Scaffolding by Enriching the Sequencing Dynamic (University) Donna Lee Fields, Ph.D.





theory behind the scaffold...

Knowing the sequence of events in a text, story, video, laboratory experiment, sports competition, musical composition, preparation of art materials, etc. is an essential skill for students. This is an integral part of Pre-school and Lower-Primary school lessons, but it is often forgotten in higher grades.

Sequencing is a concept that needs to be repeated throughout the education process. We need to intentionally give our students the opportunities to be able to recognise and express sequences, and we need to provide the phrases they can use to clarify the ordering of events. It might be motivating to know that studies show that students are able to recall information more accurately if they've been schooled in sequencing.

The art of ordering is a skill that requires critical thinking as it obligates the students to see both sides of an issue, be open to new evidence, and deduce and infer conclusions from available facts.* Inferential reasoning enables students to construct new knowledge by considering, connecting past knowledge to new. If we want to delve into the biology of the skill, you might be interested to know that the dynamic activates the hippocampus, which is the part of the brain responsible for retaining short-term, long-term and spatial memory. So, the more we give students the opportunity to develop this part of the brain, the more we are aiding them in strengthening neuron connections.

In this scaffold, students have a platform to not only review the concept of sequencing, but also to use creative skills in filling in events that did – or might have – occurred between the given information included in the activity.

In other words, our students are encouraged to develop inferential reasoning. They order events that have happened, and then fill in missing information that is insinuated, or that they imagine happened - through educated inferencing.

Sequencing events in course work involves comprehension strategies that include repetitive sequencing phrases such as: 'Initially,' 'Eventually', 'Finally', etc. If practiced regularly, these phrases automatically trigger a sense of time and order and give students clues as to the trajectory of whatever is being addressed.

This scaffold will show how we can naturally use our course materials - indexes, instructions, timelines, images, etc. - to raise comprehension of material and reinforce sequencing skills. Using a social science lesson about peaceful revolution and including the life of Ghandi, we'll focus on the phrases: 'In the beginning...', 'Next', 'In the end...'; however, depending on the lesson you are about

to present, you may decide to introduce other phrases. The list below will help you choose.

Step by step:

- 1. Choose the information to use in this activity (15-20 images from a text, a video, the instructions to a laboratory experiment, the steps to take to prepare materials in an art class, the notes to a piece of music your students are going to learn, etc. (If you are going to use a video you can do 'Capture Screen' to get the 15-20 images to use for this activity.)
- 2. Place the images out of order on an A4 piece of paper as handouts for students.
- 3. Make the chart below visible and add any other sequencing phrases you'd like your students to use.**

Beginning	Middle	Interruption	Ending
In the beginning	Soon	Suddenly	Finally
First of all	Meanwhile	Unexpectedly	At last
Once upon a time	Then	All of a sudden	In the end
One day	After that	However	Lastly
First	Later		By the end
Firstly	After awhile		At this point
To begin	Next		Eventually
First of all	Second		
To start off with	Third		
Initially	Secondly		
To begin with	Thirdly		
	And		
	Furthermore		
	Further		
	Moreover		
	In addition		
	Also		
	Subsequently		
	After		
	Before		

4. Create a PPT with the same images so that you can begin the activity by modelling possible conversations students have together.)

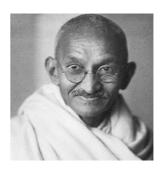
5. Using student volunteers, model the activity. In this case we've chosen images of Gandhi from his youth through adulthood, with captions underneath so that students have enough information from which to form sentences and accurately sequence his political evolution.



Gandhi was born in 1869 in Gujarat, India.



Gandhi became a lawyer and began to fight for civil rights.



Gandhi won independence for India.

Example:

Student 1: **In the beginning**, Gandhi was born in 1869, in Gujarat, India. Student 2: **Subsequently**, Gandhi became a lawyer and began to fight for civil

rights.

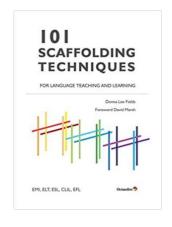
Student 3: **In the end**, Gandhi won independence for India.

- 6. *Formative assessment:* Project the images in a random order and ask groups to sequence them, using the three key phrases they've been practicing.
- 7. *Reflection*: Students write 50-75 words on how the activity has helped them get to know the information. (*Example*: I believe the activity helped me to understand peaceful revolution because Gandhi embodied this philosophy. I liked being able to speak about Gandhi's life and use sequencing phrases. This helped me understand when events happened and how one affected the other.')
- 8. Begin the unit.

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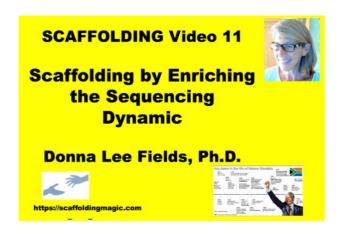
Find more scaffolds here:





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video explanation of scaffolding activity...

Hi. I'm Donna Fields and welcome to CLIL Scaffolding 11. It's a series of webinars designed to give you support for using scaffolding in your lessons. Today we're going to use scaffolding technique #104. One hundred and one more of these techniques can be found in my book: 101 Scaffolding Techniques for Language Teaching and Learning, that has also been translated into Spanish.

We can use Jerome Bruner's definition of scaffolding: a technique or activity that targets skills students need to learn difficult tasks.

Today's objective is to show how sequencing can be used to develop inferential reasoning. I'm going to show you in a primary and secondary lesson and you can use it at any level you need it for.

Let's start with a secondary literature lesson. Your students need to read the autobiography of Nelson Mandela. One way to help them with the scope of time that is covered in the book is by choosing key moments in the author's life, making them

visible, and letting the students order them sequentially. They talk about these key moments, and *also* what might have happened in between these benchmarks - both in history and in the author's life.

So, what do we do?

- Choose 8-10 key moments in the text we're going to use with our students
- Find images that represent these key moments
- Place both in textboxes
- Include a very short caption under each image explains it very briefly
- Print out a set for each pair of students in the class (using coloured paper helps keep the material organised. It's different from the worksheets the students get, it changes the atmosphere of the lesson, it's easier to keep the sets separate, and colours are wonderful!

In pairs, students put the images in order, according to the information in the captions. They then verbalise what they see, using the captions - and expanding on them. Here's an example:

A pair of students might have this exchange with the first two images:

Student 1: Nelson Mandela was born on the 18th of July, 1918 in Transkel, South Africa, South Africa is on the continent of Africa.

Student 2: Nelson Mandela's father died in 1930. So he was 12 years old. He was brought u by the king of his tribe, Jongintaba...I can't pronounce his name!

In both instances, the little bit of information you've given is a scaffold in itself - you've given the students the confidence to dare to make complete sentences and also to add some information by themselves. By saying 'I can't pronounce his name' is a valid addition. The student is communicating a thought aloud in a language that probably isn't her home language.

After the students have verbalised the information literally, you can now encourage them to use inferential reasoning to make suppositions about what happened - either in the author's life or in history in general - between the key moments they have represented in front of them. You can use questions like these that provoke deeper thinking:

- What happened in between the dates mentioned?
- What affect do you think Mandela's surrogate father had on him, being a tribal leader and king?
- What schooling did he probably have due to the fact that he opened his own law firm?
- What do you think led him to begin a campaign of civil disobedience?
- Why do you think the F.W. de Klerk won the Nobel Peace Prize with Mandela?
- What type of president do you suppose Mandela was?
- What do you think he did after being president?

To answer them, they need to pull from their knowledge of historical events and human nature in general.

An example of this further discussion might be:

Student 1: Nelson Mandela was brought up by the king of his tribe and opened the first black law practice in South Africa in 1952. Maybe he had the courage to open the first black law practice in South Africa because of the courage the king gave him

Student 2: Maybe he became a lawyer because he learned from the King that to be a leader it's important to know the law.

Now you can all begin the autobiography and your students will be more invested in the causes and consequences of Mandela's life given their own internal and verbal processings.

Let's try it with a primary Social Science lesson. Your students are going to learn about the process of recycling.

You have the process represented in images. You print out a set of the images for each pair of students, cut them up individually, and give a set to each pair. The students put the images in order and verbalise the process of recycling. In this case, you can give the students vocabulary to use to verbalise the images.

An exchange between two students might be something like this:

Student 1: In the first pictures, I see a hand taking a bottle with orange liquid and a bottle of white liquid behind it.

Student 2: In the second picture, I see a boy with a glass in his hand and another person pouring orange liquid into the glass.

Here are some questions you can give them to encourage them to think about recycling in their own lives and make inferences from the pictures.

- Should recycling be taught in school?
- What kinds of things do you think cannot be recycled?
- Do you think people should receive rewards for recycling?
- Do you think people should receive fines for not recycling?
- If you had a choice to buy a sweater made from recycled fibers or one that hasn't, which one would you choose?

Now they are ready to absorb more information about the subject because they've been given the opportunity to think about it and make connections to their own lives beforehand.

And that's it! Another simple scaffolding technique that I hope you can use in your classes. I look forward to any comments you have.

You can find me at these sites:

https://scaffoldingmagic.com/

and

Linkedin

Pinterest

<u>Facebook</u>

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So all you SUPER TEACHERS out there - I look forward to seeing you next time. See you soon! Bye!

*Willingham, Daniel T. (Summer, 2007). 'Critical Thinking: Why is it so hard to teach?'. American Educator.