

# Thinking Routines in the EFL Classroom

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## アブストラクト

本論文では、thinking routines という概念と EFL の授業におけるその応用方法を紹介する。はじめに、EFL の授業で用いられている学習と思考の方法について明らかにする。次に、数種類の thinking routines を、EFL の授業で実際に導入した例とともに呈示する。最後に、さまざまな授業の状況下で thinking routines を使用することについて、意見や観察結果を論じる。本論文はカリキュラムの改革を目指すものではないが、授業での実際の教え方に注目し、それらを教員とさらに重要な学生にとって有益なものに改善する方法について考える。

## ABSTRACT

*The purpose of this paper is to introduce thinking routines and how they can be applied in the EFL classroom. First, the types of learning and thinking in the EFL classroom will be identified. Then different sets of thinking routines will be presented along with some examples of their use in an EFL course. Finally, a discussion section will focus on some additional thoughts and observations of using thinking routines in different classroom scenarios. The intention of this paper is not to revolutionize course curriculum. However, one should think about the aspects of classes being taught and how those aspects can be improved to benefit the teacher and most importantly the student.*

**Key words:** Critical Thinking, Thinking Routines, CLIL, EFL, Art

## INTRODUCTION

“What did they really learn?” I think that is a question that we, as professional educators, probably ask ourselves a lot about our own classes. Other questions may follow like, “Perhaps the student was just telling me what I wanted to hear?”

or “How can I motivate my students to challenge themselves and produce fuller and richer output?” This can be quite difficult teaching EFL. So, how can we get our students to express their own ideas without constant cues and hints from the teacher? We want our students to not only be accurate, but to be impressive in their thoughts. This may be difficult even for L1 speakers, let alone L2 speakers. But, there needs to be a way to bridge the gap for our students from the “I just want to pass” mentality to the desire to express their ideas in creative and interesting ways. It’s not enough for our students to know “how to say it,” they need to know “what to say and why”.

## **TRAINING AND BEYOND MEMORIZATION**

When it comes to classroom education many researchers and educational theorists have focused on the complexities of teaching and learning, and one observation is that classrooms can often be places of “tell and practice.” The teacher tells the students what is important to know or do and then has them practice that skill or knowledge. And teachers often judge their own effectiveness based on how well the students absorb of the material and the ability to reproduce it on a test.

It seems that in this system, everyone involved, the administration, the teachers, the students, everyone, equates good test scores as evidence of learning. However, this type of surface learning, which in EFL focuses on memorization of vocabulary and grammar exercises, often through rote practices, isn’t learning, but it’s actually training. In a way, teachers are training students to become effective test takers rather than successful learners of English. So, how can we produce successful learners of English?

First, there needs to be a shift in the concept of learning language from “learning to recall information” to “learning to understand.” To put it simply, understanding is the result of thinking, and our understanding of new language continually evolves through the thinking process. Understanding isn’t something that happens before application, analysis, evaluation or creation, but is the outcome of these processes. What this means is that in order to develop an understanding of how to use a language, a learner must engage in authentic intellectual activity. That means using English to solve problems, make decisions,

and perform other thinking skills. These are the things that make a task relevant to students' future English use.

For example, there is the common English lesson of asking for directions on the street, and in some textbooks there is a nice script and a map for students to follow and practice. Well, authentic intellectual activity doesn't mean to mirror a real life situation as a task in the classroom. It refers to the actual thinking involved in that real life situation. The focus shouldn't be about the script, which often falls apart in the real world, but it should focus on the thinking actions needed in a particular situation.

So rather than seeing learning language as the tell and practice of information, we must recognize the fact that learning to understand English occurs as a result of our thinking and active sense making. Our role as teachers needs to shift from the delivery of information to fostering students' engagement with ideas and opportunities to think in English. And as an added benefit, when there is something important and worthwhile to think about and a reason to think deeply, students experience a kind of learning that sticks with them. Unlike in tell and practice type classes, when students put information into short-term memory and soon forget it after the exam is finished.

To improve lessons and insure that what students are learning lasts beyond the classroom, there is a need to identify the key ideas and concepts with which students must engage, struggle, question, explore, and ultimately build a deeper understanding. Once these targets are identified, then educators can start to build classes with opportunities for thinking and using English in a variety of ways. The more opportunities that are created, the better the chances students can really be successful learners of English. But before identifying key ideas and concepts, it's a good idea to look at the kinds of thinking that are essential in the learning process. To describe these ways of thinking, we're going to use the term "thinking moves" as described by Ritchhart, Church, and Morrison (2011) in the book *Making Thinking Visible*.

These thinking moves play a vital role in the development of understanding. By using these thinking moves as a base we can construct avenues for our students to be creative, intelligent, and productive in their use of the new language they are learning. This is a way to help give students autonomy in their choices and build

motivation. Here is where teachers can show students the “how, what and why” when using English. Researchers have identified these thinking moves.

1. Observing closely and describing what’s there
  - This move answers the question “What do you see” and “What is there?” This is an excellent first step to initiate our understanding of something new. We need to be able to identify and go into detail about the parts and features of things so we can analyze it better. It is also important to slow down our observations and not to make quick assumptions.
2. Building explanations and interpretations
  - This move helps to take our observations and begin to form possible ideas of what we are encountering. This move comes in the early stages of understanding. We ultimately want to answer the question “What is really going on here?”
3. Reasoning with evidence
  - When building an explanation we rely on evidence or facts to support our position. By providing such evidence our positions become stronger and more accurate. We can also defend ourselves from conflicting ideas or opinions with evidence. We want to be able to express “Why do we think so?” in a clear and concrete way.
4. Making connections
  - This move helps us to answer the question “How does this fit into what we already know?” When we encounter anything new, we draw on our past experiences. We use this past knowledge to help make sense of what we are encountering. Making connections can also help us organize our ideas with new or added information.
5. Considering different viewpoints and perspectives
  - If we only look at new ideas or situations from a single perspective, then our understanding can be limited or even biased. We need to consider what the other angles or stories are of an event, concept, or situation. Awareness of different perspectives gives us a more robust understanding.

6. Capturing the heart and forming conclusions
  - By capturing the heart of a concept, procedure or event ensures that we understand its essence. We want to know what is at the core or center of what we are encountering. We want to make sure we haven't lost the big picture. This move occurs in the later stages of understanding.
  
7. Wondering and asking questions
  - We can tell how engaged our students are by their questions. Asking questions is an ongoing part in developing our understanding. We can tell what students are curious about when they are learning something new and focus our attention to filling in the gaps. When questions are asked, they are used to help solidify the student's understanding.
  
8. Uncovering complexity and going below the surface of things
  - Rather than look for the easy or short answer, we want students to identify the complexity in events, stories, or ideas. To do so we need to dig deeper and get more detail or input. By doing so, our understanding becomes richer and better. In addition to new and deeper knowledge that is gained, output can become more intriguing and clearer.

This list of Thinking Moves is a good starting place to help teachers and students learn by developing their understanding in the EFL classroom. By being clearer in educators' own minds as about the kinds of thinking we want students to do, teachers can be more effective in instructional planning. It also allows teachers to target and promote those kinds of thinking in their own questioning and interaction with students.

## THINKING ROUTINES

A way to help guide students' thinking in the EFL classroom is by using "*thinking routines*." Thinking routines are simple tools, used over and over again in the classroom, that support specific thinking moves. They are structures through which students collectively as well as individually initiate, explore, discuss, document and manage their thinking. And they are patterns of behavior adopted to help use the mind to form thoughts, reason, or reflect on what students encounter while learning.

By using the eight thinking moves stated earlier as a starting point, teachers can create their own thinking routines to fit different situations during the lesson. When designing a thinking routine, a key point is it should be easy to learn and remember. It should be named so students can identify and recognize it quickly. Within the routine there should be specific steps to help direct or scaffold a students thinking.

**Thinking Routines Matrix**  
From the book *Making Thinking Visible* by Ritchhart, Morrison & Church. (Spring 2011)

Routine	Key Thinking Moves	Notes
<i>Routines for INTRODUCING &amp; EXPLORING IDEAS</i>		
See-Think-Wonder	Description, Interpretation & Wondering	Good with ambiguous or complex visual stimuli
Zoom In	Description, Inference, & Interpretation	Variation of STW involving using only portions of an image
Think-Puzzle-Explore	Activating prior knowledge, wondering, planning	Good at the beginning of a unit to direct personal or group inquiry and uncover current understandings as well as misconceptions
Chalk Talk	Uncovers prior knowledge and ideas, questioning	Open-ended discussion on paper. Ensures all voices are heard, gives thinking time.
321 Bridge	Activates prior knowledge, questioning, distilling, & connection making through metaphors	Works well when students have prior knowledge but instruction will move it in a new direction. Can be done over extended time like the course of a unit.
Compass Points	Decision making and planning, uncovers personal reactions	Solicits the group's ideas and reactions to a proposal, plan or possible decision.
Explanation Game	Observing details and building explanations	Variations of STW that focuses on identifying parts and explaining them in order to build up an understanding of the whole from its parts and their purposes
<i>Routines for SYNTHESIZING &amp; ORGANIZING IDEAS</i>		
Headlines	Summarizing, Capturing the heart	Quick summaries of the big ideas or what stands out
CSI: Color, Symbol, Image	Capturing the heart through metaphors	Non-verbal routine that forces visual connections
Generate-Sort-Connect-Elaborate: Concept Maps	Uncovering and organizing prior knowledge to identify connections	Highlights the thinking steps of making an effective concept map that both organizes and reveals one's thinking
Connect-Extend-Challenge	Connection making, identify new ideas, raising questions	Key synthesis moves for dealing with new information in whatever form it might be presented: books, lecture, movie, etc.
The 4 C's	Connection making, identifying key concept, raising questions, and considering implications	A text-based routine that helps identifies key points of complex text for discussion. Demands a rich text or book.
Micro Lab	A protocol for focused discussion	Can be combined with other routines and used to prompt reflection and discussion
I used to think	Reflection and metacognition	Used to help learners reflect on how their thinking has shifted and changed over time.
<i>Routines for DIGGING DEEPER INTO IDEAS</i>		
What makes you say that?	Reasoning with evidence	A question that teachers can weave into discussion to push students to give evidence for their assertions.
Circle Viewpoints	Perspective taking	Identification of perspectives around an issue or problem.
Step Inside	Perspective taking	Stepping into a position and talking or writing from that perspective to gain a deeper understanding of it.
Red Light, Yellow Light	Monitoring, identification of bias, raising questions	Used to identify possible errors in reasoning, over reaching by authors, or areas that need to be questioned.
Claim Support Question	Identifying generalizations and theories, reasoning with evidence, counter arguments	Can be used with text or as a basic structure for mathematical and scientific thinking.
Tug of War	Perspective taking, reasoning, identifying complexities	Identifying and building both sides of an argument or tension/dilemma
Word-Phrase-Sentence	Summarizing and distilling	Text-based protocol aimed at eliciting what a reader found important or worthwhile. Used with discussion to look at themes and implications.

Here is a matrix of different types of thinking routines. These are broken up into three stages. The first set of thinking routines is used to introduce and explore ideas. The second set is used to synthesize and organize ideas, while the third set of thinking routines can be used to dig deeper into ideas. Note the different thinking moves used in each routine and the goal of each.

It is helpful that these routines are flexible, meaning that they can be used by students individually or in groups, and they can be used in a variety of contexts. Another aim of thinking routines is the development of the habits of the mind and thinking dispositions that will serve students as learners both in our current classrooms and in their future studies and daily interactions.

One of the things to notice when looking at thinking routines is they are

designed not to elicit specific answers but to uncover students' nascent thinking around the topic. By doing so we can guide them better in understanding of new language and concepts they encounter.

## EXAMPLES AND APPLICATION

Thinking routines can be used in a variety of ways in an EFL lesson. In this section of the paper I will introduce a few thinking routines, how students applied them, and a brief critic of some examples. Now, one of the ways I've used thinking routines is to prepare students to have a discussion about a particular academic subject, and in this lesson sample, I'll show some thinking routines I've used to generate ideas for small group discussions about paintings from the Baroque. I understand that art history is not everyone's cup of tea, but thinking routines can help students generate ideas in any subject area.

From studying STEM subjects to humanities, learning thinking routines can be a valuable asset for students. It is my hope that my students are able to transfer the ideas and application of thinking routines into other academic pursuits as well.

Here is a little background for this sample lesson. Students are working in small groups of three or four. Each student chooses a painting to discuss. There is a sample page from the students' workbook. You'll notice an image with some details and text along with 4 task areas, A, B, C, and D. Students are asked to write their ideas for all tasks before the group discussion begins. Individually, they will write down their thoughts and questions by using thinking routines for each task.

For example, in Task A students may use this thinking routine, See-Think-


**Maids of Honor**

**A.**

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**B.**

- 1.
- 2.
- 3.



- Diego Velázquez
- 1655
- 278 x 276 cm
- Museo del Prado, Madrid, Spain
- oil on canvas
- Baroque

This painting's strange composition creates an uncertainty between the viewer and the figures. Some people look out of the canvas towards the viewer, while others interact among themselves. The young Margaret Theresa is surrounded by her entourage: her maids, a chaperone, bodyguards, dwarfs, and a dog. Velázquez also paints himself in the painting on the left. He is looking out towards the viewer. There is also a mirror in the background with two figures. They are Margaret's parents, the King and Queen of Spain.

**C.**

- R.
- A.
- C.
- K.

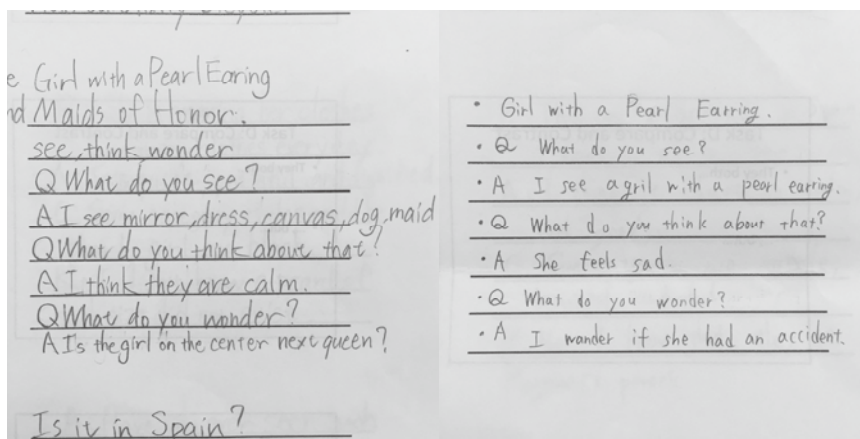
**D.**

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Wonder. You can find this thinking routine in the introducing and exploring stages of the thinking routine matrix you saw earlier. There are three questions for See-Think-Wonder. They are: *What do you see*, *What do you think about that*, and *What do you wonder?* The question, “*What do you see*,” is based on the thinking move: observing closely. “*What do you think about that*,” is based on the thinking move: explaining and interpreting. With “*What do you wonder*,” it is based on the wonder and questioning thinking move.

Here are some examples of my students’ use of See-Think-Wonder. This student chose *Maids of Honor* by Velázquez (left). You can see this student’s thought process from the whole painting to one particular part. Another student chose *Girl with a Pearl Earring* by Vermeer (right). I liked how this student tried to imagine the scenario of the painting. You may also notice there is a nice flow or scaffold from the see to think to wonder. This is a great thinking routine to start with your students. It can be used with a variety of contexts. If you want to use See-Think-Wonder in a text exercise, instead visual based, change the “see” to “read,” for audio change it to hear.

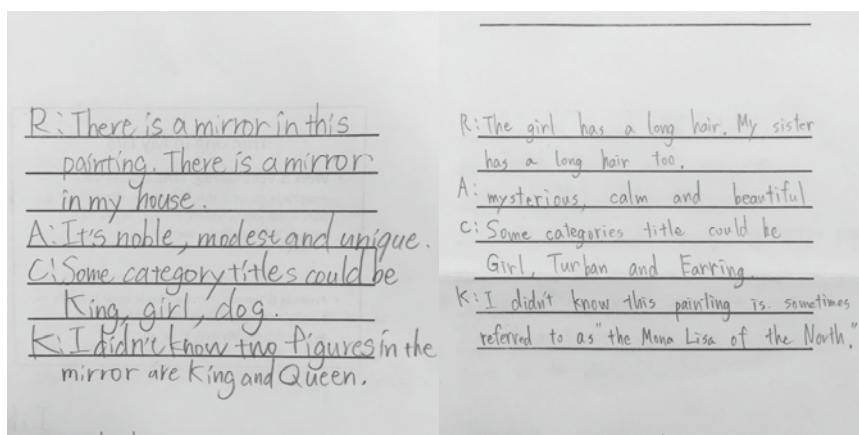


After Task A, students read the details and text and write some curious questions they have about the image or artist in Task B. This is supported by the question and wonder thinking move. Now at this point, students have a lot of information to consider. To help students organize their ideas, and reflect on what they have just observed and read, students use this thinking routine, it’s called, R.A.C.K. Your Brain. The first question here is *How does this image relate to you?* This question asks students to relate or connect any aspects of the image or



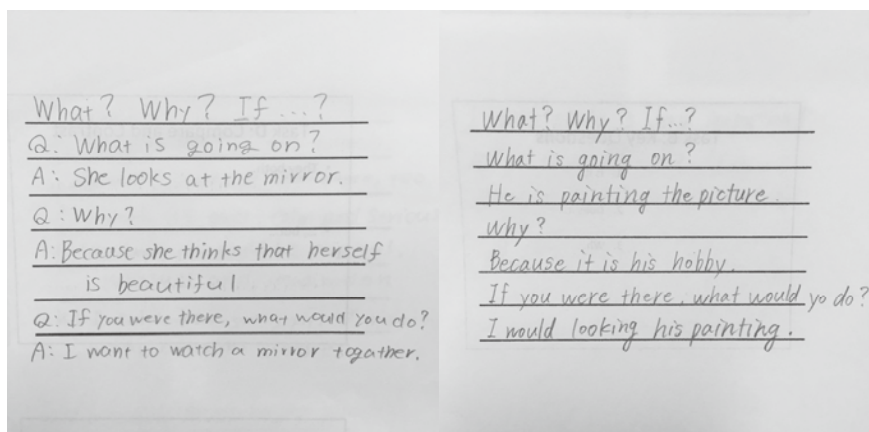
information from the text to experiences in their own lives. The next questions are *What are three adjectives to describe this image* and *What are three categories for this image*. Here, students observe what they encounter and use new words to describe and classify. *What new knowledge do you have about this image* asks students to identify any important ideas they have learned about their painting.

Let's take a look at some examples using R.A.C.K. Your Brain. I found that my students have the most trouble with making connections when looking at art. Again, looking at Maids of Honor a student relates a mirror in this room to one in her house (left). That's decent, but a student looking at Girl with a Pearl Earring stretches to make a connection with a sister. Also, I can tell the effort from the student by looking at their ideas. For example, in this K for knowledge on the right, I can see the student really got into the reading.



Finally in task D, students dig a little deeper by choosing another thinking routing. For example, this is What-Why-If. The three questions are: *What's going on*, *Why*, and *If you were there, what would you do?* The question, "*What's going on*," is based on the thinking move, observing. "*Why*," uses reasoning with evidence. "*If you were there, what would you do*", is directed at the viewpoints and perspective thinking move.

Here are some more examples from my students using What-Why-If. After reading the text, student looking at Venus and her Mirror by Velázquez (left) knows that Venus would often look at herself in the mirror. Or in The Art of Painting by Vermeer, the student knows there are secret messages, so he may be interested in seeing what the artist is painting.



From there, students work in groups and have a discussion of what they thought about their painting. They use the questions from the thinking routines to start out, and then they use conversation gambits to help the discussion flow and grow. Each student takes their turn, creating multiple opportunities to use the language in an authentic intellectual activity.

My experience using these thinking routines in my classes are mostly positive. Students seem to like the challenge of coming up with ideas and treat the questions like a puzzle. However, from the examples you could see, some students are interpreting the questions differently or their ideas are not that strong. So while students are writing down their ideas, I'll float around the classroom looking for stronger examples. When I find one, I ask them to write their ideas on the board. Then before students start their small group discussions, I'll point out their ideas on the board. Students are asked to copy these examples so they can look back on them for future discussions. I think that if students are having trouble coming up with their own ideas or questions, it is helpful for them to see the thoughts of their peers from past examples.

## **ADDITIONAL THOUGHTS AND OBSERVATIONS**

I have been using thinking routines in my lessons for a few years now and I'd like to share with you some of my observations. Thinking routines break complex tasks into simpler parts, so students are able to do more complex things than they might expect. This also reduces anxiety. Once students know the routine, they aren't anxious about what is coming up. With thinking routines, there is a focus on

ideas and questions, not answers. As students work in groups, they will come up with ideas that are different from other groups using the same routine. The realization that it's OK to have different answers helps students feel more relaxed and they are more willing to express their ideas in the class.

Even if the same routines are repeated, students feel it is challenging. This allows for repetition that doesn't bore students. It also helps students build a better understanding of the questions used, by learning the different types of answers they may produce. This can be considered a form of perfect practice, as defined by Anders Ericsson in *Peak* (2016)

Using thinking routines is different from what they have done in English classes before. Students make a lot of assumptions about what to do and how to do it from their previous experience. In the case of English education, they are still thinking of test prep when they study English, so their way of studying is not effective for building the ability to communicate in English. By doing something different from what they are used to, it forces students to break away from their automatic responses, and they begin to pay closer attention to what is going on in class. While doing thinking routines, students are actively talking with each other to help each other with grammar and vocabulary. This creates an atmosphere of participation, and it gives students agency. Additionally, figuring out how to apply the language they know is exactly how they will use their English in the real world. That is by activating their prior knowledge and then connecting it to new things that they encounter.

Finally, it is easier to give feedback to students who are using thinking routines. As the teacher, you can see where students made mistakes and can give them targeted advice to improve their thinking processes. It's a lot like math education where teachers always say "show me your work". With thinking routines, students need to show what they are thinking.

I feel these observations have encouraged me and other teachers to focus in new directions while planning course curriculum and how we teach and interact with our students in the classroom. I look forward to our continuing work with EFL students and to help them become better thinkers and overall greater learners of English as a Foreign Language.

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