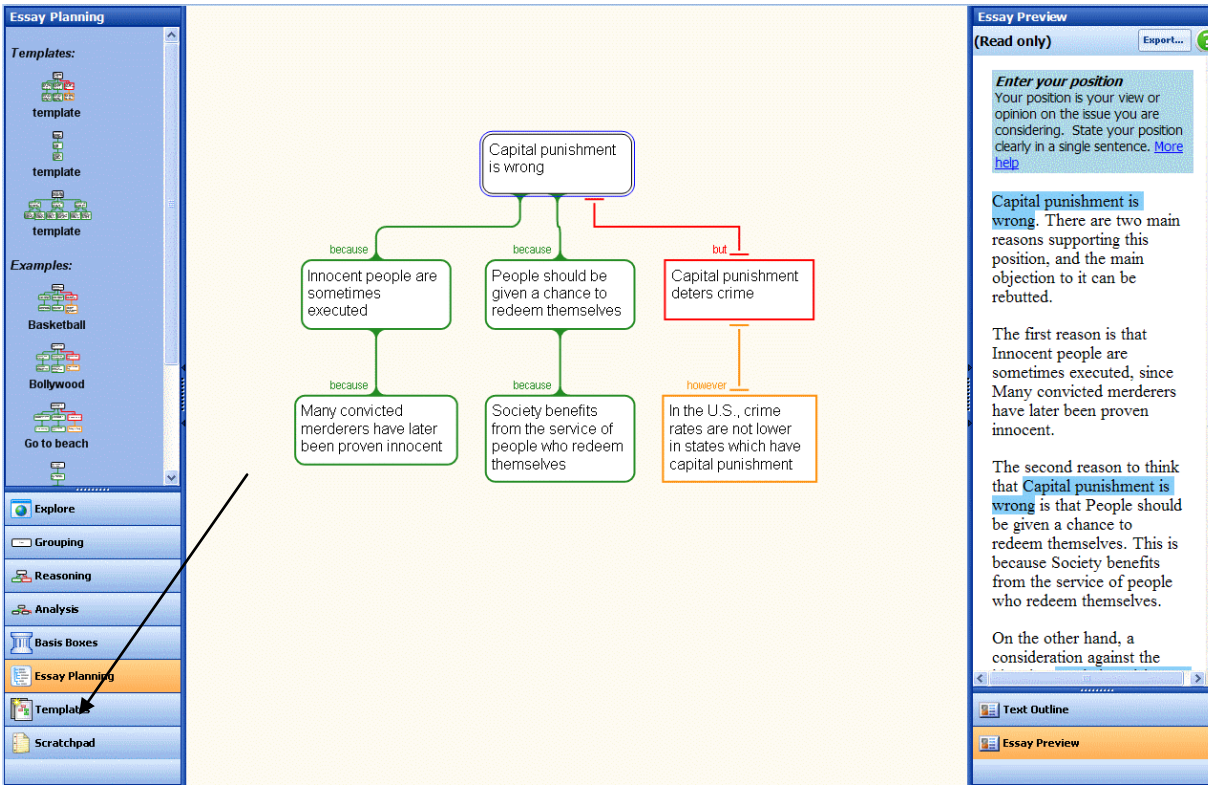


6. **Essay Planner**: to assist your students plan and write an essay.

This essay preview will appear.

Click here to display essay planner.





[Type your title here]

[Type your name here]

[Begin by giving some background. Why are you discussing this topic? Does it relate to someone else's discussion, for example a newspaper report?]

Capital punishment is wrong. There are two main reasons supporting this position, and the main objection to it can be rebutted.

The first reason is that Innocent people are sometimes executed, since Many convicted merderers have later been proven innocent. *[You can put a relevant example or an explanation of this here, or provide further evidence for it. Do you have a source, reference or a quote you can use?]*

The second reason to think that Capital punishment is wrong is that People should be given a chance to redeem themselves. This is because Society benefits from the service of people who redeem themselves. *[You can put a relevant example or an explanation of this here, or provide further evidence for it. Do you have a source, reference or a quote you can use?]*

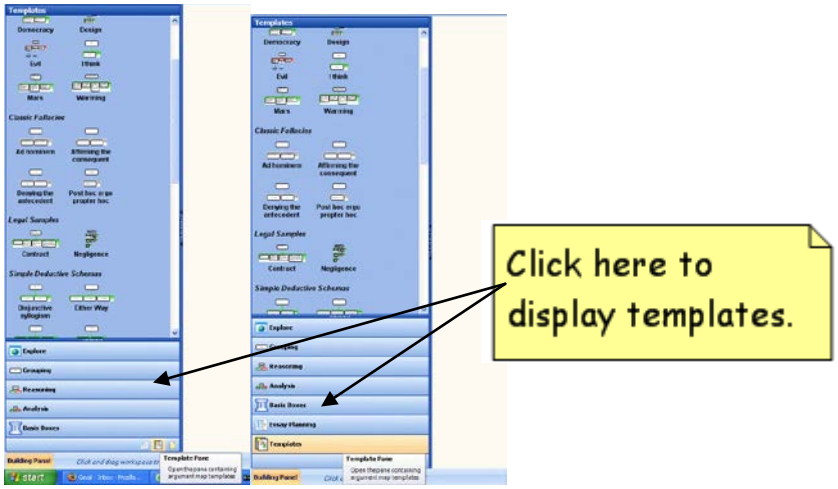
On the other hand, a consideration against the idea that Capital punishment is wrong is that Capital punishment deters crime. *[If you can think of someone who has made this claim refer to him/her. You may even provide a quote.]* This objection is not convincing, however, because In the U.S., crime rates are not lower in states which have capital punishment. *[You can put a relevant example or an explanation of this here, or provide further evidence for it. Do you have a source, reference or a quote you can use?]*

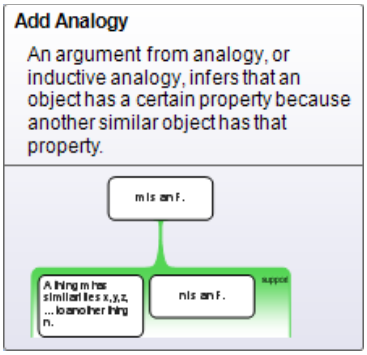
Based on this reasoning it is clear that Capital punishment is wrong. *[Can you think of any changes in circumstances that would make you reconsider your position? Describe them and explain why and how your position might change.]*

Clicking export will paste a text outline into your word processor.

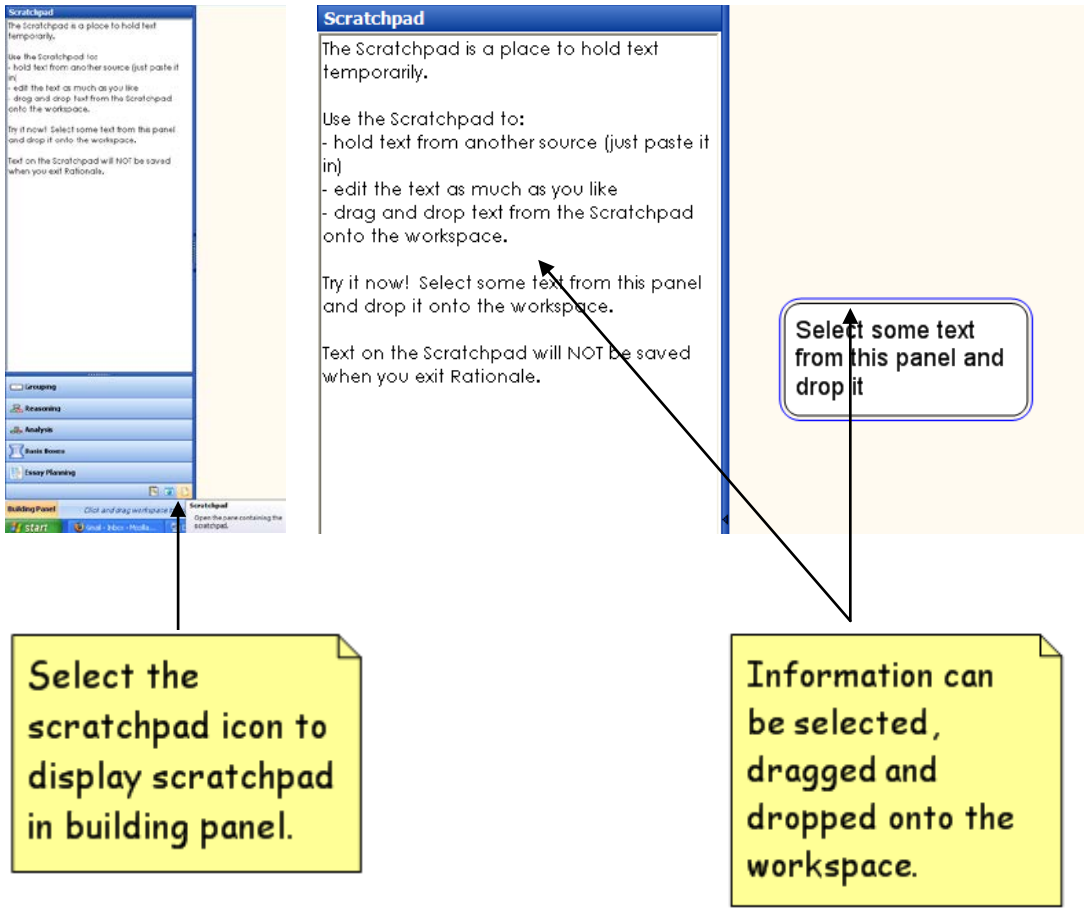
7. **Templates**: to use conventional logical schemas.

(Note that to view this pane you can click on the template pane icon or else expand the building pane by dragging the blue bar upwards).





8. **Scratchpad**: to copy text and drag ideas into a map.

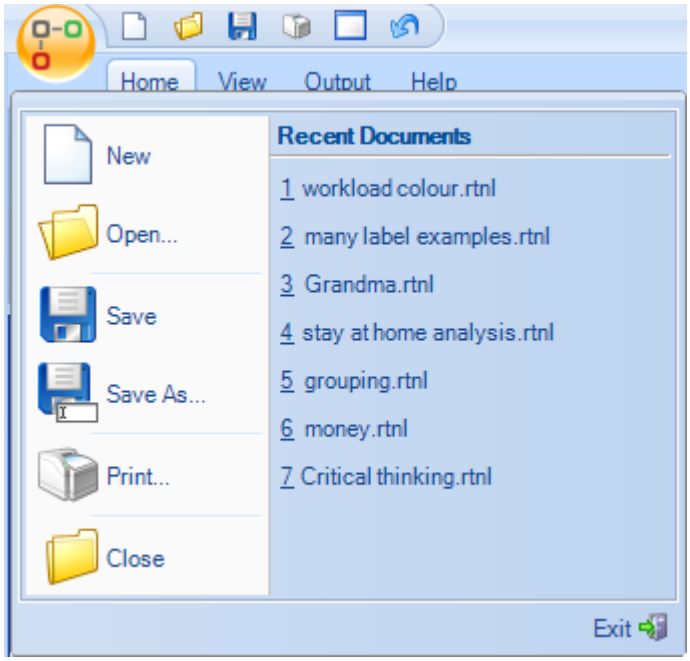


C. Ribbon task bar

The **"ribbon"** at the top is an innovative and user friendly way for you to choose an action.

Operations for Rationale™ are grouped into **menu tabs**, much like folders, and in each tab are a selection of actions you can perform.

In the top left corner is the ***Rationale™*** logo from which you can choose general operations. Likewise, you can create a new document, open a file, save, print or undo a function from icons above the menu tabs.

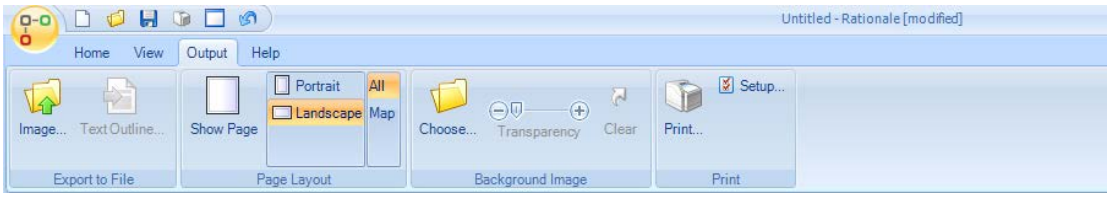


To choose each tab, simply click on the tab which represents the action you wish to perform.

Home includes creating, editing and evaluation functions.

View allows you to choose the visual display actions for your workspace, including show and hide functions, zooming and fitting maps to the workspace.

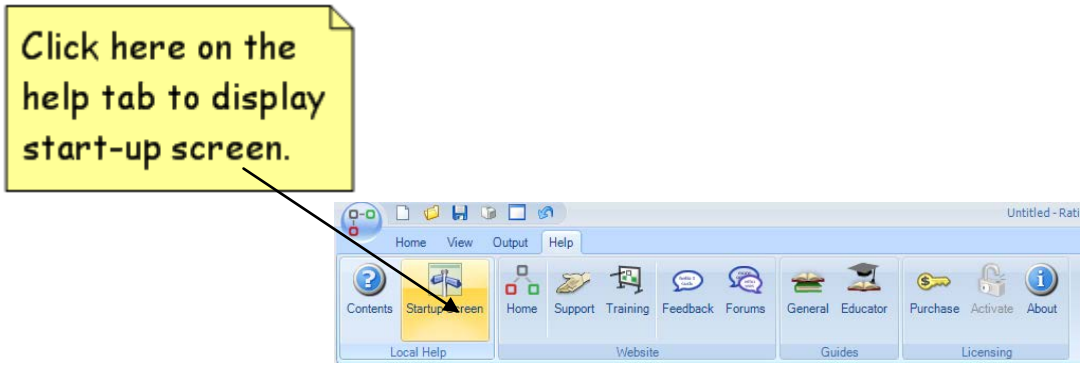
Output provides printing, page layout and exporting functions.

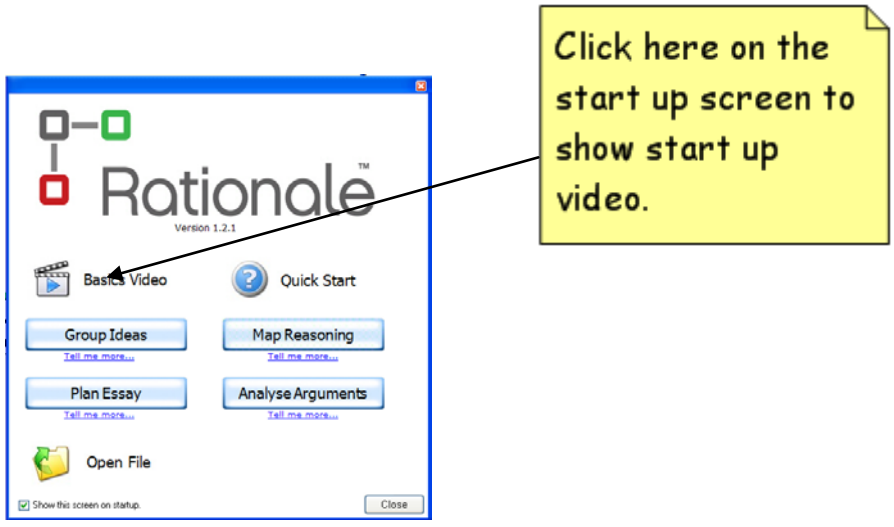


Help provides information about ***Rationale***™ and access to Help files, including local and online help functions.

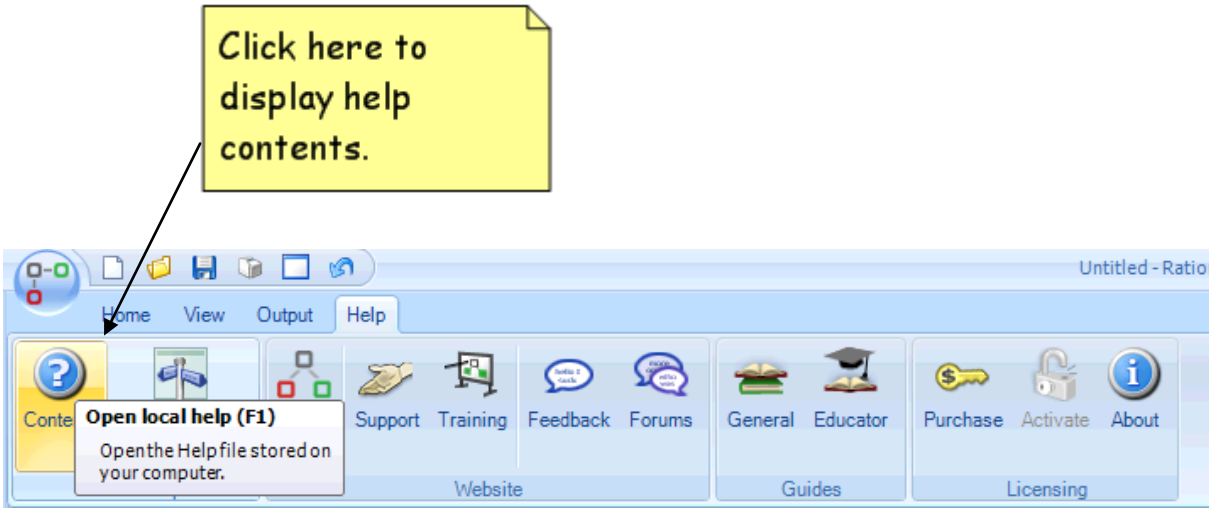
5.2. How do I get help using Rationale™ ?

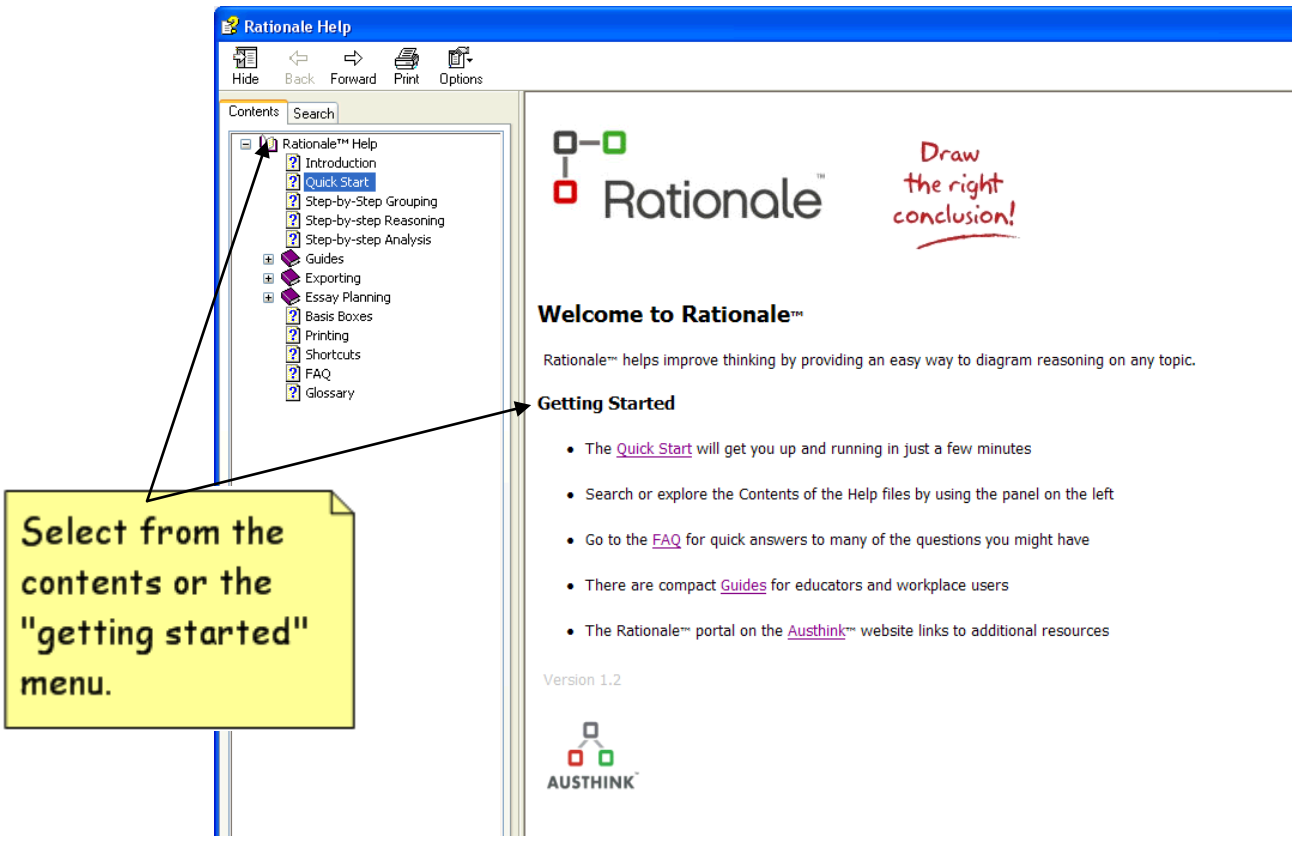
Rationale™ has a short startup video to get you started. This is available in the startup screen.



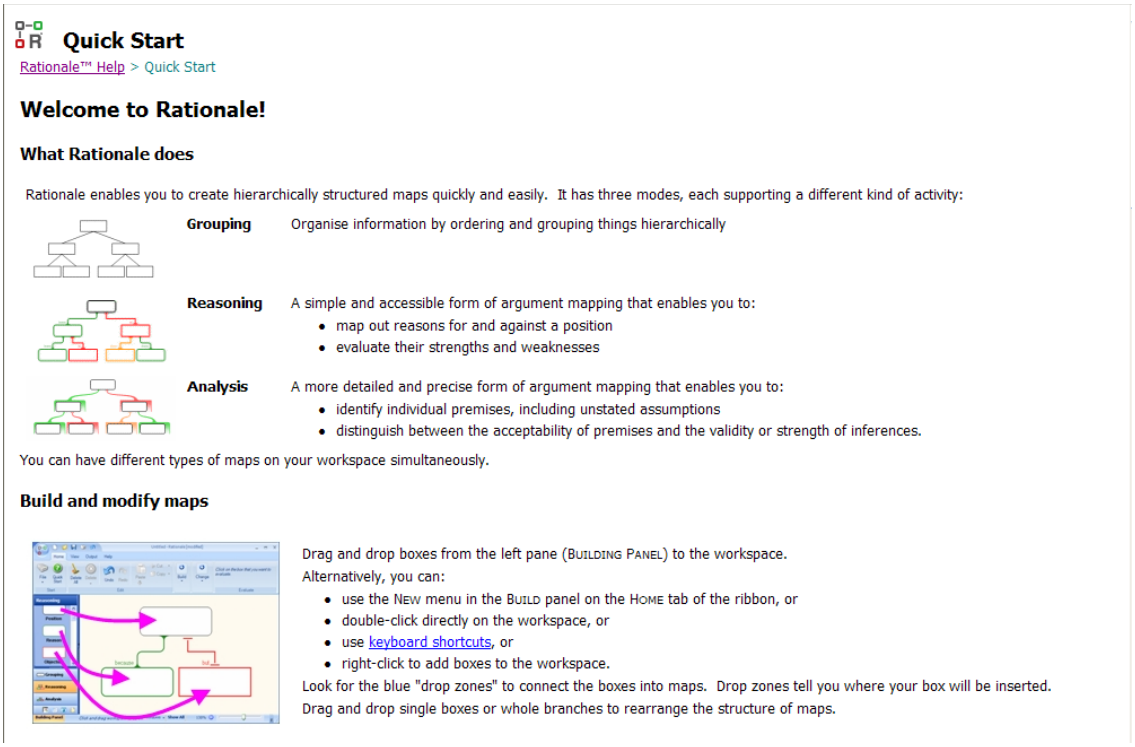


There are **Help files** accessible from the **F1** function key on the keyboard or from the **Contents** section on the Help tab.





In the **F1 Help files**, you will find a **Quick Start guide** to get you off to a quick and easy start.



Quick Start

Rationale™ Help > Quick Start

Welcome to Rationale!

What Rationale does

Rationale enables you to create hierarchically structured maps quickly and easily. It has three modes, each supporting a different kind of activity:

Grouping Organise information by ordering and grouping things hierarchically

Reasoning A simple and accessible form of argument mapping that enables you to:
- map out reasons for and against a position
- evaluate their strengths and weaknesses

Analysis A more detailed and precise form of argument mapping that enables you to:
- identify individual premises, including unstated assumptions
- distinguish between the acceptability of premises and the validity or strength of inferences.

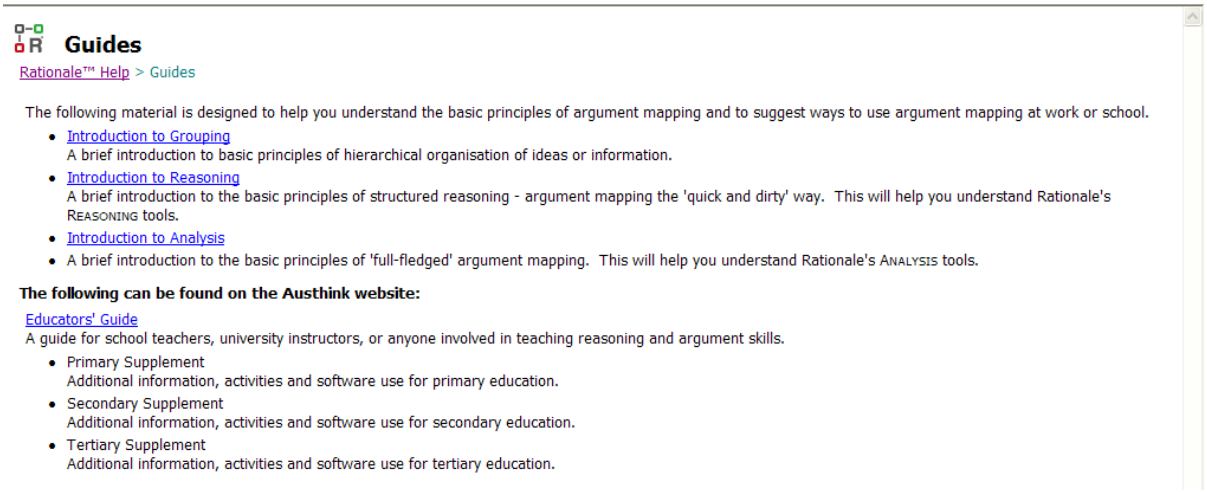
You can have different types of maps on your workspace simultaneously.

Build and modify maps

Drag and drop boxes from the left pane (BUILDING PANEL) to the workspace.
Alternatively, you can:
- use the NEW menu in the BUILD panel on the HOME tab of the ribbon, or
- double-click directly on the workspace, or
- use keyboard shortcuts, or
- right-click to add boxes to the workspace.

Look for the blue "drop zones" to connect the boxes into maps. Drop zones tell you where your box will be inserted.
Drag and drop single boxes or whole branches to rearrange the structure of maps.

In the **F1 Help files** you will also find a **Guides** section which will provide you with the basics of grouping, reasoning and analysis maps, together with links to the latest **Educator Guides** and supplements.



Guides

Rationale™ Help > Guides

The following material is designed to help you understand the basic principles of argument mapping and to suggest ways to use argument mapping at work or school.

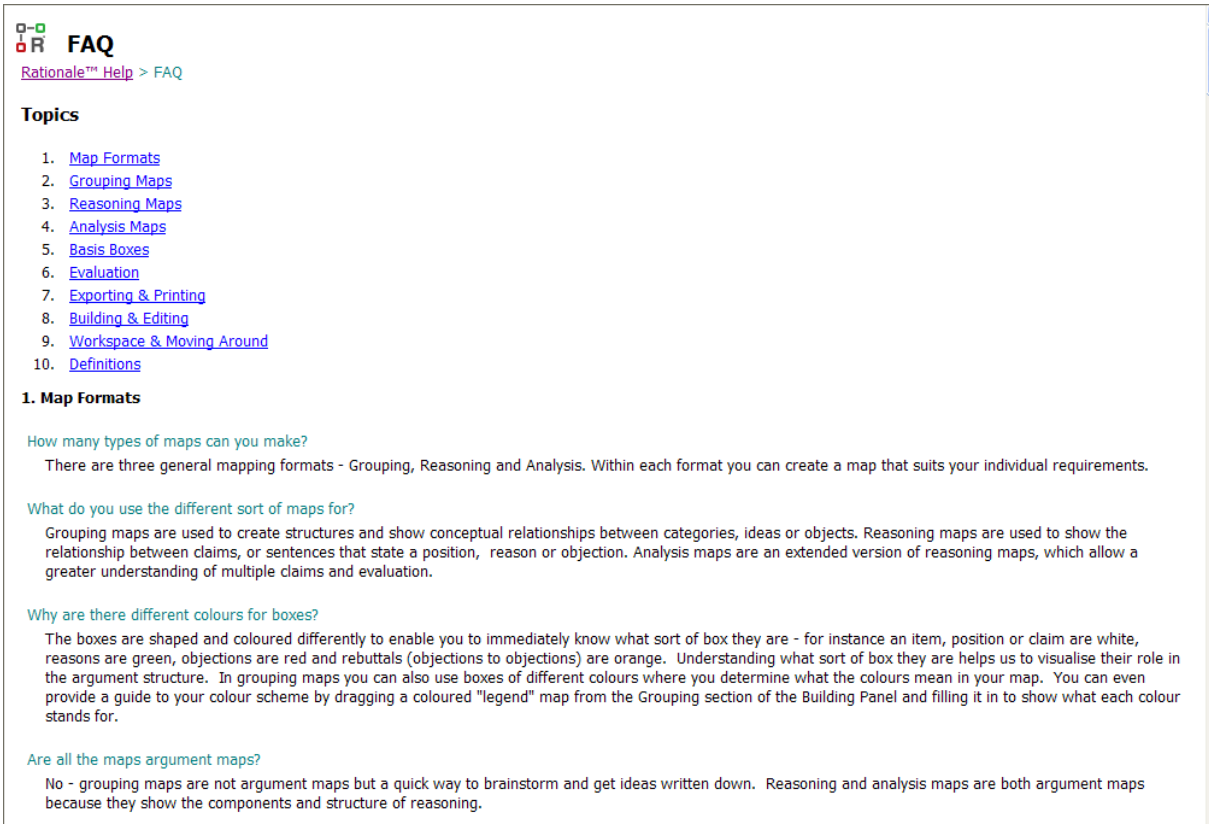
- Introduction to Grouping
  A brief introduction to basic principles of hierarchical organisation of ideas or information.
- Introduction to Reasoning
  A brief introduction to the basic principles of structured reasoning - argument mapping the 'quick and dirty' way. This will help you understand Rationale's REASONING tools.
- Introduction to Analysis
- A brief introduction to the basic principles of 'full-fledged' argument mapping. This will help you understand Rationale's ANALYSIS tools.

The following can be found on the Austhink website:

Educators' Guide
A guide for school teachers, university instructors, or anyone involved in teaching reasoning and argument skills.

- Primary Supplement
  Additional information, activities and software use for primary education.
- Secondary Supplement
  Additional information, activities and software use for secondary education.
- Tertiary Supplement
  Additional information, activities and software use for tertiary education.

If you have any questions you can look at our comprehensive **FAQ's (Frequently Asked Questions)** available on and off line which provide an array of answers to commonly asked questions. Simply browse through the questions or search by the headings.



FAQ

Rationale™ Help > FAQ

Topics

1. Map Formats
2. Grouping Maps
3. Reasoning Maps
4. Analysis Maps
5. Basis Boxes
6. Evaluation
7. Exporting & Printing
8. Building & Editing
9. Workspace & Moving Around
10. Definitions

1. Map Formats

How many types of maps can you make?

There are three general mapping formats - Grouping, Reasoning and Analysis. Within each format you can create a map that suits your individual requirements.

What do you use the different sort of maps for?

Grouping maps are used to create structures and show conceptual relationships between categories, ideas or objects. Reasoning maps are used to show the relationship between claims, or sentences that state a position, reason or objection. Analysis maps are an extended version of reasoning maps, which allow a greater understanding of multiple claims and evaluation.

Why are there different colours for boxes?

The boxes are shaped and coloured differently to enable you to immediately know what sort of box they are - for instance an item, position or claim are white, reasons are green, objections are red and rebuttals (objections to objections) are orange. Understanding what sort of box they are helps us to visualise their role in the argument structure. In grouping maps you can also use boxes of different colours where you determine what the colours mean in your map. You can even provide a guide to your colour scheme by dragging a coloured "legend" map from the Grouping section of the Building Panel and filling it in to show what each colour stands for.

Are all the maps argument maps?

No - grouping maps are not argument maps but a quick way to brainstorm and get ideas written down. Reasoning and analysis maps are both argument maps because they show the components and structure of reasoning.

6. More?

6.1 Training Up

To be a good critical thinker and teacher you need good resources - lots of examples, understanding and practice. **ReasoningLab** meets these needs by providing various forms of resources:

1. **Examples,** templates, activities and assessment ideas - available in the Educator Supplements for Primary, Secondary and Tertiary teachers.

2. **Help files** – in the Rationale software as described in 5.2

3. **Web resources** - at www.reasoninglab.com.

4. **FAQs** – available in the Help tab of Rationale or you can forward a query to info@reasoninglab.com.

5. **Map Library** – covering an array of subjects and levels. Available in our WIKI at our website www.reasoninglab.com.

6. **Training** – ReasoningLab provides workshops to meet your specific needs. These can be held at your school or externally with other teaching professionals. For queries see our website www.reasoninglab.com or contact info@reasoninglab.com

6.2 Keeping in Touch

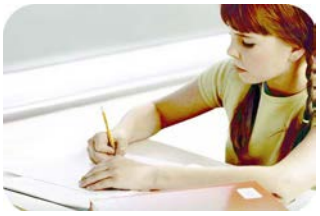
ReasoningLab wants you to feel **confident and prepared** for your thinking classes.

Any comments, suggestions, or wish list items are welcome

You may also like to contribute to the **argument mapping community** by sharing your student's maps, teaching ideas and comments on the Rationale Wiki at www.rationaleonline.com.

Get thinking™... and enjoy your classes!

View our website at www.reasoninglab.com to download a free **Educator Supplement** for examples, templates, classroom activities and assessment assistance.



Primary Educators' Supplement

Secondary Educators' Supplement

Tertiary Educators' Supplement