

# First Year Experience

## Learning Preferences Jigsaw Assignment

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*This assignment was inspired by the Jigsaw Method, a cooperative teaching approach designed by social psychologist Elliot*

The Jigsaw Configuration and Method: The Jigsaw Model is a social model of learning that requires students to be assigned to both expert (teaching) groups and instructional (learning) groups.

Subject areas, or specified content information, are divided so that instructional collaborative groups can be formed.

In this example, there are three articles that students should learn and discuss. The example includes a sample class of 15 students.

The class is divided into two assigned sections, *expert* groups and *instructional* groups. In the expert groups students work as a team to read, discuss, and develop assigned materials or concepts into a teaching presentation for peers. After the preparation period, students from each expert group find other partners from the two different expert groups other members rotate to one of the other two group areas. The new groups are the “instructional” groups. In these instructional groups each expert take turns teaching their portion of the information to the other members.

Best Practice: Expert groupings should be based on the number of students divided by number of concepts to be taught. If you have three articles and 15 students, have five expert groups. This peer teaching exercise needs to occur within a designated time period. Expert groups (the teachers) usually consist of 3-7 members. Configurations for instructional groups are usually 3-6 members with 4 or 5 participants being ideal.

If there are an uneven number of students, student experts can be paired and assigned to the same instructional group, thus sharing the teaching tasks (see. Try to keep in mind that groupings for the instructional group should not exceed 6 members.

## Specific Procedures:

For this lesson, each *expert* group is assigned an excerpt from an article to read. Specifically, students are to read the information, create a summary as a team and create 3 discussion questions related to the article. After 10-15 minutes, have students form the new “instructional groups.” Below is an example of groupings with 15 students in a classroom.

Start of class:		After preparation:	
6 EXPERT GROUPS		5 INSTRUCTIONAL GROUPS	
People	Article to Learn	People	Article to Teach
Person A	Article 1	Person A	Article 1
Person B		Person D	Article 2
Person C		Person G	Article 3
Person D	Article 2	Person B	Article 1
Person E		Person E	Article 2
Person F		Person H	Article 3
Person G	Article 3	Person C	Article 1
Person H		Person F	Article 2
Person I		Person I	Article 3
Person J	Article 1	Person J	Article 1
Person K		Person L	Article 2
Person L		Person N	Article 3
Person M	Article 2	Person K	Article 1
Person N		Person M	Article 2
Person O		Person O	Article 3
Person N	Article 3		
Person O			

In turns, students will present their information to the others and ask the discussion questions.

Finally, students will also be asked to reflect on the articles and what they learned as a class. The instructor may need to call on students at this point in sharing. Finally ask for students to reflect on the jigsaw process. What did you like about this activity? What did you dislike about this activity?

# ARTICLE 1: Understanding VARK

from <https://teach.com/what/teachers-know/learning-styles/>

One of the most accepted understandings of learning styles is that student learning styles fall into three “categories:” Visual Learners, Auditory Learners and Kinesthetic Learners. These learning styles are found within educational theorist Neil Fleming’s VARK model of Student Learning. VARK is an acronym that refers to the four types of learning styles: Visual, Auditory, Reading/Writing Preference, and Kinesthetic. (The VARK model is also referred to as the VAK model, eliminating Reading/Writing as a category of preferential learning.) The VARK model acknowledges that students have different approaches to how they process information, referred to as “preferred learning modes.” The main ideas of VARK are outlined in Learning Styles Again: VARKing up the right tree! (Fleming & Baume, 2006)

- Students’ preferred learning modes have significant influence on their behavior and learning
- Students’ preferred learning modes should be matched with appropriate learning strategies.
- Information that is accessed through students’ use of their modality preferences shows an increase in their levels of comprehension, motivation, and metacognition.

Identifying your students as visual, auditory, reading/writing or kinesthetic learners, and aligning your overall curriculum with these learning styles, will prove to be beneficial for your entire classroom. Allowing students to access information in terms they are comfortable with will increase their academic confidence.

## Visual

- Visual learners prefer the use of images, maps, and graphic organizers to access and understand new information.

## Auditory

- Auditory learners best understand new content through listening and speaking in situations such as lectures and group discussions. Aural learners use repetition as a study technique and benefit from the use of mnemonic devices.

## Read & Write

- Students with a strong reading/writing preference learn best through words. These students may present themselves as copious note takers or avid readers, and are able to translate abstract concepts into words and essays.

## Kinesthetic

- Students who are kinesthetic learners best understand information through tactile representations of information. These students are hands-on learners and learn best through figuring things out by hand (i.e. understanding how a clock works by putting one together.)

## ARTICLE 2: Are ‘Learning Styles’ Real?

Khazan, Olga. “The Myth of ‘Learning Styles’.” *The Atlantic*, Atlantic Media Company, 12 Apr. 2018, [www.theatlantic.com/science/archive/2018/04/the-myth-of-learning-styles/557687](http://www.theatlantic.com/science/archive/2018/04/the-myth-of-learning-styles/557687)

In 2015 A *Journal of Educational Psychology* paper found no relationship between the study subjects’ learning-style preference (visual or auditory) and their performance on reading- or listening-comprehension tests. Instead, the visual learners performed best on all kinds of tests. Therefore, the authors concluded, teachers should stop trying to gear some lessons toward “auditory learners.” “Educators may actually be doing a disservice to auditory learners by continually accommodating their auditory learning style,” they wrote, “rather than focusing on strengthening their visual word skills.”

In our conversation, Willingham brought up another study, published in 2009, in which people who said they liked to think visually or verbally really did try to think that way: Self-proclaimed visualizers tried to create an image, and self-proclaimed verbalizers tried to form words. But, there was a rub, he said: “If you’re a visualizer and I give you pictures, you don’t remember pictures any better than anyone who says they’re verbalizer.”

This doesn’t mean everyone is equally good at every skill, of course. Really, Willingham says, people have different *abilities*, not styles. Some people read better than others; some people hear worse than others. But most of the tasks we encounter are only really suited to one type of learning. You can’t visualize a perfect French accent, for example.

The VARK questionnaire itself illustrates this problem pretty well. One question, for example, asks:

You are planning a vacation for a group. You want some feedback from them about the plan. You would:

- describe some of the highlights they will experience.
- use a map to show them the places.
- give them a copy of the printed itinerary.
- phone, text, or email them.

But of course, any friend-having human in 2018 would email their friends to coordinate group travel, whether or not that email includes the first three elements. (Another question asks, sweetly, “You are helping someone who wants to go to the airport” and suggests different ways of giving directions, along with the option to simply “go with her.” It depends on the “her” in question, one would assume!)

The “learning styles” idea has snowballed—as late as 2014, more than 90 percent of teachers in various countries believed it. The concept is intuitively appealing, promising to reveal secret brain processes with just a few questions. Strangely, most research on learning styles starts out with a positive portrayal of the theory—before showing it doesn’t work.

Willingham goes so far as to say people should stop thinking of themselves as visual, verbal, or some other kind of learner. “It’s not like anything terrible is going to happen to you [if you do buy into learning styles],” he says, but there’s not any benefit to it, either. “Everyone is able to think in words, everyone is able to think in mental images. It’s much better to think of everyone having a toolbox of ways to think, and think to yourself, which tool is best?”

## ARTICLE 3: ‘Neuromyth’ or Helpful Model?

Toppo, Greg. ‘Neuromyth’ or Helpful Model? *Inside Higher Ed*, 9 Jan. 2019,

[www.insidehighered.com/news/2019/01/09/learning-styles-debate-its-instructors-vs-psychologists](http://www.insidehighered.com/news/2019/01/09/learning-styles-debate-its-instructors-vs-psychologists)

A couple of years ago, the science writer Ulrich Boser wondered: Do educators still believe in learning styles?

The idea that some students are auditory learners, while others flourish by having information presented visually, through motion or otherwise is nearly a century old. It grew in popularity in the 1950s, then again in the 1970s, but for much of the past decade scientists have warned that it has little merit.

Boser, founder of the Learning Agency, a Washington consulting and communications group, had long followed the field. He was researching a book about learning strategies and knew that scientists had debunked learning styles, most notably in a widely discussed 2009 paper -- in it, they said building instruction around the concept was an “unwise and a wasteful use of limited resources.”

So he set up a Google alert for the term. He found that, far from being dead, learning styles were perhaps as popular as ever. “It is incredible how much it pops up,” he said recently.

Educators continue to invoke the idea, he said. Last October, as she embarked on a four-state “Rethink School” tour, U.S. education secretary Betsy DeVos said she planned to visit schools that are “working to ensure all children can have access to the education that fits their learning style.” During her 2017 confirmation hearing, DeVos thanked Senator Pat Roberts, a Kansas Republican, for displaying a chart in the hearing room that she could refer to during testimony, calling herself “a visual learner” -- despite the fact that the U.S. Department of Education has discouraged the idea. It even funded a teachers' guide that warns, “Education research debunks the myth that teaching students in their preferred styles (e.g. ‘visual learners,’ ‘auditory learners’) is an effective classroom practice.”

But interviews suggest that the two sides these days may be closer than they seem: even learning-styles devotees, who view the “debunkers” with suspicion, are beginning to consider teaching strategies that learning-styles critics would support.

Scott Barry Kaufman, a psychologist at Barnard College who wrote about the topic last month for *Scientific American*, calls learning styles an example of a “neuromythology” -- a popular idea that endures despite little evidence supporting it. This particular myth, he said, “is paved with good intentions, but that still doesn't mean it can't be harmful to students.”

Kaufman wrote that, paradoxically, catering to learning styles in the classroom “can actually foster a fixed mind-set, not a growth mind-set. This should create quite the cognitive dissonance for teachers who generally love both growth mind-set theory and learning styles.”

Even the mock-newspaper humor site *The Onion* has lampooned learning styles, publishing a satirical article in 2000 with the headline, “Parents Of Nasal Learners Demand Odor-Based Curriculum.” Accompanying the piece was a photo of a forlorn girl, identified as a “nasal” learner, struggling to understand an “odorless” textbook.