TEACHING WITH INFOGRAPHICS

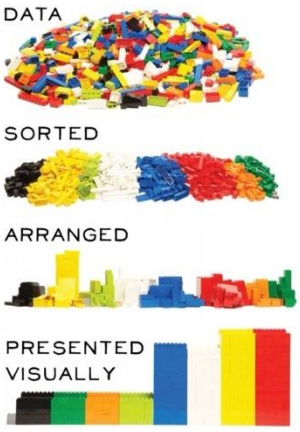
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In the last few years a new type of graphic visual representation of information is reflecting the rhythm of our busy life it is called: the Infographic. The infographics are entering in the education space in new and captivating manners. Teachers can find infographics useful classroom tools in a number of ways. Most prominently, a good graphic makes information easily accessible, as it feeds into many students' natural tendency to learn by seeing and interacting. The goal of the system is to help students distill the most important pieces of information from any given text and form a conclusion.

A good graphic can fit these standards by reinforcing to students that their conclusions should be grounded in evidence and by challenging their ability to organize a hierarchy of systems, the ability to tell what pieces of information are the most important. When students create infographics, they are using information, visual, and technology literacies. These infographics open the door to a much more exciting possibility for their use in the classroom: student themselves can create infographics as a way to understand complex course topics.

Key-words: infographic; new tool; meaningful; challenge; useful

Over the past few years, a new kind of graphic visual representation of information has been gaining popularity it is called: the infographic. You have probably heard the phrase ,, A picture is worth a thousand words'', a manifesto that speaks to the value and efficiency of visual communication. An infographic (short for information graphic) is a type of picture that blends data with design, helping individuals concisely communicate messages to their audiences.



Why infographics?

- ✓ To communicate a message;
- ✓ Present large amounts of data meaningfully;
- ✓ Reveal hidden data for the viewer;
- ✓ Reveal the data at several levels of detail, from a broad overview to the fine structure;
- ✓ To analyze data in order to discover cause-and-effect relationship;

Firstly, we need to distinguish between mind maps and infographics. Mind maps are the ,, octopuses'' where you connect the ideas logically, infographics on the other hand contain information in a way that looks nice. Mind maps are great for organizing your thoughts. If you give your map to someone else, they will probably have a hard time trying to understand it. However, if you create your own map, it will help you learn what you need. As long as you are

aware of this, mind maps are ideal as worksheets for your students who then organize their thoughts into them.

Infographics on the other hand display information in a visually appealing way. By creating these we do not come up with any original concepts, we put the old information into a new one, more attractive package.

The history of data and information visualization is both rich and fascinating. They have been used throughout the history. The first known infographic appeared in the form of illustrations demonstrating the Sun's rotation patterns in 1626. There are many fields where infographics are widely used: many businesses use infographics as a tool for communicating with and attracting potential customers.[1] The field of journalism has also incorporated and applied information graphics to new stories. Many news based websites have also used interactive information graphics in which the user can extract information on a subject as they can explore the graphic. Religious denominations have also started using infographics. For example – The Church of Jesus Christ of Latter day Saints has made numerous infographics to help people learn about their faith, missionaries, temples lay ministry, and family history efforts.[2]

Infographics are finding a home in the classroom as well, they are entering in the education space in new captivating manners. It can be also easily find educational infographics on just about every subject, from history, math, and science, to art, literature and world languages. Teachers can find infographics useful classroom tools in a number of ways. Most prominently, a good graphic makes information easily accessible, as it feeds into many students' natural tendency to learn by seeing and interacting.

The goal of the system is to help students distill the most important pieces of information from any given text and form a conclusion. The students can understand complex topics quickly and efficiently by using infographics. Courses that teach students to create their own infographics using a variety of tools may encourage engagement in the classroom and may lead to a better understanding of the concepts they are mapping onto the graphics.[3]

There are many opportunities for incorporating educational infographics into school, university; whether by using existing or teacher-created visuals, or as a form of assessment by having students create their own.

For being effective, interesting, up-to-date in an English lesson- an interesting infographic can be a good discussion starter.

- ✓ Have students answer questions about the infographic or make predictions. You can use one in much the same way you would a news article or other source.
- ✓ Show students a fun infographic to introduce a new topic, or to give a broad overview of a new subject.
- ✓ Use an infographic to research a topic. Good infographics often include sources at the bottom; use one as a starting point for more in-depth research.
- ✓ Practice reading charts and interpreting statistics using an infographic.

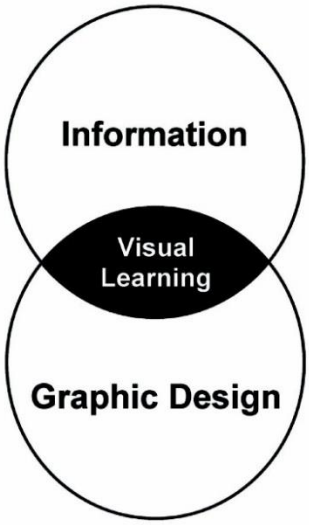
There are a number of simple online tools for visualizing data that can make it easy for students to create their own infographics.

- ✓ Make a timeline of historic events;
- ✓ Create a step-by-step guide explaining how to do something- how to conduct a science experiment, how to write a book report, etc.;
- ✓ Have students research and create an infographic explaining an event, invention, or famous person;
- ✓ Have students create an infographic about a country using current and historical statistics like population, resources, and growth rates;
- ✓ Create a chart that examines a trend or change over time;
- ✓ Teach students about creative commons;
- ✓ Have students gather and create assets;
- ✓ Teach students about the use of the color;
- ✓ Teach students about the use of fonts;

✓ Teach students about layouts;
✓ Teach students an organizational model.

Translating these assignments into an infographic can make the experience more relevant, and allow students to explore modern tools and design skills. Students can even share their learning online on one of the many infographic databases, giving their work an authentic audience.

Infographics are composed of three important elements: the visual (color coding, graphics, reference icons), the content (time frames, statistics, references), and the knowledge (facts) .[4]



The visual consists of colors and graphics. Humans receive significantly more information from vision. Statistics and facts usually serve as the content for infographics, and can be obtained from any number of sources. One of the most important aspects of infographics is that they contain some sort of insight into data that they are presenting- this is knowledge.

Infographics can be created by hand using simple everyday tools such as graph paper, pencils, markers, and rulers. However, today they are more often created using computer software, which is often both faster and easier. They can be created with general illustration software or specialized websites and tools. Below you can find the information that is needed for making and finding interesting infographics. .[3]

✓ **Easel.ly**– Browse visuals and create your own. There are several different customizable themes to get you started;
✓ **PiktoChart–** A simple to use infographic maker with a few themes available for free;
✓ **Many Eyes–** Upload your own data, or use statistical data provided to create online visuals;
✓ **Hohli–** An easy to use online chart builder for bar graphs, pie charts, and more;
✓ **Wordle–** A simple tool for making word clouds. Word clouds are helpful for showing the main idea of a piece of writing;
✓ **Visual.ly**– A great source for sharing and finding infographics, with a growing number of tools for creating them;
✓ **GOOD Infographics**– A nice collection of infographics from GOOD Magazine;
✓ **Cool Infographics–** Just what the name says! This is a blog featuring many infographics on a range of topics;
✓ **Visualizing.org–** A community for sharing visualizations of data on many topics;
✓ **Gapminder–** Many statistics from around the world, broken down by country, as well as ideas and resources for teachers;
✓ **Google Public Data–** Explore and compare public data using Google's easy visualization tools;
✓ **Pinterest–** Pinterest is a great tool for sharing visuals and you can find many infographics on the site; [3].

There are also the basic provisions of communication that need to be assessed when designing an infographic- appeal, comprehension, and retention [5]. Appeal is the idea that communication

needs to engage its audience. Comprehension implies that the viewer should be able to easily understand the information that is presented to them. And finally, retention means that viewer should remember the data presented by the infographic. If the infographic is meant to convey information in an unbiased way, such as in the domains of academia or science, comprehension should be considered first, then retention, and finally appeal.

Infographics come in all shapes and sizes but they can roughly be categorized into eight distinct types:



The Timeline- Made up of chronological dates that are visualized to make the graphic interesting and shareable; Can be simple or complex.

Versus Infographic- Compare the two things and place them in a head- to – head comparison so we can visually see their differences; Works well with a lot of data

Useful bait- Is a great way to explain something or answer a question by visually showing how to do it; Usability over design.

Photo Infographic- Use photo to visualize the content to tell the story; Can answer a question or guide the reader; Design is usually simple.

Number porn- Works well with lots of content; Made up of charts and numbers.

Data Vis- Turn info into something visually creative and appealing, making them unique and interesting; A focus on design.

Flow chart- Answer a specific question by giving choices to the reader so they reach the right answer for them; Design can be simple.

Visualised article- Needs a strong title; Works well with lots of content; it makes easier to understand.

The infographics surround us: we see them on TV, in books, in newspaper, in manuals. The internet is flooded with infographics related to a range of fields- from science and technology to society and culture. They have evolved in recent years to be for mass communication, this modern prerogative of data representation is to portray the information in a neat and organized way. With the correct use of infographics, there is a lesser chance of misrepresenting facts and figures. Last but not least, infographics can provide a motivating way to set homework. Student can see the grammar explanation and then play a related game to test their understanding of the grammar; create a step-by-step guide explaining how to do something; how to conduct a science experiment; how to write a book report.

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