

# Using research to design personalised and engaging classroom activities

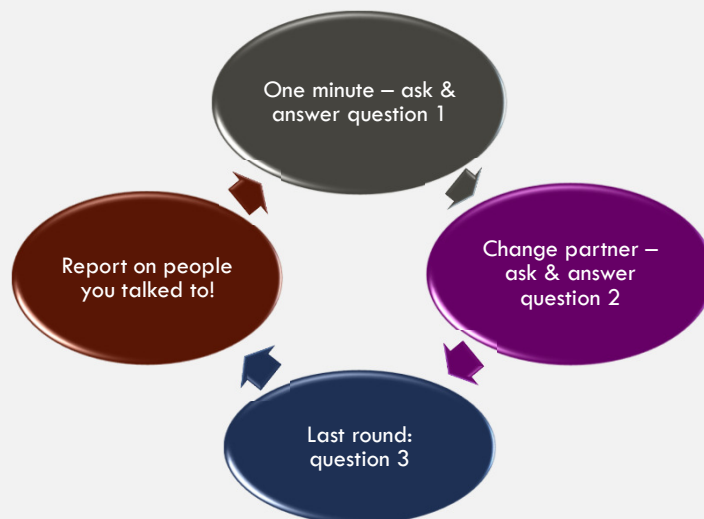
Kirsten Waechter

Nationaal Congres Engels,  
15 March 2019, Ede



This workshop is owed to Filip Dedeurwaerder-Haas workshop at the IATEFL 2017 conference in Glasgow with kind permission. It explores the question how to make practical use of neuroscience and how to involve games into a lesson structure and exploit their potential while integrating them into the overall context.

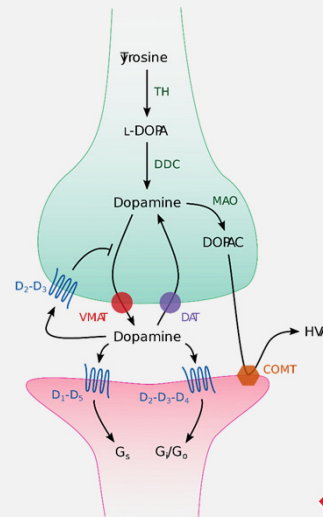
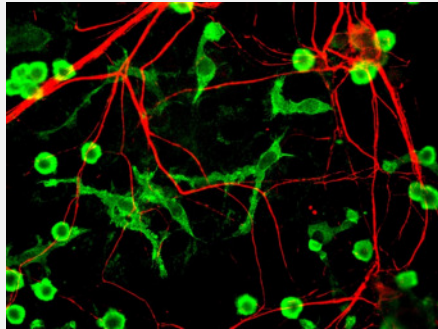
## Warm up: Speed Dating



A useful warmer is speed dating or speed conversations, whatever you want to call it: students get cards with three questions, for example, small talk or about their job; they have to interview one person about one question and vice versa; they swap partners after each round. Rounds must be timed to one minute (or maybe two). Ask how they feel: very bubbly, excited, activated. And then? Teacher ask learners to get back to their seats and all of that energy stimulation is lost. How can we stop that? We need to tie in this exercise, debriefing our students on what they have produced – use of present simple, transfer I do he or she does – that will be the focus of the lesson. And how can neuroscience help us do that? That is what we will explore!

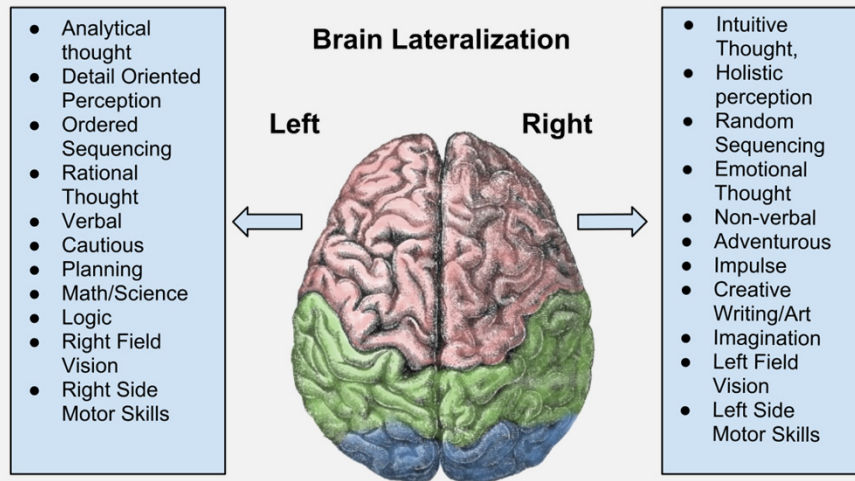
# Our brain at work

Learning: connecting brain cells to process information



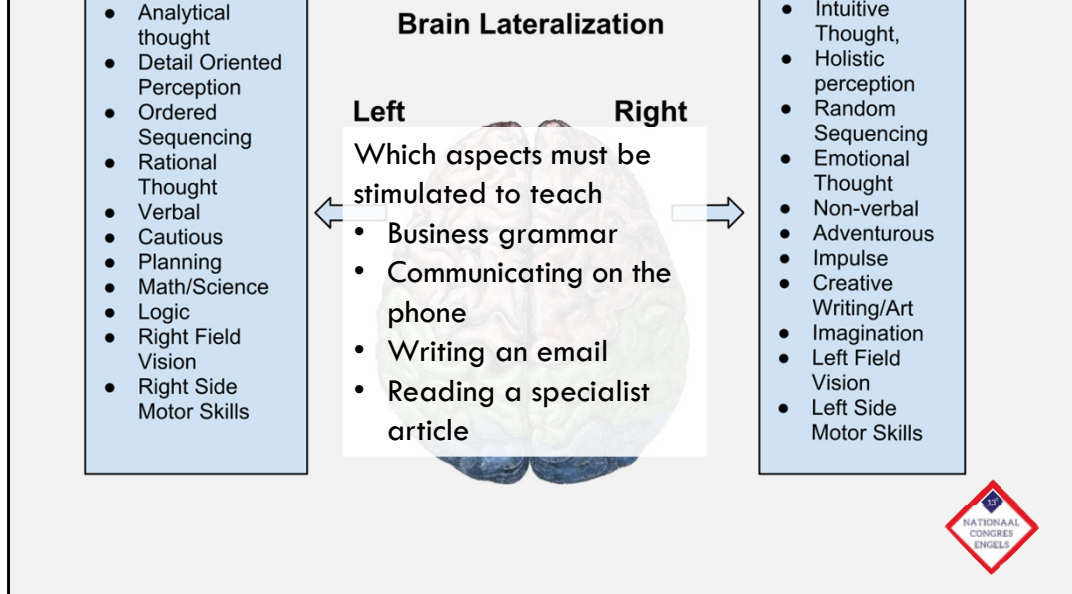
We think better on our feet, the saying goes. I am not a neuroscientist, so I am looking at this from a trainer's point of view. Everybody is talking about neuroscience, but what can we practically do with it in the classroom or other training situations? Hayek made a quite fruitful suggestion, made contemporaneously by the psychologist Donald Hebb, that whatever kind of encounter the sensory system has with the world, a corresponding event between a particular cell in the brain and some other cell carrying the information from the outside world must result in reinforcement of the connection between those cells. These days, this is known as a Hebbian synapse. Our brain connects cells and transmits information – this is how we learn and process information. This is also how we give output – that is why warmers have to be no brainers as we need to wake up our brains first and they need to make English language connections.

# Multichannel input



This shows the different regions of the brain in a lateralised brain model: an assumption that the different lobes of the brain, e.g. front left or front right, are responsible for different cognitive processes; this scheme is very simplified, but it is assumed that language functions such as grammar, vocabulary and literary meaning are lateralised to the left hemisphere whereas intonation and accentuation are often lateralised in the right hemisphere. However, this model is not as absolute and simple as it seems. That is why language learning should appeal to many functions of our brain in both hemispheres to ensure good interconnectivity and a richer and more stimulating learning experience. The three colours represent the forebrain (prosencephalon from which the cerebrum evolves), midbrain (mesencephalon) and hindbrain (rhombencephalon or cerebellum)

# Multichannel input



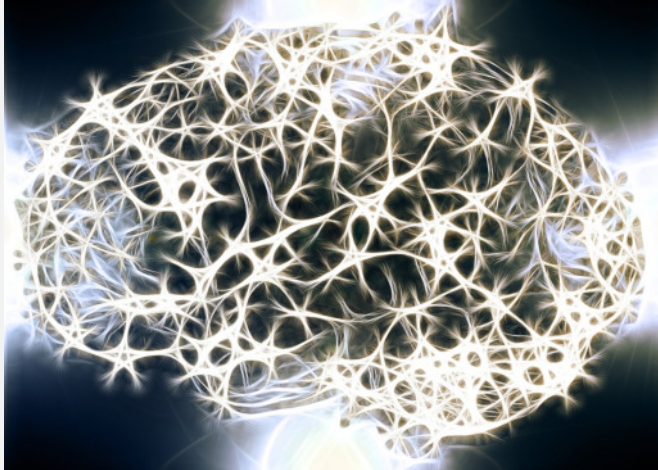
Business grammar: analytical thought to understand rules, ordered sequencing and rational thought, logic; but it boosts learning to put it into context and allows students to use their own imagination when creating sentences

Communicating on the phone: intuitive, emotional thought, random sequencing (it is hard to predict what the interlocutor will say, I need to respond emotionally), but also planning, analytical thought, and verbal expression

Writing an email: planning, ordered sequencing, detail, but again holistic view and emotional thought (impact of my email), creative writing input

Reading a specialist article: analytical thought, detailed, rational, but also holistic, most of us would respond with emotional thought (boring or interesting)

## Limbic system passport



Limbic system:  
brain firewall,  
input relevant  
or not?



This is what our brain looks like after a stimulating activity, and we want to keep our learners' brains that way. The brain decides on processing the input: it must notice the input (important for instructions) and then it must be willing to process it: relevance is at stake here. Why is this important to me? Discuss with your partner how to handle that after an activity.

## Interconnectivity

- Learner styles now passé
  - ▣ the brain's interconnectivity makes such an assumption unsound
- But different regions of the cortex have different roles in visual, auditory, and sensory processing
- Sensory system of synapses: outside information processed by other brain cells
  - ▣ Reinforcement between those cells
- Brain adapts to different ways

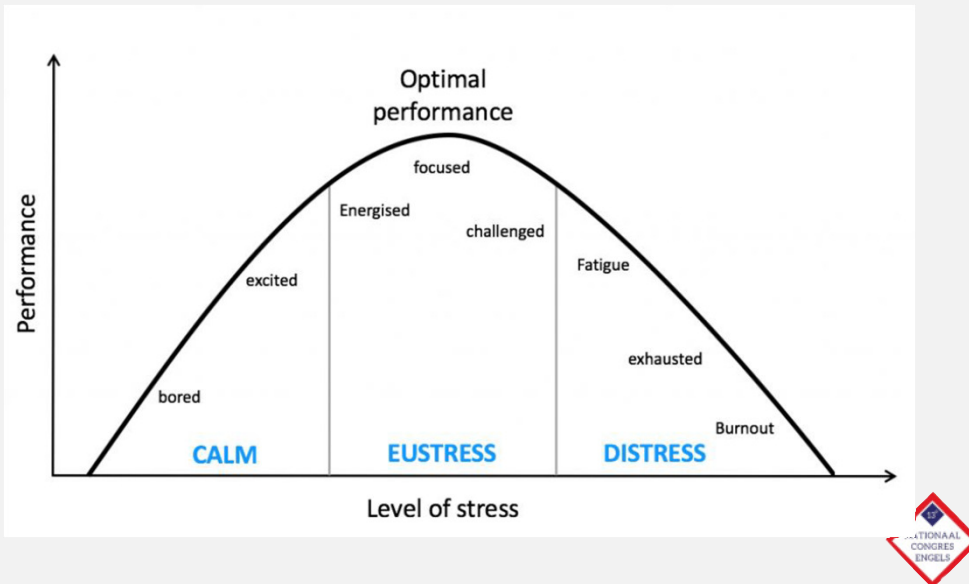


Intern

13/03/2019

Sometimes, science is not so nice, it likes to deconstruct popular beliefs and replacing it with new ones. And often, we don't understand what the scientists are trying to tell us, it feels a bit like talking to your doctor. One example is learner styles, popular with teachers and schools for ages, even I did a workshop on them at IATEFL BESIG in Dubrovnik six years ago. Neuromyth of learner styles as suggested by Paul Howard-Jones, popular belief, but hardly evidenced by research. Of course, as Nietzsche already had it, every scientific axiom must be taken with a grain of salt. Now let us have a look where neuroscience is useful for language teachers.

## Activity curve: when to do what?



Throw a ball, ask people to throw it on. This slide is taken from sports looking into the response when an athlete catches a ball. How can we make use of this curve of optimal performance? At which stage should you do what? Small group activity. Use the willingness of the brain to accept new information in its active state. Remember not to overdo it – no sugar rush for students, the need calm and heads down experience as well.



# Warmer exercises

I HEAR	I SAY	I HEAR	I SAY	I HEAR	I SAY
(Start)	€23.45	€15.87	€21.49	€23.45	€15.87
€34.11	€99.75	€88.33	€19.78	€21.49	€34.11
€19.78	€100.99	€100.99	€67.48	€99.75	€88.33
€67.48	€64.87	€64.87	€230.89	€230.89	€1,000.00
€467.15	€333.28	€1,000.00	€467.15	€333.28	€645.26
€645.26	€876.67	€876.67	€444.66	€444.66	€1,340.50
€8,765.43	€4,321.98	€1,340.50	€8,765.43	€4,231.98	(End)

How to build them in?



Students work in groups of three. Teacher distributes 3 slips of paper per group (see below). The student with the slip that does not have an entry under “I hear” in the first line starts and reads out loud the first entry under “I say”. The student who has this entry under “I hear” continues by reading out loud his next entry (always from top to bottom, not letting out an entry) and so on. This game is self-correcting as it will block up if an input is incorrect – students will most likely help each other. The table below shows how to construct this game. You can fill it with numbers (e.g. €13.56), time data (e.g. 11.05), verb forms (e.g. column “I hear”: infinitives, column “I say”: past participles).

## Reflect on exercise

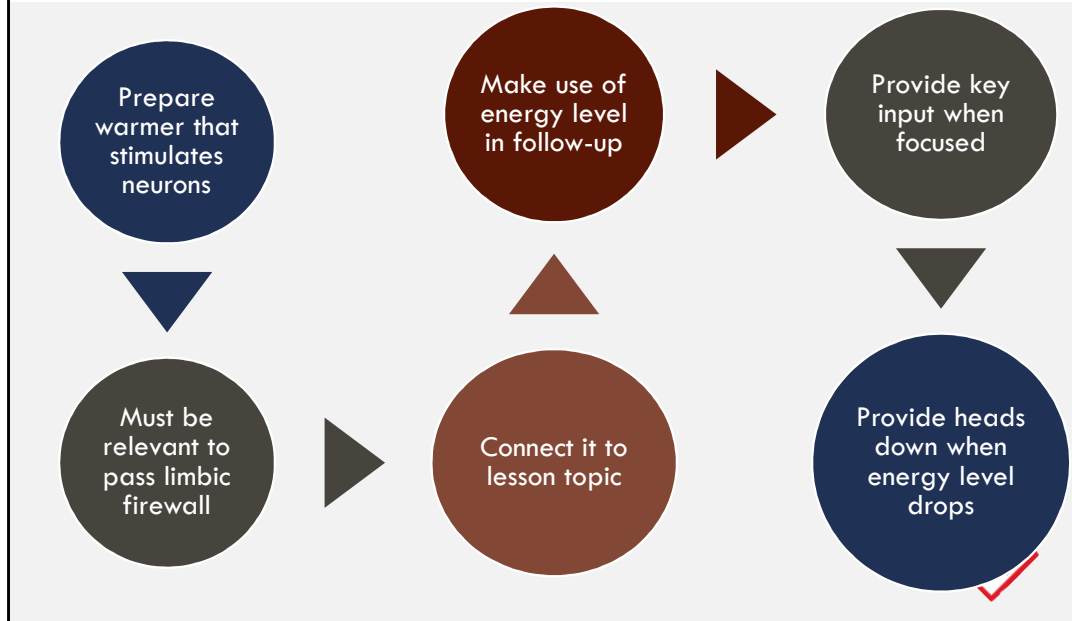
I HEAR	I SAY	I HEAR	I SAY	I HEAR	I SAY
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€8,765.43	€4,321.98	€1,340.50	€8,765.43		

### When to use what?



What does the warmer actually do? How does it stimulate our brain and which parts? How can we build on a warmer and seize that energy level? Students are excited and energised, which is followed by focused: that is the point to explain key objective and have them give input on that. Then they need time to process to avoid fatigue and burnout.

## How to use stress level



## Reading the colours

- ☐ Which elements are activated here?



**Reading colours** Teacher hangs up slips of paper with the names of colours each printed in a different colour. All colours should be on the slip of paper as colour and as a word. Students work in pairs. One student reads the colour out loud (not the actual word), the other student corrects if necessary.

# Treasure hunt

A person who has at least three brothers or sisters. ¶ Name: _____	A person who owns a car. ¶ Name: _____	A person who can't cook. ¶ Name: _____	A person who can knit. ¶ Name: _____
A person who is younger than you. ¶ Name: _____	A person who has been married twice. ¶ Name: _____	A person who speaks more than two languages. ¶ Name: _____	A person who loves dancing. ¶ Name: _____
A person who likes cycling. ¶ Name: _____	A person who likes cooking. ¶ Name: _____	A person who has already been in Italy. ¶ Name: _____	A person who loves painting. ¶ Name: _____
A person who likes cats more than dogs. ¶ Name: _____	A person who likes dogs more than cats. ¶ Name: _____	A person who has at least four grandchildren. ¶ Name: _____	A person who loves reading. ¶ Name: _____



People must move around and talk to people to find four persons, one for each quality. The first to complete a row or column is the winner.

# How to teach the future tenses?

Combine:

- analytical and emotional
- order and random
- verbal and non-verbal
- logic and intuition
- detail and holistic
- science and creativity



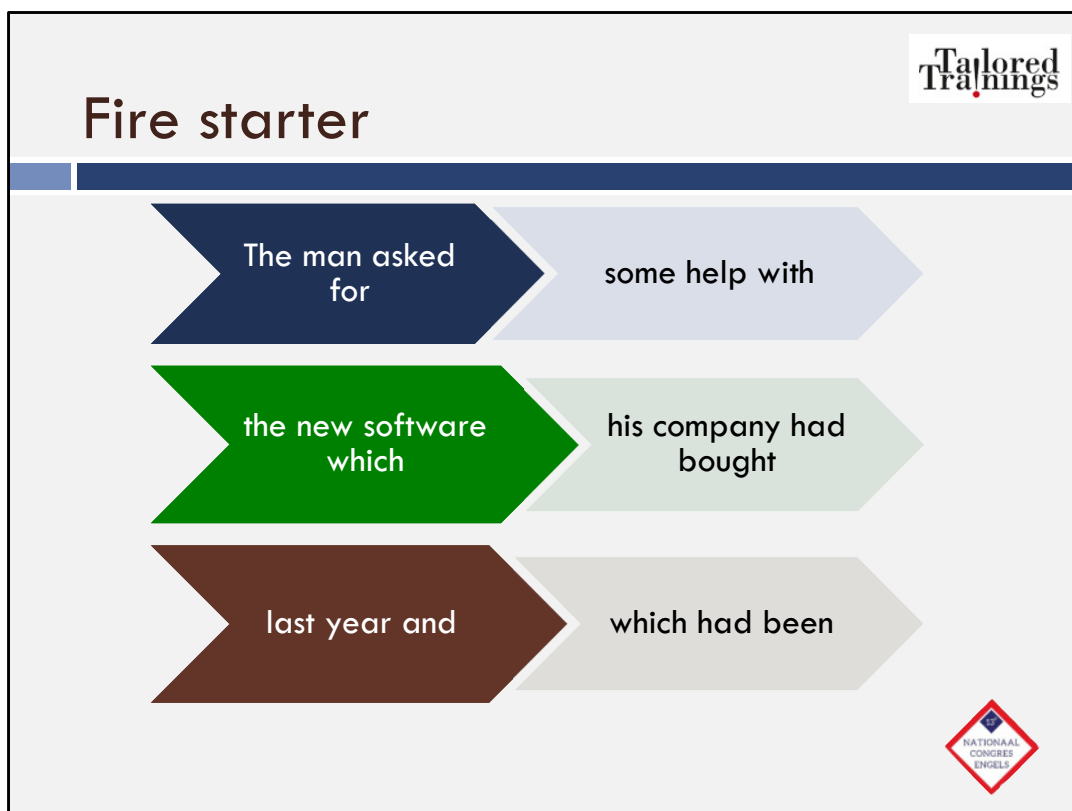
Getting back to learner styles: maybe they are a myth, but people do process information in different ways; we know that pictures and music or sound are processed differently from text, reach different layers of brain/memory, but I cannot teach an email as a piece of music. So what to do? Task: think about teaching the future tenses. Look at the picture and the instructions.

## Providing strategies: Bingo

Do you think you could ...?	I don't suppose ...?	Could you give me ...?
Do you happen ...?	Would it help ...?	Is there anything else ...?
Is there any chance ...?	I wonder if you could ...?	Are you absolutely ...?
Would you mind ...?	Would it help if ...?	Is there any point ...?



This is complaints bingo, it can also be any other topic. Students need to mark the phrases they hear in a conversation between other students, on their sheet, once they have found four phrases, they are allowed to take over the speaker role. This is freely downloadable from Macmillan: <http://www.businessenglishonline.net/wp-content/uploads/2010/10/IC008WSU-problems.pdf>

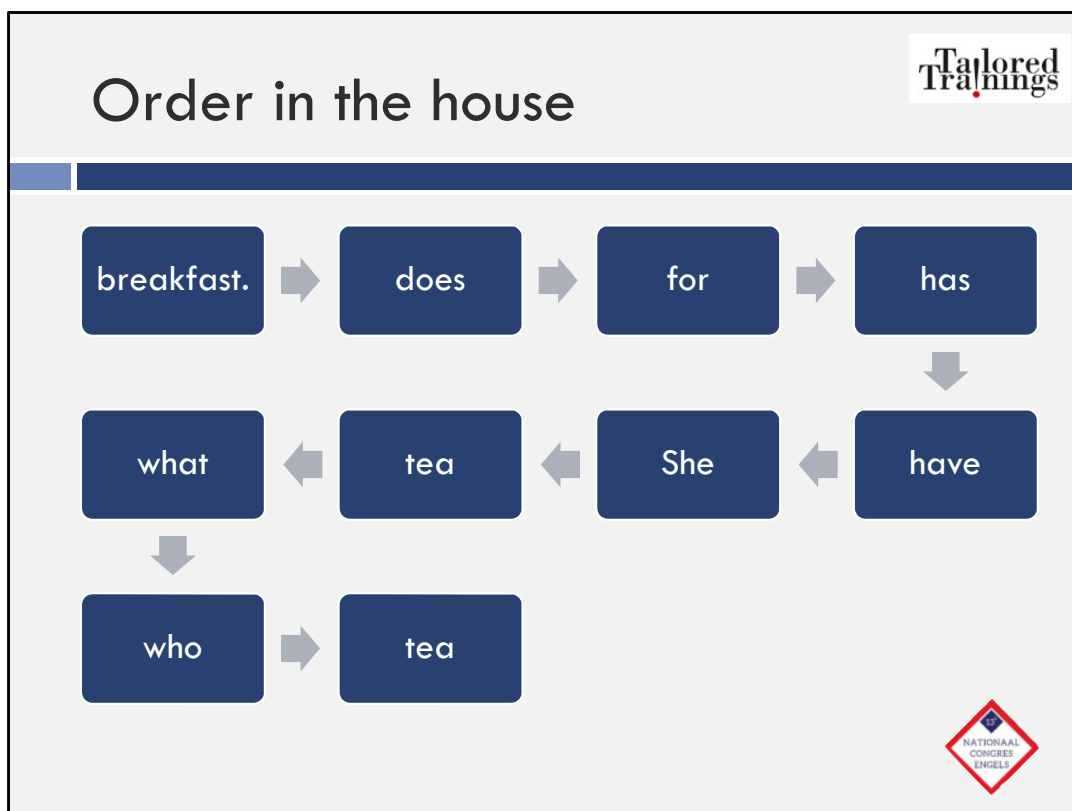


Start with sentence building exercise: debriefing – how do you focus your learners now? For example, types of words and functions –ing forms, word order, caps, full stop. How does that stimulate the brain? How to connect? After the heads up/down curve, you can build in the next exercise like fire starter.

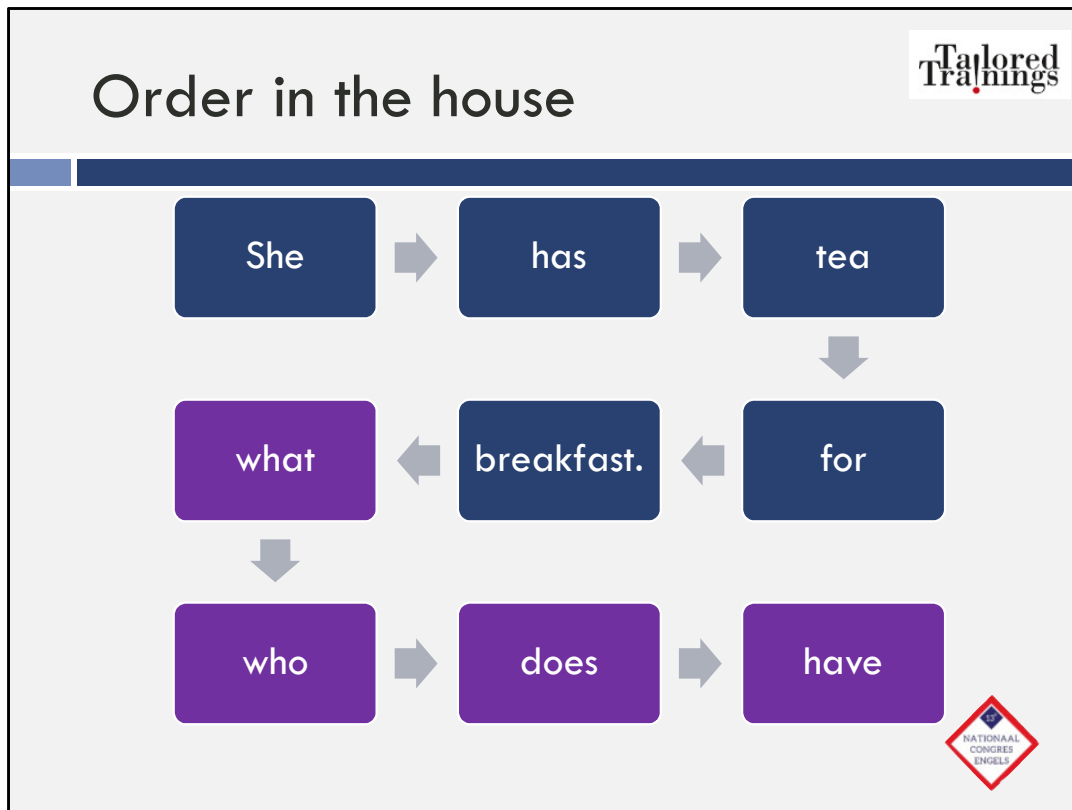
The teacher starts one sentence or gives one student a card with half a sentence. The student reads it out and passes the sentence on to another student to finish the sentence and start a new one (always one word has to be added minimum). If students are A1, this can be practised with phrase dominoes first (which phrases go together), or question starters can be used – then one student completes the question, the next student answers and continues with their question.

However, this format is more interactive and fun. Providing a topic is a good idea.





**Order in the house (get the correct sequence)** Teacher writes down words of a sentence separately on slips of paper and then distributes them in random order. Some student receive slips with extra words that do not fit in (immediately). Students have to stand up and get the sentence in the correct order (if necessary appoint one student as director). Then extend the phrase (e.g. by an adverbial, question word...). After that, discuss syntax rules that have become apparent during the exercise.



## Order in the house (get the correct sequence)

This is a simple sentence, distractors must be plausible (does have could be used, what does she have is possible). The capital letter and the punctuation indicate the word order.

## Help your students to fly high

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QR code for materials



Tibidabo, Barcelona



Please get in touch if you need more information or if you have tried out the exercises. I would love to hear your experience. Simply write to the e-mail address above. You can also find me on LinkedIn or Xing.