EdComix

Comics creation resources for language education

Pedagogical Guide

Using Comics for Inclusive English Education

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INTRODUCTION

This publication has been created in the framework of the EdComix Erasmus+ project, with the support of European Commission.

The objective of this project is to introduce a new methodology to make the most out of comics in education for language learning, as we believe them to be an important, underrated, and innovative resource. Therefore, in the following pages of this guide, we will establish the pedagogical value of using comics in education and in particular to teach English in an inclusive way.

To do so, in chapter 1 we define first what is a comic, by looking at the history of comic books and graphic novels and analysing the different types of comics that exist. In addition, we will explore the theory related to using comics as a tool for learning and inside the classroom, with a focus on language classrooms

Then, chapter 2 focuses on the practical uses of comics in the classroom, with examples and suggestions on activities teachers can use and adapt to their needs.

Finally, we have devoted the last part of this guide to a topic which has rarely been dealt with: the inclusive use of educational comics. Hence, in chapter 3 we deal with how comics can support inclusive and participative teaching practices in language learning, for learners with Specific Learning Disorders, but also with regards to diverse cultural backgrounds.

CHAPTER 1

THE PEDAGOGICAL POTENTIAL OF COMICS: THE THEORY

1.1 What is a comic?

Picturing, sketching, drawing are means of expression as old as humankind. Humans were painting in caves long before being able to write. Regardless of the meaning of these cave painting - which still remains enigmatic and can be either for religion or wish to assert dominance, etc - they clearly are a way of communication("Art préhistorique", 2020).Another example is the hieroglyphs which are considered as one of the oldest writing systems, together with cuneiform ("Writing system", 2020). The latter went through important graphic evolution during its history. However, both early cuneiform and hieroglyphs share one feature: they were pictographic. They were using drawings, or so-called pictograms, instead of our modern alphabets or logographic systems (i.e. Chinese characters).

History shows more of this kind of early examples of sequential pictures – which in modern times would be called as "comics".

For instance:

- Rome's Trajan's column, portraying Trajan's military victories against the Dacians, dating back to the second century.
- Stained-glass windows in catholic churches.
- Tapestries, with the famous example of Bayeux Tapestry in France, depicting the events leading to the Norman conquest of England in the 11th century.

Some researchers consider the above-mentioned Bayeux Tapestry as the first comic, because it is using a succession of panels and captions in Latin to tell a story, as contemporary comics do (Peccatte, 2016).Its inclusion in comics' history dates back to 1967, by George Perry et Alan Aldridge in their "Penguin Book of Comics".

Coming to today, comic's definition in their modern understanding might often cause discrepancies: For some, comics are a certain type of 'sequential art', usually taking the shape of a short album, while for others, comics are an umbrella category, regrouping several forms of 'sequential art' (Yildirim, 2013). In addition to that, comics suffered a bad reputation in their history, and therefore, a new term recently arose, which refers toa 'graphic novel'. Again, opinion and definitions diverge as some consider this new name as an attempt to erase comics' bad reputation, while others view graphic novels as a different category.

For this guide and in the context of EdComix Eramus+ project, we will consider the following definition of comics, as stated by Scott McCould (1993): comics are **"juxtaposed pictorial and other images in deliberate sequence, intended to convey information and/or to produce an aesthetic response in the reader"**. This definition is inclusive of all the types and genres of 'sequential art, for instance hieroglyphs (Källvant, 2015). However, the current definition has the advantage not to exclude some types of comics that could be useful in the educative context. Therefore, for the following pages, we will consider comics as an umbrella term.

Now, let us dive in and give a bit more of technical terms and see the several forms that comics can take:

- A comic strip, usually seen in newspapers. It is short, straightforward, and usually has one purpose: to be humoristic (Yildirim, 2013).
- Comic books. Lengthier than a comic strip, comic book usually tells part of a story, which is divided into several albums.
- Graphic novels. They are lengthier than comic books and the entire story is contained within one publication (Ásbjörnsson, 2018).
- Manga (which can be roughly translated as "whimsical pictures"). This type of comic corresponds to a style of Japanese comic book, read from right to left, and were developed in the late 19th century (Asher and Sola, 2011).

- A webcomic (further explored in chapter 3 of the Guide). They take advantage of the opportunities offered by digital media and can even be dynamic.

This list can be easily extended: an article found on Louisville Public Library's website individualize more than 50 types of comics[1]. However, the above five highlighted types are the most recurrent. Concerning genres, comics could be said to follow the genres of regular literature. One can find science fiction, adventure, or horror comic books. Educational comics could be added as a genre, but these usually rely on a story belonging to another genre.

Within this framework, our guide will act as a summary of previous research on educational comics. In the following pages of this chapter, we will come back to comics' history – generally and as a learning tool – and to comics' educational benefits, while moving on to their different uses in the classroom. We will particularly focus on language classrooms, as project EdComix focuses on using comics for English language education.

Let us start by briefly present how comics have been evolved through the years until today.

1.2 History and the origins of comics

Golden Years 1930s-1940s: The early rise of comics around the world

Comics as we consider them today, were born in the 1930s. However, comics strips and humorous drawings were already appearing in newspapers before this decade. The first recorded comic book was printed in 1933 (Yildirim, 2013). The Golden Age started with the publication of Action Comics' "Superman" in 1938. In 1944, Sones

[1]See the following website for more information http://blogs.lfpl.org/readers/comics-and-manga/types-of-comics/

highlighted the first statistics: in the US, 95% of the 8-14 years old children read comics magazines, and 65% of 15-18 years old.

Most of the serialised American comics published in the 1940s followed the same storyline, portraying superheroes, always ready to fight villains whose sole purpose was to destroy the world. This narrative was highly linked with the reality of the situation at that time, which is a trend that continued throughout the next decade. Following the end of the Second World War and soldiers' return to their home countries, the classic depiction of "an invincible, caped avenger casually overcoming the world's great evils", lost in popularity (Johnson, 2017).

Meanwhile, in other parts of the world: France, Belgium and Japan were the three other active hubs in comics creation in the 1930s and 1940s. Belgian artist's Hergé published the first European album in 1930: "Tintin in the Land of the Soviets", which soon became a series named "The Aventures of Tintin". A similar trend occurred in Japan, with the popularization of manga.

In Europe, several serialised series had an educational background. "Becassine" is a good example. Initially published in 1905 in the weekly magazine "Le Journal de Suzette", the character was originally created to educate young girls of upper and middle classes to good manners. However, its success changed the character who quickly became an intrepid adventurer, moving away from tasks traditionally reserved for women (LipaniVaissade, 2009).

Teachers back then did not fail to notice the increasing popularity of this new art among young generations. They included it in the teaching curriculum as an educative tool quite rapidly. Studies on the topic such as the one of W. W. D. Sones in 1944 – "The Comics and Instructional Method" – multiplied in the USA. However, their educative role ended abruptly.

The plunge in comics' popularity in the 1950s

In 1954, American Doctor Frederic Wertham published "The Seduction of the Innocent", a study summarising his work on juvenile delinquency and its supposed link with comic books reading. This book caught the interest of a senator in the US. Soon after, the Senate launched an investigation on this topic. The results were inconclusive, but the damage was done (Yang, 2016). This study, together with the rise of television, put an end to the Golden Age of comics. Teachers were afraid of repercussions and stopped bringing comic material into their classrooms. Following the investigation, comics' publishers in the US created the Comics Code Authority (CCA), whose stated objective was censorship.

In Europe as well, serialised comics suffered from a bad image almost from the start (Groensteen, 1999). The use of images was perceived to seduce young readers and to lure them away from real information coming from text. The use of humour was considered to make youngsters stupid. Religious groups extensively fought comics that were – according to them – encouraging improper behaviour. In France, this led to the implementation of a law on youth publications in 1949. It regulated what could be depicted in material aimed to young readers. Interestingly enough, this law is still in force today.

Nevertheless, this did not stop comics' authors and a new age started – The Silver Age, with underground, rebellious artists. Comics in the 1960s became more adult-oriented. Authors started integrating the very themes (violence, sexuality, drug addiction, etc) they were criticized for a decade earlier (Yildirim, 2013).

1970s-1980s: The genre's reinvention

The Silver Age was followed in the 1970s by the Bronze Age, which saw the end of the censorship in the US, even if – per se – the CCA existed until 2001. The Bronze Age is followed by the Dark Age in the 1980s. This Age deconstructed the superhero

genre, introducing anti-heroes and complex psychological subjects and characters ("The Dark Age of Comic Books", n.d.).

1990s-2020s: The revival of comics as an educational tool

The use of comics in education is an old trend which is currently in a revival stage. Researchers started emphasizing their added value in the curriculum again in the 1990s. Comics can appeal to young people better than textual novels. They are means of informal education, in so far, they have long been considered as a hobby or a leisure activity and can also be a means of non-formal education. Many people can quote an example of a friend or a family member that became acquainted with literature or book reading with comics. This could be highlighted as one of the roles of comics.

Nonetheless, to this date, it is still a rarely used medium in classrooms at a European scale. Wallner (2017), looking at Swedish policy documents, concluded that comics had generally been left out by educational policymakers. Belgium and France make an exception: with a rich history in comics' creation, they do see them used in the classroom. In France, education authorities recommend their use. However, teachers deplore the lack of practical guidance from authorities (Depaire, 2009).

1.3 Comics as a tool for learning

Now, what is an educational comic? One could say that educational comics are the ones created with the purpose of learning and can be also used in classrooms by teachers and educators who are looking for materials with specific information.

Many educational comics have been published in the last years, and among the most popular examples, one can find the following:

- An example in science education: Mark Schultz, Zander Cannon (Illustrator), Kevin Cannon (Illustrator), "The Stuff of Life: A Graphic Guide to Genetics and

DNA". A graphic novel that tells the story of an alien scientist, which has been charged by his people to research the fundamentals of human DNA.

- A praised example in economics: Michael Goodwin, Dan E. Burr (illustrator), "Economix". The comic book explains the history of economic theories, from the rise of capitalism to the Occupy Wall Street movement in 2011.
- A more recent example that refers to computation thinking and coding: Gene Luen Yang and Mike Holmes (Illustrator), "Secret Coders". A series of small comic books that explain in an intelligent and entertaining way the methodology and concept of computing and coding.

However, one can learn from comics without them being written with the sole purpose to be educational. Here are two different examples:

- The most quoted: Art Spiegelman, "Maus" – also known as the first graphic novel to win a Pulitzer prize in 1992. It depicts the author interviewing his father about his time spent in concentration camps during the Shoah. The story is based on two timelines, the first one is in the author's present, the second is in Spiegelman's father's past, from the 1930s' Poland, until the end of the Second World War.
- The second most quoted: MarjaneSatrapi, "Persepolis". It is an autobiographic comic, starting from the author's childhood during the Iranian Revolution in 1979 to her adult life in Europe and the difficulties linked to her integration into the Austrian society. It also portrays her difficulties when trying to reintegrate into the Iranian society, several years after her departure.

Furthermore, to some extent, we could consider any Marvel classic superheroes-based comics as educational. They teach the reader about the core values, anxieties, visions and culture of the contemporary American society. The same can be told regarding Hergé's "Adventures of Tintin". Hartshell (2017) states that researchers have started to use the Library of Congress' comics books to explore societal

subjects, such as the evolving perspectives on the role of women. Indeed, on this subject, one can find several articles. According to Murphy (2016), in the Golden Age of Comics, the majority of visible female characters were companions or sidekicks to the male superhero. On the contrary, the last years have seen the rise of several powerful female superheroines in the Marvel Universe – Ms. Marvel, She-Hulk and Scarlett Witch, to name a few – showing a possible change in mentalities.

Selection parameters for educational comics

Looking at all these possibilities, Bucher and Manning (2004) advise to examine the genre, target audience, the art quality, as well as the reputation of authors and illustrators prior to introducing graphic novels in the classrooms. Also, it is important to keep in mind that some comics deal with controversial themes and might not be suitable for a defined age group.

The benefits of comics as educational tools

As we previously mentioned, comic role in education is well-know as it has been heavily studied, from the 1940s onwards. However, the censorship of the 1950s created an almost 40 year-long hiatus of the use of comics in the classroom. Researchers started taking interest in this topic again in the 1990s. Slowly, comics are being reintroduced in the classrooms – with good reasons.

Many scientists highlighted their positive effects and strengths with the first and most important factor that is to spur pupils' interest and act as a motivating tool. This asset was already underlined by Hutchinson in 1949: 74% of surveyed teachers found them "**helpful for motivation**". Reading comics is proved to be fun and support beginning and/or de-motivated learners by increasing confidence in their abilities like reading, writing and production skills.

Second, the power of comics in developing such skills is in the combination of text and image. Comics are a visual medium, which can support and benefit students with

a strong **visual sense and memory** (Ásbjörnsson, 2018).Because they present only the essential information, comics encourage students to 'fill-in the gaps' and create meaning out of the visually represented knowledge. In addition, by mixing image and text, it leads to a much easier understanding and memorisation of the key information. Hence, comics and graphic novels can very much support visual learners who might encounter difficulties in reading and memorization, but also enrich the skills of accomplished pupils too.

Furthermore, they are what Williams (1995) and Yang (2008) describe as 'permanent'. In this sense, using images and text in printed or even digital material, they enable readers to take their time to notice details and go through the panels again and again, in order to understand the story and visual information in their own pace. This facilitates memory anchoring and at the same time, simplifies the learning process by making it more **adapted to the individual**. As a contradictory example: in movies, language and actions are 'time-bound' and each action happens at a specific minute and is followed by another one. In comics, however, the story and images (and therefore time and information) progress at the readers' pace, needs and interest.

Additionally, comic books and graphic novels are great educational tools as they can **enhance certain skills**– especially regarding image analysis – necessary to young generations today, namely multimodal literacy. Burmarck (2002) argues that:

"The primary literacy of the 21st century will be visual: pictures, graphics, images of every kind... it's no longer enough to be able to read and write. Our students must learn to process both words and pictures. They must be able to move gracefully and fluently between text and images, between literal and figurative worlds" (Burmark, 2002 quoted in Yildirim (2013), p. 125).

Pictures are omnipresent in our modern societies. They are still or animated and appear via television, movies, the internet, and general advertising – within

newspapers, distributed flyer, street panels, etc. Most of the information is delivered through visual forms (Källvant, 2015). Unfortunately, images, like texts, can be manipulated. The ability to analyse them and their validity is essential in order to avoid being a victim of false information (Elsner et al., 2013).

However, several studies have highlighted the deficiencies in information analysis among young generations. Elsner et al. (2013), based on a study by Etus (2011) on multimodal literacy of English teachers, observed that most participants were not able to closely analyse and critically elaborate pictures and text combination. Elsner (2013)described multimodal literacy as "the ability to obtain, systematize, expand and link information from different symbolic system" and that is based on visual literacy, which describes as the "ability to decode, use, and create visual forms of expression" (Elsner et al., 2013, p. 57) . These are considered essential 21st century skills. Accordingly, in comic books is suggested images and texts should be read and analysed together, at the same time, in order to understand the full picture, therefore triggering multimodal literacy.

In addition to this, analysis of image in relation to text is according to Simmons (2003), quoted in Bucher and Manning (2004), a good tool to teach facial and body expressions, as well as symbols and metaphors to pupils – thus visual literacy.

Current practices with educational comics in classrooms

Let's have a look at how comics are currently being used in European curricula, by taking the example of the French educational system. Taking the recent study conducted by Depaire (2019), she concluded that comics are predominantly used to explain the code of the medium, hence, the aim is to teach vocabulary and techniques to discover the art behind comic books. The second recurrent exercise is comics creation in Art class, where students can be assigned with the task of creating a comic strip with various lengths or to design their self-portrait in a cartoonish style.

Such classes imply studying in advance comics' techniques to a deeper level. Depaire (2019) also highlights the usefulness of comics for analysing sensitive subjects. She mentions that one third of projects analysed during the study were using comics to deal with subjects such as discrimination or bullying.

These examples cover very little of the possibilities identified by researchers regarding the use of comics in educational settings. Graphic novels can be used in every academic subject, such as in literature classrooms to introduce or simplify complicated literary work. As Yildirim (2013) notes, one can find the graphic versions of Shakespeare's "Macbeth" and "Romeo and Juliet", of Melville's "Moby Dick", etc.

The process is the same regarding further educational subjects: comics can be used to explain mathematics or physics. In history, comics can give a visual aspect to abstract events and help students remember the most important parts. Furthermore, comics are especially useful for language classes for instance reading a graphic novel in a foreign language to understand the context. They are a great tool to teach vocabulary as pictures are usually drawn in correlation to what is being said in the bubbles. More examples and details about the use of comics for language learning will be given later in this chapter.

The participation of students in the comics' creation process

As educational tool, comics can be also used for implicating students in their creation. This is something that is already happening in French arts classes. Yet, they could be used for other subjects as well such as in STEAM (interdisciplinary teaching of Science, Technology, Engineering, Arts and Maths, or at least three of these subjects). Educational comics' creation triggers creativity and imagination while asking students to explain easily – to future readers – a topic taught in class. Teachers can then make sure that the subject has been understood. It can also help students remember the subject by adding visual elements. Last but not least, as

different software now exists, it allows easy comic creation online, with sets of pre-drawn characters and designs. Such software can be useful to develop pupils' ICT skills (Zimmerman, 2010).

A point on comics in inclusive education

In inclusive education, opinions about the use of comics are mixed. Zimmerman (2010) reports on teachers using computer-generated comics to help autistic people and trauma victims communicate and understand difficult concepts. She also mentions an initiative to help them with social skills. However, Depaire (2019) mentions the problems that can arise: the typography in comics is usually hand-written style, spaces between words might be irregular, punctuation might not follow usual rules, all of which can cause additional difficulties to learners with Specific Learning Disorders. This is a point to which we will come back more extensively in another chapter of this guide.

Despite all the above-mentioned positive effects and strengths, comics are still affected by their former reputation and teachers remain reluctant to integrate them into their classrooms. For example, gender differences could be said to make comics less attractive for girls than boys and therefore less efficient on one half of the classroom (Yildirim, 2013)– even though it is interesting to see that some genre, such as shojo manga, target a female readership. Additionally, some argue that images limit the students' own ability to visualise the story (Källvant, 2015).

However, these limits do not counter the positive arguments outlined earlier, which can easily outweigh them. The main reason is probably the lack of information, tradition and guidelines with regards to the use of comics as a tool (Ásbjörnsson, 2018). EdComix project is an attempt to fight these shortcomings in order to efficiently integrate comics in classrooms. Therefore, in the following part, we specifically focused on the different uses of comics in the classroom in order to

inspire teachers with an alternative methodology and approach to teaching and learning using this material.

1.4 Different uses of comics in the classroom

Another step forward in highlighting the benefits of comic books inside the classroom is to offer methodological uses which teachers can integrate in their curricular approaches. Comics have proved to be excellent resources to teach different school subjects according to Shirer's (2013) strong argument based on Professor Allan Paivio[2]'s research work, whose theory proved that students make better sense of what they read if words are associated with pictures.

Education relies on both visual and verbal codes, and these associative processes prove their importance in various learning forms, either formal or non-formal. Nowadays, children and teenagers live in a media world and seem to favour comic books at a great extent; so why not use this tool inside the classroom as well? Students enjoy reading comics for the sake of entertainment and educators may take advantage of this tool in order to boost their students' learning. Therefore, we will be working with three perspectives which help teachers set learning goals for their school subjects: 1) use of comics from the readers perspective, 2) use of comics as a group work activity, and 3) creation of comics in the classroom.

The use of comics as a reader

Whenever readers approach a text, they are prone to recreate it and as Beard (2001) describes, turn from passive readers into active receivers and look at a text according to their assumptions, attitudes or culturally shaped beliefs. Comics transcend barriers and become story windows encapsulating different socio-cultural styles which closely

[2]Allan *Urho* Paivio (March 29, 1925 - June 19, 2016) was a Professor of psychology at the University of Western Ontario.His dual-coded theory on cognition postulates that both visual and verbal help in recalling information.

associate with artistic expressions in order to make a whole. In other words, 'readers are caught between the act of perceiving and the act of reading' (Lardinois et al., p. 241).

Wright and Sherman (1994) speak about the creation of comic strips which allow teachers to promote literacy, higher level thinking and writing skills through the interdisciplinary approach of combining language and art. As the two authors suggest, visuals and especially comics are commonly used to encourage and develop students' interests and competences in reading. This graphic art can be colourful, fun and visually engaging, while the stories are generally dynamic and consequently, they spark the students' interest right from the very first panel.

The main process readers use is decoding:

- **Decoding images**

A research conducted by Clark and Lyons (2004) proved that the visual impact of images is greater than that of texts. According to Duncan and Smith (2014), readers are able to remember the narrative flow of the panels due to the enchainment between words and images.

Basically, the pictorial quality of comic books can be analysed from several points of view, such as position, size, perspective, framing, line colour – elements which are supplemented 'by the imagination of the reader' to create a 'totally new experience' (Lardinois, p. 248). Starting from pictures, students may improve more easily in story writing when the pictorial elements support text, as Cary (2004) claims, and thus acquire better vocabulary, grammar and syntax.

- **Decoding texts**

The comprehensibility of a new text is acquired when the reader understands the interaction between the text and his or her prior knowledge. Reading comprehension

refers to the ability to process text, understand its meaning, and integrate it with what the reader already knows. An accurate taxonomy on reading comprehension is offered by two linguistics researchers, Day and Park (2005), who classified the process accordingly:

1. Literal comprehension: readers perceive the text and its connotative meaning.
2. Reorganisation occurs when readers combine different textual pieces for additional understanding.
3. Inference requires learners to appeal to their personal knowledge to find the implicitly stated information.
4. Prediction combines prior knowledge with understanding in order to predict future actions within a text.
5. Evaluation is based on the general perception of the reading material so that readers may offer final judgement or opinion about the text.
6. Personal response is an open-ended comprehension of the text used by readers to express their feelings and emotions to the text.

The verbal sign uses font type, shape and size, position, colour, and the way it is used inside the comic books may arouse interest or have emotional impact on the readers.

Techniques for reading comics

How can we approach a comic strip or book? The answer is people look at comics differently. In western society, comics are usually read in a traditional way, from left to right. On the other hand, Japanese manga for example, reads in from right to left, but still from top to bottom (vertically) as in western style. Some readers will look at the pictures and words almost simultaneously, panel by panel. Some might read all the linguistic signs on the page and then go back to look at the pictures. Some readers will look at the images first and then go back to read the words.

Comic book elements as learning tools

Although they may vary according to the medium used, comics have visual and textual parts whose terminology was based on pioneers and their publications: Will Eisner, Scott McCloud, R.C. Harvey and Dylan Horrocks[3]. These anchored elements help us understanding how comic books function and nearly all these terms are unanimously common among editors. Furthermore, this linguistic code presented below in alphabetical order is also needed as a referential instrument in classroom activities when comics become learning tools.

Asterisks are references for more information towards a caption inside the page, or they simply explain an acronym.

Balloons represent the text holders in a panel, where different types (speech, thought, whisper, scream, broadcast) are used according to specific contexts. Speech balloons are usually round and contain the character's words indicated by the pointer or tail towards the mouth, to show the speech source. Together with thought balloons which are cloud-shaped bubbles that reveal a person's soliloquy, they are the most employed bubbles. Pupils are familiar with speech and thought bubbles (Yannicopoulou, 2004) and these can help them revise, for example, vocabulary or grammar lessons. Whispering is conveyed using small text in a big balloon or a balloon with dotted line, which can also be used to deliver a secret.

Spiked balloons and **double balloons** indicate screaming or shouting. Broadcast or 'electric balloons' have a lightning tail, also showing when someone is on the phone,

[3]William Erwin Eisner (March 6, 1917 – January 3, 2005) was an American cartoonist and early contributor to comics studies with his work *Comics and Sequential Art* (1985). Scott McCloud (born Scott McLeod on June 10, 1960) is a comics theorist and an American cartoonist, famous for books about comics: *Understanding Comics* (1993), *Reinventing Comics* (2000), and *Making Comics* (2006). Robert C. Harvey (born 1937)is an American writer, critic and cartoonist, having written books on the history and theory of cartooning, with special focus on the comic strip. Dylan Horrocks (born 1966) is a cartoonist from New Zealand, best known for Hicksville, his graphic novel and the scripts for the *Batgirl* comics series.

on TV or for robots. For more drilling, a comprehensive chapter in Forceville et al.(2010) is dedicated to various interpretations of balloon forms employed by different comic authors.

Breath marks, also known as whiskers, fireflies, or crow's feet, are three small vertical dashes accompanying gasping or coughing, represented inside curly brackets for scripts.

Captions or narrative blocks normally appear in the first or third person, usually setting the time and place in the panel**.** They are boxes containing narration or dialogue and communicate directly with the reader, without taking part in the action. Practitioners identify four types of captions: location and time, monologue, spoken and editorial. Location and time may be italicised, lowercase or having drop case. The monologue captions render the inner thought of a character, while spoken captions transmit a character's speech that is off camera with quotation marks and not italicised. The voice of the editor or writer is also italicised.

Two or more panels arranged in a narrative, predictable manner constitute a **comic strip.** For example, introducing autobiographical data of writer sand historical figures using comic panels sequentially could be a gaining activity.

Decorative or **drop caps** embellish the first letter in a caption, being stylistically chosen by the letterer, used with inner monologue or time and location captions

Whenever dialogue is interrupted, a **double dash** occurs, often mistaken for an **ellipsis**, an element used when the character stops the speech flow. Ellipses are usually met in wavy balloons with shaky tails, often with breath marks, to show physical or mental distress.

The smooth transition between panels is realised through a blank space called **gutter**. This narrow space outside panels may sometimes be invaded by objects or bubble speech for dramatic effect. Gutters convey passage of time or movement,

certain ideas or effects, allowing for the reader's eye to take a short break before moving to the next panel.

Italics are used for monologue, location and time, editorial captions, thought balloons, foreign words, text in a broadcast balloon, whispering and onomatopoeic language. Even though use of italics or even **Bold-italics**, are very common in comics (to put emphasis on a specific word), this format is not appropriate for readers with learning difficulties as we will see in more details in the 3rd chapter of this guide.

Light bulbs symbolise new ideas or solution to a problem given by a character and is a highly used pictogram in general media, as well, with the same connotation.

When a character speaks from an off-camera space, editors prefer using a tailless balloon and the device is called an **off-camera dialogue**.

Named by Eisner (2001) frames or boxes, **panels** occur in a juxtaposed sequence and are often contained within a square or a rectangle, triangle, also shallow horizontal or narrow vertical shapes. Circular or even irregular shapes can be also common. The sequential feature of panels facilitates different time spans, smaller panels represent time slowing down, while one single panel may induce a dramatic effect.

A **shot (close-up, medium, long)** is the filmmaking indications to locate the reader's eye and bring (close-up) or discard (long shot) tension on the panel.

The title of the comics can be contained inside a jagged-edge **splash bubble** on the **splash page**, a single panel which spreads on the entire page widely spread in USA and very famous in Manga as well. Eisner (2001) was among the first cartoonists to talk about splash bubbles. The splash page is an artwork page found at the beginning or for climax, emotionally influencing the reader and casting a feeling of drama.

Conversational panels use **text**. Words may also appear in speech balloons, thought bubbles, narrative captions or are freely put inside the page to suggest a 'sound effect' which is present though onomatopoeia (e.g. bang, boom, yikes). Only rarely are comics represented solely by images, considering that text borrows visual features to transmit something, e.g. loud sounds are rendered by large text. Students may indulge in text analysis and compare comic hand-written style and film subtitling, where text keeps the same font. On his blog, Vlahos (2018) offers a thorough font style chronology used in comic book lettering and digital guidelines for text format and style choice. Regarding this aspect, we would advise you to take a look at chapter 3 which refers to inclusion and learning disorders, to make sure that the font and text style you use or recommend to your students is adapted.

Aspects related to reading comics

There are several aspects that are also associated with the process of reading comics which are mentioned below:

Meaning is easily inferred through both images, which reduce the need to know every single word, and speech bubbles, a text delivery system. They eliminate unnecessary words and convey meaning quickly. In addition to these, idioms, sentence structure and vocabulary are illustrated and caught inside the action. Ausubel (2000) considers that, when pictures are contextually presented prior to reading, the readers are provided with background information and it enhances comprehension of the story while facilitating top-down processing.

All reading strategies are based on the assumption that texts engage the students due to **appealing topics**, related to their interests. Language teachers all over the world should give students reading materials providing visuals accompanied with the texts. The classical approach was to make students read books or excerpts from

'great' authors, which is a fair method to confront them with authentic, unabridged texts with a 'fixed and permanent meaning' (Beard, 2001, p. 4).

Additionally, there are comics that alleviate topics that makes the reader think about current **social and cultural issues,** such as bullying, racism, tolerance, civil rights, immigration, inclusion or even politics, environmental issues and health, to name a few. Many comic book superheroes, including iconic DC Comics and Marvel characters faced bullying and stereotyping as teens. The fact that comics can cover contemporary issues and topics suggest that they are not only a teaching material per se, but they embody a moral role as well, according to the meaning of the message they convey. Here is an example of follow-up task to be used in class activities based on comics for younger students:

- What is the problem identified in the comic strip/book? Create a superhero with three physical and moral qualities that may solve that problem.

Using comics in a group work activity

After seeing how images and text are decoded from a reader's perspective, we are now focusing on classroom group work activities. Literature, foreign languages, science, technology, engineering, art and math are domains that are easily recognised in superheroes in particular. Captain America is a product of science, Iron Man is based on technology, Thor comes from mythology, history and Indo-European culture, Black Widow's origins are rooted in the Cold War era while Black Panther pertains to social studies with roots in the civil rights era.

Comic jams are great as icebreakers or learning activities that can be done with any age group, or mixed age groups using different timing, because rules can be changed or adapted to specific conditions. For example, in science, assessing the human cell for one group or the digestive system in another group requires different panelling, timing, etc. Thus, students learn to represent their theoretical knowledge,

explore new experiences and critically challenge their peers' ideas. At the end of the activity, the teacher may organise follow-up discussions or link other tasks to this activity.

Dahlstrom (2014) affirms that, despite expository arguments, a narrative text is easier to remember, and we have already seen the positive impact on readers of text supported by images. Students in lower school levels can start with storyboard templates where they experience the key frame events and contracted text writing before moving to comic pages. Higher levels may be asked to create speech bubbles and include thought bubbles for the characters. It is also the moment when students keen on the film making domain may dig on staging or montage. For younger students, a 4-panel story is enough, drawing included. Storytelling tasks can be extended into biographical stories, where students learn about the work and lives of famous writers, scientists, painters, actors and actresses, presidents, politicians.

Literature workshops based on "The Classics Illustrated"[4] is a practical example of famous literary works reshaped into comic books. With message reduced to essential parts in a sequential technique, comics resemble poetry in terms of emotional and communicative engagement. A relevant example is Charles Schulz's[5] "Peanuts" strips, especially due to the four-panel pattern which reveals the sameness of rhythm, comparable to that of a short poem. In this regard, the traditional Japanese haiku is a 5-7-5 syllable poem meant to juxtapose feelings and emotions a condensed manner, and many strips belonging to Schulz could be expressed in haiku poems. Despite

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[4]Classics Illustrated (originally known as Classics Comics) is a comic book created by Albert Kanter, featuring literature works, stories and fairy-tales. The collection began publication in 1941, and finished its run in 1971, issuing 169 comic books. For more details, go to https://en.wikipedia.org/wiki/Classics_Illustrated

[5]Charles Monroe Schulz (November 26, 1922 – February 12, 2000) was a 20th-century American cartoonist best known worldwide for his Peanuts comic strip.

their conciseness, these poems may depict wide referential coordinates which teachers can choose or find inspiration to design this type of activity.

Matching text with images is an activity that requires previous knowledge and can be organised to consolidate the already taught information or to assess it. It is appliable to various subjects, from language to science. Students get a set of photocopied comic strips with blanked speech or text. They have to spot the differences and explain the matching responses.

Small groups could engage in **discussions** or **speaking activities** which continue with **role-plays** where the teacher provides situations to be acted out by the group. According to Harmer (2001, p. 117), group work "increases the amount of talking for individual students". Wordless panels may be challenging and also interesting for creative role-playing.

During **creating comic strips** for **school projects**, the students joined in groups can be assigned different roles, starting with the student who leads the group (editor), continuing with a skilled story writer, the artists who can draw and colour the images, filling the bubbles for lettering (see the **Appendix**). Thanks to friendly websites and apps, either preschoolers or highschoolers can become comic books creators.

Comic retelling with or without visual aids, prediction skills with writing or drawing the predictions, jigsaw, fish bowl, case study, problem solving, group writing tasks and project group work are but a few collaborative learning in group strategies that can be realised by means of comics.

Students need clear instructions and planning time prior to indulge in the tasks designed for them. Teachers make sure the topic chosen is interesting and resourceful, so that students thoroughly accomplish their assignment. Teacher to student and student to student feedback should be given at the end of the activity for future improvement. Classroom interactions help students improve learning

competences, develop better communication and self-esteem by means of 'exchange of thoughts, feelings, or ideas between two or more people, resulting in reciprocal effects on each other' (Brown, 2001, p.165).

Creation and uses of comic strips in the classroom

What do you need to create a comic strip? 'Pens and pencils are essential', in Lee's words (2010), even though we live in a digital era. As teachers, we might not have full time access to computers or smartphones. But when we do, Microsoft Word or even Text Edit can be more useful with students than any screenplay software programme, given the fact that students might not be all digitally trained users. There is also the online option and in spite of being easy to use and graphically appealing, these sites require payment, such as Storyboard That (2020).

Creating comics in the classroom could be fun, challenging and resourceful. Walking along the pathway found by Coron (2015) in creating comics, a guideline was produced for this type of activity:

1) Setting a clear and precise purpose for creating a comic strip.
2) Providing tutorials and supportive materials for the know-how, including for learners with SLDs.
3) Choosing an interesting topic in accordance with learning level.
4) Distributing tasks and dividing students in work groups according to their roles, as presented by Larson (2014):

Penciller: illustrates the comic (by hand or digitally).

Inker: can be also the penciller, adds with texture and more detail to the pencilled artwork.

Colourist: is responsible of providing the colour to a comic.

Letterer: provides words, balloon shapes, titles, sound effects.

Editor: person responsible for the creative direction, gives final artwork check.

5) Preparing for the task doing research work if needed.
6) Allowing students to accomplish their task while observing their group contribution.
7) Sharing work presentations and receiving feedback.
8) Assigning follow-up tasks to transfer knowledge acquisitions.

Examples of follow-up activities can be found at the Oxford University Press ELT (2019)[6] which promotes comic book projects where students enter challenging science domains as supportive learning tools. In addition, Educators' technology (2008)[7] encompasses several ideas which help teachers integrate comics in the classroom such as:

- Having students create a narrative storyline and illustrate it with relevant digital or handwritten graphics.
- Using comic strips to visually retell a story student know or have read in the classroom.
- Introducing a topic and encourage students brainstorming on ideas.
- Using pre-designed comic strips with missing panels that students can fill in the blanks and complete the story.
- Providing blank comic strips that students can use to write their own story or based on illustrated characters (writing activity, promote predicting skills).
- Discuss and raise awareness on topics such as racism, bullying and citizenship.
- Promote language learning by teaching vocabulary, grammar, communication (use of language in contextual situations), writing and reading.

[6] See field below for more information on educational web tools with comics https://oupeltglobalblog.com/2019/02/04/eight-ways-to-use-comic-strips-in-the-classroom
[7] See field below for more information on educational web tools with comics https://www.educatorstechnology.com/2018/01/teachers-guide-to-use-of-comic-strips.html

- Helping students improve their speaking skills by acting out comics or engaging them in oral discussions about the story, characters and general content of the comics.

On the following chapter of this guide, we will provide with more practical examples of using comics in classroom activities.

Comic strips can be an effective instructional tool to use in class with students from different grades. This is because they can engage students in meaningful learning experiences where they get to practice key skills such as writing, reading, speaking and communicating. The 'ninth art' ('le neuvième art' in the original text) as it is called by Groensteen (2008) is a resourceful domain for any teacher willing to bring comics into the class. Han (2017) also considers that comics are an effective way to present instructions due to their sequential pattern which facilitates systematic learning.

Concluding, comics help bridge the gap between students and school subjects through visual stimuli and contextual vocabulary. They can be reliable friends for teaching and learning in a thought-provoking manner, engaging students of different learning styles. Their conspicuous design has the potential to entertain and educate at the same time people of different age, social or cultural background. With comics, students become not only readers and observers, but also characters in their own productions, thus creating an emotional space which enhances participative learning. Also, comics do not demand excessive preparation, nevertheless the benefits in educational settings is high.

1.5 Comics in language learning

An interesting aspect of using comics as educational tool is that they can be a useful source of authentic and non-authentic material for language learning purposes. Their usefulness has been shown to relate to different dimensions of language learning,

including reading and writing, vocabulary acquisition and understanding idiomatic spoken language. In addition to that, they have been shown to be an excellent source of student motivation and engagement for language learners, and learners in general.

Looking at research findings which explore the use of comics in the language classroom, one can categorize the key findings according to numerous criteria, e.g. by skill (writing, reading, listening, speaking or by format (paper comics, digital comics, graphic novels, etc.). To facilitate navigation in the context of this project, findings are presented with titles in bold, followed by a short analysis of the key research that led to these findings. That way, the hasty reader may only read the titles, while the one interested in more details may read more or even consult the original research.

Comics can be used as a tool for traditional language learning exercises

To begin with, comics can be used as a springboard to engage in traditional language learning exercises and drills. Such exercises include the following:

(1) asking students to identify grammatical points in comic strip text,

(2) identifying or condensing the main aspects of a story through story mapping techniques,

(3) listing adjectives to describe comic strip characters,

(4) using comics as a reading prompt so as to later write about a relevant topic,

(5) using comics as a speaking prompt to talk about a topic,

(6) making up stories based on a comic,

(7) finishing a story told in a comic strip,

(8) turning the comic's direct speech to indirect.

Comics can change student attitudes towards reading in general

Whipple (2007) researched the extent to which unwilling readers could change their attitude towards reading, after reading comics in extra-curricular contexts, and whether that would impact their level of interest and overall performance in reading. Although students' overall performance did not change, students stated that comics increased their overall interest in reading, transforming them from unwilling readers to students asking for more comics in the class.

Comics can motivate language learning

The most frequently mentioned asset of using comics as an educational tool seems to be their ability to motivate. As Hutchinson (1949) and Yang (2003) state, 74% of teachers regard comics as an excellent motive, while 79% of them believe that comics increase participation.

According to Ishikura (2013), comics have a positive effect on vocabulary acquisition and motivation. Ishikura addressed learners' motive to learn Japanese as a foreign language and their perceptions of studying comics as part of their Japanese class. The findings showed that a large important percentage of learners started Japanese in order to understand manga and anime. Furthermore, they reported the experience of reading comics as part of their language lesson as a positive experience, stating that comics-based learning activities were motivating and empowered them to further continue their language studies.

Kılıçkaya and Krajka (2012) surveyed the impact of creating digital comics on learner motivation and use of grammar. Students reported that they had enjoyed the activities, which they found helpful with both grammar and reading, and motivating overall.

Comics can have a positive impact on vocabulary acquisition

Miranda et al. (2018) conducted a study on English language students to investigate the effect of comics-based instruction on vocabulary building. The study concluded that learning vocabulary through comics brought about better results. Similar conclusions have been reached by Basal et al. (2016) in a study focusing on the effectiveness of using graphic novels to teach idioms and vocabulary to university level language learners.

Comics can assist learning spoken language features and idioms

According to Williams (1995), comics are useful for familiarizing language learners with spoken language features and pragmatics. Comics, by being "still", enable each reader to self-pace their learning. Furthermore, by containing both images and characters communicating with each other, they pose an opportunity for students to pause and try to understand the various idiomatic expressions and fixed phrases in the context represented by the images. Hence, such interactional and communicative features make comics an excellent source of "still" and researchable spoken language.

Williams (1995) also discusses a framework for using comics in the classroom so that students understand spoken language features. This framework consists of four steps: observing, hypothesizing, experimenting and evaluating. By often exposing students to comics and always using this framework as a guide, students may form habits which may help them become autonomous readers / learners, learning how to ask and find answers on their own. The role of the teacher in using this framework is that of a facilitator who prompts learners to ask questions which will help them explore linguistic phenomena of interest. For example, the teacher may ask them to explain why a word was used by focusing on the context depicted by the image.

Comics can help students develop reading skills

Much literature surveying the use of comics in the foreign language classroom discusses the effect of comics on reading skills development, including building skills like making inferences and guessing from context or as an enhancement to their level of reading comprehension.

Karap (2017) investigated the effects of using comics in EFL classrooms of various levels. This investigation focused on the effects that comics had on participant anxiety, vocabulary recollection and making inferences from context. Although neither positive nor negative correlation was found between comics and anxiety levels, student ability to infer from context and overall recalling ability was found to be much higher after learning through comics. Thus, compared to traditional texts, comics and related genres may be of more assistance for students' reading comprehension.

Another study by Basol and Sarigul (2013) conducted on university level foreign language learners showed that when it came to reading comprehension, students reading stories in a graphic novel format outperformed student reading the same stories in other traditional formats. In addition, students reported higher levels of enjoyment by reading the story in graphic novel form. Their overall conclusion was that foreign language student reading skills can be improved by integrating comics and other similar formats, as long as they are accompanied by suitable activities and clear guidance.

Comics can help students develop reading strategies

Another area where comics may be a useful asset for reading comprehension development is that of reading strategies. A case study by Cimermanová (2015) explored the way ESL students dealt with unfamiliar vocabulary, and found that students were more willing to use strategies such as guessing and deducing meaning

from context while reading a comic they enjoyed, probably driven by their desire to continue reading the comic without stopping to use reference material. It could also be said that as comics provide a visual support and context, it offers more resources to infer meaning from compared to plain text, which can be more discouraging for a reader who is constantly struggling with unknown vocabulary.

Comics can help teach cultural awareness

Comics can be a useful tool for teaching and learning cultural awareness. They can help teach cultural differences, as well as develop intercultural communication abilities. Brown (1977), in particular, argued that a complete course of French culture could be taught through comics, because comics simulate real-life situations containing many cultural connotations. In addition, by using a visual and a linguistic code as well as the differences with the students' culture, foreign students' awareness of the culture in question can be easily observed. To do so, it is necessary to teach students to distinguish and identify cultural differences in a text explicitly.

Another study (Sakoi, 2015) studied American students' exposure to Japanese comics and found that students became more accepting of the cultural differences depicted in manga. In particular, Sakoi found that students responded to the comics in four ways: analytical, personal, intertextual and cultural. That means that the students looked beyond the written word and analysed the images in relation to the text, thus creating personal connections between them and the lives of the characters in the text, while using their cultural knowledge and experience to understand the comics.

In addition to all the above, Vassilikopoulou's et al. (2011) study produced similar results: creating digital comics helped students in terms of linguistic ability, use of imagination and cultural awareness.

Comics are a tool that helps students to deeply engage with texts

Mortimore (2009) proposed a method for using comics in the classroom: first demonstrating how a comic can be close read, i.e. read carefully and in detail as literary texts are close-read by literature critics, and then allowing students the space to practice close-reading comics on their own. By close-reading comics, the researcher found out that students engaged with the text on a much deeper personal and cultural level. The researcher also observed that the skills students developed through close reading comics were transferable to other forms of texts.

Creating paper comics enhances creativity and overall comprehension

Dedicating classroom time to creating comics also has the potential to motivate and engage learners, as well as improve their creativity, reading comprehension, grammar and vocabulary usage, research skills, and writing skills.

Morrison and Bryan (2002) suggest that creating comics in the classroom may increase student's creativity, engagement, comprehension and research skills. By being asked to use certain skills to create and represent meaning through the use of both text and images, on top of engaging and practicing content, students also reported elevated levels of enjoyment.

Creating digital comics helps learners without drawing skills

By investigating the same issue but in a digital comics context, Zimmerman (2008) came to the conclusion that creating digital comics can be an equally engaging process supporting students' reading, writing and vocabulary learning. He also adds that digital comics can be particularly relevant to visual learners that lack drawing skills, or even to students that have restricted reading skills, since they are not required to compose long stretches of text. This finding is particularly interesting when working with older teenagers or adults in general, who tend to shy away from

drawing at all, especially in the context of a group activity or as part of an evaluation process.

Creating comics is an activity promoting collaboration

Research seems to find that there is a low difference between creating digital and paper comics seems. Sri Wilujeng and Yu-Ju (2015) studied groups of students of Chinese as a foreign language who created digital and paper comics to examine the relation between creating comics collaboratively and acquiring vocabulary. Findings showed a positive correlation between creating digital comics collaboratively and overall student linguistic performance.

Combining reading comics and creating comics

Although most research seems to focus on either reading comics or creating comics, a number of researchers have also looked at combining the two.

Brown (2013) examined the effects of reading comics and creating comics on native and non-native English speakers. Students were required to read comics almost daily for 5 weeks, and then they had to create comics during4 weeks, and then turned them into a digital form. At the end of the experiment, students reported the experience as fun, stress reducing and engaging. The teachers reported that students' comprehension increased, possibly because of the comics' visualization factor. This seemed to be especially true for the demotivated foreign language learners.

Comics can help students facing problems with writing

Bledsoe (2010) investigated the reasons why many students who read fluently find writing difficult. The main reason, according to students, is that they do not know what to write. They might have ideas but lack the skills to follow a sequence and come to a valid conclusion. Furthermore, several students seem often to attempt to

draw pictures in order to construct and support their ideas. Hence, Bledsoe researched the use of certain comics creation software, whose creations could also be printed, emailed, or easily uploaded to a website. Bledsoe pointed out that should students possess the right skills, they could create movies, podcasts, digital stories and other written content that is recorded in media other than text. The skills learned during this process were essential in helping learners to spell correctly and organize thoughts into paragraphs according to the researcher.

Working with comics can change students' attitudes towards writing

According to Faulkner (2009), using digital comics can spur the students' interest in the written word. Similarly, Zimmerman (2010) pointed out that while learning a new language can be a daunting task, by encouraging students to work collaboratively, as creating comics normally does, the process can be significantly eased out. For example, for practicing new vocabulary or a grammatical structure, a teacher may ask students to create a comic strip using the words or constructions in question, which is amuch more engaging and effective way to practice linguistic and creative skills compared to more traditional exercises and drilling (Zimmerman, 2010).

Comics can ease and speed the language learning process

According to Thacker (2007), as soon as a language learner is ready to connect words with images, comics can be used as both a teaching and a learning tool, despite the student's overall language ability. He also suggested that comics-based instruction may help learners with language acquisition issues progress faster, simply by providing a visual context for the text. Thus, using comics in the classroom may serve as a steppingstone for producing continually more complex structures and dealing with highly coded devices like metaphors, symbols, alliteration, long narration, puns, etc.

Limitations of using comics in the classroom

First of all, using comics can be time-consuming. Teachers may need to spend time well in advance to prepare, and students will have to spend time reading or creating comics in class, thus reducing the time available for other language learning activities. Or they have to prepare at home, thus stealing time away from family or leisure time. To reduce this effect, teachers will have to have well-honed class management skills, and students will have to be well equipped to work in collaborative contexts.

Furthermore, especially when it comes to creating comics, both teachers and students may need to have certain pre-existing skills. For example, they might need to have some basic photograph taking or drawing skills, or basic internet research skills and copyright knowledge.

Moreover, they will need access to authentic comics in the target language, subscriptions to certain websites and collections, or to buy special software. They might also need access to computers and web-connection, something that may not be easy in all geographical and socio-economic contexts. Even in areas that are neither underprivileged nor remote, having multiple computers available and able to run simultaneously for several hours and at a reasonable speed can be problematic in schools with limited resources.

Another limitation may be that although using comics can be very suited for visual and probably kinaesthetic learners, they may be less helpful to auditory or other types of learners. This would be a problem that teachers may want to think about in order to solve it.

Conclusions

To sum up, using comics as a learning and teaching tool offers many benefits to language teachers and language learners alike, and in a variety of learning contexts. This seems to be due to the fact that comics attract readers of all ages, as they present text that tends to be written in a more accessible language than novels, e.g. using short descriptions and dialogues between characters.

The content of a comic is attractive and often colourful, while the writing style can be more relaxed, direct and accessible compared to that of literary books, academic journals or media articles. Thus, by introducing comics to teaching, teachers can manage to teach concepts indirectly, by having students focusing on images and narration instead of only on the taught phenomenon, especially when students work in groups. This reveals that comics offer opportunities to valorise students' diverse skills and therefore allow for more comprehensive learning experiences.

Furthermore, the use of comics in language learning seems to be a very effective way to teach reading and writing to low proficiency language students. It also seems to enable such learners to learn faster in the long run. Comics are a fundamentally visual medium. This visual aspect constitutes its primary advantage over other literary forms and can therefore assists low achieving pupils by enhancing their learning.

Additionally, using comics in the classroom may also reduce student anxiety, probably because it enables students to control their individual reading and learning pace. For the same reason comics may serve as a mediating steppingstone to learning difficult and complex concepts. They can also attract students towards reading in general, especially those who do not enjoy it or are afraid of it. Comic books have also been found useful in remedial reading contexts. Moreover, using comics allows students to express themselves and demonstrate their individual

aesthetic values. For instance, different students may create characters, settings and contexts based on things they like the most, thus engaging deeply into the process.

Furthermore, research shows that online comics, such as webcomic strips, web comic books and concept cartoons, area useful resource for motivating and enabling students to function collaboratively, as well as promoting learner involvement and motivation in general.

Last but not least, composing a comic involves a range of cognitive skills and processes. Creating a comic may require students to visualise, compose and take photographs, draw, illustrate, formulate series of events, and write and/or type dialogues. Students may also follow-up to reading or creating comics. For example, students may choose to act out a text, and record or photograph events, thus further activating complex student creative skills.

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CHAPTER 2

PRACTICAL USES OF COMICS IN THE CLASSROOM FOR LANGUAGE LEARNING

Introducing comics in the classroom might be complicated for teachers who have not much experience in the topic, but still want to try new, innovative ways and approaches to teaching and learning. Since in the previous chapter of this guide, we **have clearly established what the benefits of using comics in the classroom are** and why teachers should introduce this material to support their students' learning, the question at this point is how teachers can introduce activities that include comic material in their classroom.

Accordingly, this chapter will focus on the practical usage of comics in the classroom with examples and suggestions of activities that aim to inspire teachers so that they will be able to try and introduce these aspects/recommendations into their classrooms. In addition, we will focus on language learning as EdComix project targets secondary English language teachers and learners.

By all means, we consider that there are many possibilities that teachers can opt for introducing comic material for their students, and it would be impossible to include them all in the following pages of this chapter. Thus, we suggest to take the following examples as food for thought for the potentials of comics as a tool for teaching, and for spurring your motivation to build on these ideas and be able to create your own activities, adapted to the specific classroom needs.

Let's dive into examples of using comics in the classroom, presented in four different points of view: 1) using comics as readers; 2) using comics in a group activity; 3) from a producer's point of view and 4) using comics specifically for language learning.

2.1 Using comics as a reader

Introducing comics in the classroom

To start with, comic book, comic strips, graphic novels as well as web-comics serve as an alternative reading material. In the classroom, comics should be introduced as a reading material that students will observe, examine, read, try to understand and learn from. One of the most important elements in this process is to find the proper tools and right motivation to introduce comics in the classroom; and this requires some trials.

In general, some students might be familiar with this material, but others might not. Especially in school settings where students are frequently required to read long texts written in academic language without any supporting visual signs - At first glance, it might lead to the idea that comics would hardly fit in a formal education setting. In addition, students who are familiar and are used to reading comics might favour one style of comics over the others. The same goes for teachers: perhaps some teachers have a personal interest in comics but are not confident enough to introduce it to their classroom, while others may not have any previous experience with this world but intend to give it a try.

For these reasons, those who are interested in exploring and using comics for teaching should consider offering their students a variety of different comics so they can explore and find their own favourite style. Students will try and choose the style they like, and this is already something that may lead to a topic of discussion inside the classroom. For instance, discussions can be made around the different aspects of each comic material presented and include content, colour of panels, characters' position, illustrations and use of language. In addition, it is a good moment for teachers to hear their student's needs, experiences, preferences, and taste in reading material and learning style.

Foster imagination and communication

As explained in the theory in chapter 1, comics' style that combines images (visual support) and text is, by all means, an attractive reading material that can change students' attitudes towards reading and writing and help them discover the pleasure of making meaning. By analysing and interpreting visual information, readers can easily follow the storytelling and meaning making by using their imagination as well. As one of the first elements that students grasp are the illustrations, here is an exercise idea: in pairs or small groups, teachers can ask students to guess several feelings expressed by the characters on a comic page, e.g. happiness, sadness, joy, in love, anger, fright, etc. Older learners may interpret pictorial speech subtexts and create images to accompany text. Illustrations may also support storytelling or science experiments. Moreover, students can use comic strips to visually retell a story they have recently read, alter it, or even create a new one.

Engage reading skills and confidence

Reading comic material requires getting familiar with the writing and illustrating code and symbols, or as we can call it, the 'comic language'. An interesting activity for young comic readers is to discuss these symbols and characters used in the text, for example they are used to express concepts like being surprised, in love, thinking, shouting, etc. Teachers may ask the students to try and change the symbols and see how the meaning or the message is getting across.

Furthermore, comics can be used in activities to attract students towards reading, especially those who do not enjoy it or are afraid of it. Simple examples of activities to help foster student's motivation in reading are to engage them in discussions about the topic that the story of the comic depicts, and brainstorm on the ideas it generates, allowing students' personal response in expressing their feelings and emotions. Moreover, teachers can ask students to act out comics in order to improve

their speaking and presentation skills. When acting out, students need to identify and act on the speech marks and other expression elements in the page.

Develop reading strategies

As explained in the previous chapter, readers approach comic books differently: some will focus on the pictures, others on the text, or on both almost simultaneously, others might read all the linguistic signs on the page and then go back to look at the pictures, etc. In all cases, the pictorial elements in comics that support text can allow students to develop essential reading strategies such as guessing and deducing/inferring meaning from context and organizing thoughts into paragraphs that deal with one subject at the time.

A variety of activities can be developed to foster students' reading skills using comics, regardless of their age, level, or school subject. For instance, a math panel could be a student-friendly way to reach a treasure island by solving algebra and geometry exercises. Derrick (2008) suggests a comic jigsaw intended for paired students, and which includes panels where text has been blanked out. Students need to correlate a given panel and text, by attach text to the panel or panel to text.

As a written activity, students could fill in the blanks of the text of a pre-designed comic strip with missing panels. The purpose would be to complete the story by generating text for the blank speech bubbles. This activity may help them revise vocabulary or grammar lessons. Teachers may also provide students with comic strip panels that have been cut apart and ask them to put them in order to create a storyline, using their knowledge as well as humour/conversation patterns. Finally, comic books can be used also with lower level students during loud reading sessions for text comprehension, during which students are asked to respect the writing codes of the comic book while role-playing, for example.

Promote discussions about complex topics

Since comic writing style is more relaxed, direct, interactive and accessible, it allows open discussions about more complex concepts or serious topics that appeal to students, due to the indirect way of presentation in these books. Students focus on images and narration instead of the taught phenomenon, and this is a great opportunity to introduce, teach and learn about difficult historical moments for example, or complicated terms and math or science concepts. A good example of this category is Art Spiegelman's Maus I and II allegorical work, which retells the story of a Holocaust survivor (the author's father), using an extended animal metaphor by which the nationalities or groups that the characters belong to are represented by various animals (for instance Germans look like pigs, Jews like mice and the SS like cats) which passes a subtle but clear visual message

2.2 Using comics in a group activity

As we have previously seen, using different forms of comics can provide interesting ways to develop students' skills and confidence in a variety of subjects. We have described several uses of comics and already touched upon different sorts of group activities or tasks that can be adapted for groups of students. Therefore, in this part we focus on two examples of subjects which can become more relatable to students' realities through comics.

Prompting students to create their own story related to what they are studying

One of the main powers of comics when it comes to expressing ideas or transferring bits of knowledge is storytelling. Educational comics make the most of storytelling by focusing on a story to give a particular context to notions that are either complex or to which students have a hard time/difficulties relating. Therefore, an interesting group activity would be to ask students to create their own story or find their own context as to how a lesson topic studied in class could relate to them.

Case study with storytelling mathematics

Mathematics is often perceived as a difficult subject by students, and they can be discouraged to study the subject in depth, when they see limited practical applicability of algebra or geometry in their daily lives, or when they do not understand why studying a particular notion/concept is important in the first place. Here are examples of educational comics that use different approaches to the storytelling of mathematical notions:

- "The Cartoon Guide To Calculus" (Gonick, 2012): in this comic book, the author and narrator represents/impersonates himself into the story to guide the reader into the realm of mathematical discoveries, their purpose and their applications in the real life. He takes sufficient time to start with the historical context and with practical applications in day-to-day life before diving into formulas. Such a book could be useful to students regarding the study of a specific notion first, and then to discuss what they understood or didn't acquire.

- "The Manga Guide to Statistics" (Takahashi, 2004): the story of this book revolves around a high school girl who starts to take private lessons on statistics to impress her crush. Her teacher begins by presenting a theoretical element on statistics (such as categorical data vs. numerical data, frequency, mean, median, etc.), then dives into a practical example from the student's daily life (for example: "what is the average price of a bowl of noodles?"), and supports her reasoning step by step. After each chapter, there is a summary of the concept studied as well as exercises and corrections phrased in accessible terms. The annex of the book even demystifies the use of spreadsheet programs, such as Excel, to calculate statistics by providing an example of how to solve one of the exercises in a chapter by inputting data and using formulas from Excel. This is an interesting combination of rooting theory in practical examples and prompting the reader to try and calculate statistics at their

own rhythm. With such a book, students could take time to dive into each step of problem-solving and constantly ask others for explanations.

- "Cartoon Introduction to Calculus" Klein & Bauman, 2019): this book focuses on the context in which several mathematical concepts were developed and presents them in a scenario. Here, the historical context is emphasized over the detailing of calculus. Therefore, it would be a basis for students to include mathematical concepts into a story to link what is depicted in the comics, their lessons and the use of the concept studied.

Discussing the depiction of a topic in comics with its representation in literature

Classical literature and history may not feel familiar to most students: they might feel that the way the story or events are presented are not related or are applicable to the realities they experience.

In chapter 1, we touched upon the notion that comics, even superhero comics, could be a good basis to introduce a complex concept. A practical way to do so is proposed by Sellars (2017), who describes why and how he uses story arcs from the X-Men comics (Lee & Kirby, 1963) as an introductory exercise to study Golding's "Lord of the Flies". We summarise the main idea of this article here, but as this is a short and practical blog article, we would recommend reading it if interested to conduct similar activities in your classroom.

Sellars starts from the statement that when students read the summary of "The Lord of The Flies", they find the story outdated and unrelated to their lives. If the students are not equipped with tools to understand symbolism, allegories and how they are used in social critiques, Stellars finds that they remain at the surface of the text and lack interest in analysing the book.

Therefore, he chose to start with material that most of his students had heard about or were familiar with, namely story arcs from the X-Men series, to prompt his

students to discuss allegories, symbolism/these literary devices and how literature can facilitate thinking about their own lives and society.
As a short presentation: in Marvel comics, the X-Men are mutants, in other words people born with a different gene that grants them with supernatural powers. They are often the target of bigotry as they are perceived as a menace by some right-wing groups, and they often suffer from discrimination, especially when they have physical differences (such as blue skin, wings, fur, black and red eyes, etc.).

As the team was created in 1963, the story often deals with discrimination, racism and segregation, embodying the confrontation of Martin Luther King Jr. and Malcom X's ideologies with the leaders of the X-Men and the leader of their main enemy often using similar discourses to these historical figures (Di Minico, 2019). For Sellars, prompting students to discuss what they have studied in history class and how allegories are depicted in the X-Men is a good training for students to grasp the meaning of symbolism in literature, thanks to a less formal and more familiar story. After discussing symbolism with his students, he then dives into "hard" literary analysis of "The Lord Of The Flies" and continues prompting students to think about how the story could relate to them in a broad meaning in order to expand their reading experience.

2.3 From a producer's point of view

The added value of drawing or creation exercises is established for younger children and arts students. Self-expression activities tend to be limited to writing or purely presenting academic topics in secondary education. However, self-expression and artistic activities can value the students' input, strengthen their self-confidence, and encourage them to explore work related to school in more open and deeper ways. Here is a list of 5 strengths in creating comics on behalf of the educational context that have not been fully discussed in this guide yet. There are of course many more aspects, and we hope that this first list encourages you to identify other benefits of

supporting students' creativity and self-expression thanks to comics in secondary education!

Valorising extra-curricular skills and making school less formal

People who draw, or create in general, can be very shy to present and share their creations. This is even more true in an educational context, in which students who do not perform well at tests or assessment in general, might feel that creating things does not have anything to do with demonstration skills relevant to school. While works created during leisure time can be too personal for a student to show to their classmates or to their teacher, offering your students the opportunity to create comics to complete a part or a whole assignment can be an opportunity to allow them to bring in other skills, with which they could feel more confident than with academic skills. You could be surprised by the work that your students could put into a topic or an - assignment when you had the impression that they did not pay attention to!

Learning to give and receive feedback

Giving and receiving feedback is an important skill in the professional life, and one that could greatly improve the school experience if it is taught sooner. As mentioned above, creating a comic strip, a page, or maybe even a book is an immersive and personal process, and your students might not be used to exposing their creations. They might feel exposed should they be required to show their drawings or stories. While this should not necessarily prevent you from asking students to create comics, you should bear in mind that developing your students' ability to give and receive feedback is one of the first aspects to cover if you wish to do any sort of creative work with them.. Otherwise, they might feel ridiculed if there is any criticism. Communicate with your students about empathy, and about the fact that they

should make constructive comments about the creation of a student, not about the student himself/herself.

As it would be difficult to cover in the limited scope of this pages, if you are interested in knowing more about teaching and how to give and receive feedback, and even how this can actively support and integrate students with learning difficulties and disorders into the classroom, we propose that you read the lesson on this topic created in another Erasmus+ project called MOOCDys (2019).

Restitution of information

Creating a comic strip or page about a technical or complex topic is a good – but not necessarily an easy way for your students to dive deeper into understanding it, as it encourages them to explore it and maybe check any aspects, but they would be unsure about.

For instance, Association Stimuli is an association in France that promotes science communication and didactics thanks to the creation of comics. One of their activities consists in inviting a scientist or PhD student to present the topic of their research to high school students, who in turn create a comic to explain what they understood. The purpose of their activity is not necessarily to ask students to be great illustrators or storytellers, but to support them in finding their own voice to describe a technical topic. Participants have reported a higher confidence in their ability to express themselves on scientific topics, to ask questions and to reflect critically on one's work (De Hosson et al., 2018).

Reflecting on the creation process

Self-expression when creating a comic is not limited to drawing, creating the story, or writing the text. At the start of introducing students to comics creation, it could be greatly beneficial for them to take time to reflect on their creative experience.

Teachers could ask them to write a few words about it or to discuss this topic with other students. For instance, teachers could ask them to discuss such questions:

- What did you enjoy?
- What did you dislike?
- Do other students feel the same way about comics or other things they have created?
- What advice could you give to other students who would encounter the same difficulties?

An activity of self-reflection does not need to be long, but it is better if it is regular. On the long run, this can train students' learning to acquire this competence and support them throughout their education and beyond.

To improve students' presentation skills

Finally, all the benefits listed above could be said to lead to improving students' overall communication skills as well as their confidence in this skill. While some might be shy about talking in front of a whole classroom, writing a paper or doing other forms of formal presentation work, using a comic strip or page can provide an interesting way to encourage them to express themselves. Combined with a good ability to give and receive feedback, to reflect on one's work and with the experience of researching a topic and making it presentable to others, regardless of the result or quality of the created comic itself, it provides an engaging support for discussion with one's classmates and teachers. By bringing these informal skills into the classroom, students who might feel under pressure at school or who do not have the best marks can feel supported and valorised in exploring other ways to accomplish themselves.

2.4 Comics to support language learning

As our project aims to support secondary school English language teachers, it is essential to give some practical examples and suggestions on how to use comics in the classroom for language learning.

Comics are accessible resources, useful for language learners of all ages and levels (beginners to proficiency students) and for a variety of language learning activities. In fact, any activity using comic strips can facilitate students' competences in language learning, from vocabulary, to reading, writing and speaking, and therefore, using comics in the classroom is becoming more and more a common educational practice, especially for language learning. Below, we have listed some activities that are especially useful for language learning, summarizing some from the above uses of comics in the classroom as a reader, a producer and as a group activity:

Activity 1: Fill the blanks

Perhaps the most common activity that has been already mentioned before in this guide, is to provide students with empty (blank) comic strips and ask them to fill in the dialogues. Students should look carefully at the sequential wordless panels of a comic strip and fill in the balloons with main ideas and vocabulary provided by the teacher, or with the vocabulary they have prepared themselves as a part of a lesson. Teachers in this activity should keep in mind that the images are expressive enough for their students in order to produce linguistic output.

Activity 2: Complete the story

Another activity is to remove the explanatory sentences under the panels and ask students to either match them to each frame or write their own sentences that will 'tell' the story. In this way they will write a narration based on the images, following a logical narrative flow and using new vocabulary as well. The less advanced students might need vocabulary prompts on the board.

Activity 3: Finish the story

Teachers can also remove the final line in a comic strip story and ask their students to think of an appropriate ending. Students may feel free to invent and write their own ending using given or their own words, and depending on the age, needs and abilities of the class, teachers could also ask students to draw or even act out the final scene of the story and provide dialogue.

Activity 4: Comics Jigsaw

A simple jigsaw activity is to ask students to put frames of the comic strip in the correct logical order following the images and the text in speech balloons (if they exist).In addition, teachers could ask their students to tell the story as they have figured it out, using their own words, in front of their classmates. From these activities, teachers could also make links to grammar exercises and uses of the tenses for instance (what action happened first, what followed, etc).

Activity 5: Describe the characters

Teachers can ask their students to describe a comic character in a foreign language, either as a written activity, or as a group discussion or even in the form of creation of short sequences for sketches and improvisations. This could serve as a reading extension activity and help increasing students' vocabulary as well.

Activity 6: Transfer the sentence

For a language lesson that is more focused on structure, teachers could ask students to rewrite a comic strip dialogue in reported form or summarize the story in a short paragraph. This might involve the use of new verbs for reporting and expressing the characters' reactions and emotions, such as exclaim, protest, realize, wonder and so on.

Activity 7: Translate your favourite comic strip

Teachers could also propose to students to bring in the class examples of their favourite comic strips in their native language and ask them to translate a brief section into English (or another foreign language studied by the class). This could be done individually for advanced learners, and in pairs or small groups for beginners. In addition, once all students have finished, the translations could be compared and discussed with the teacher.

Activity 8: Replacing the words while keeping the same meaning

An interesting activity for vocabulary acquisition is to find synonyms or replacing phrases with words – or the other way around – but keeping the same meaning of the story of the comics. Teachers can explain and discuss with students the different meanings of the words they opt for and give a good analysis of their usage in everyday life as well. This activity may provide many opportunities to understand the spoken language. The teacher may ask students to explain why a word was used by focusing on the context depicted by the image.

Activity 9: Create a comic strip portfolio

If students have created their own comic strips in a foreign language, teachers may print them out and encourage students to read them out loud so they can practice speaking as well. Also, it is suggested to keep the comic strips created in their portfolios to review them and monitor their learning progress, but also to feel proud about their work, acknowledge their efforts and get inspired to create something new.

Activity 10: Speaking activities for advanced learners

Acting out a comic book is a great engaging activity for students of all ages, which can help practice speaking in a foreign language using comic simple, spoken

language. Advanced learners that have mastered the language level can investigate the cultural elements in comic writing – for instance use of humour– from a cross-cultural perspective, that students can later discuss in small groups.

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CHAPTER 3

AN INCLUSIVE PERSPECTIVE INTO PEDAGOGICAL USES OF COMICS

3.1 Inclusive approach in terms of Specific Learning disorders (SLD)

EdComix project aims to pay attention to creating a methodology for using comics as a pedagogical tool to learn English in **an inclusive way**. Inclusion in this sense, refers to accessible material for learners with respect to their cultural diversity, but also to an adaptive pedagogical content and approach to teaching and learning for people with Specific Learning Disorders. In this section of the pedagogical guide, we will focus on difficulties with reading and word processing in relation to adaptations that can take place in a comic material.

Most Specific Learning Disorders (from now on referred to as SLD), use the affix 'dys' to signify the partially lacking ability, like dyslexia for instance. The "dys" family of learning disorders is defined by specialists as a neurological issue that occurs independently of intelligence. They are specific, constitutional difficulties that may affect any or all areas of development – physical, intellectual, emotional, social, language, and sensory linguistic and sensorial – and may impair the normal process of learning. However, they are not unitary disorders and affect each person in different ways at different ages and stages of development, and to different degrees. Finally, they should not be confused with retarded development, although sometimes they are as they constitute a 'hidden handicap': under normal circumstances, children with SLD may appear not different from their peers, until new skills are tried or known ones taken out of context, then difficulties become apparent.

In relation to comics, there is a common misconception according to which comics are generally good for all people who struggle with reading or for "visual learners" as

they offer images to support the text. This is not necessarily true regarding learners with SLDs, who struggle with the overload of information presented on one page.

To analyse in depth the case of people with SLDs and the use of comics as a pedagogical tool, in the following pages we will first make an overview of the different learning disorders and their impact on school environment, and then will focus on ways to adapt educational materials related to comics for students with SLDs.

What are SLDs?

SLD is an acronym which stands for Specific Learning Disorders. This refers to a neurobiological cause that affects the way the brain processes information, for instance, how the brain can receive, integrate, retain and express information. As a result, and because the different phases of the brain's information processing are connected and inseparable, there are consequences in cognitive development and the primary abilities as show below:

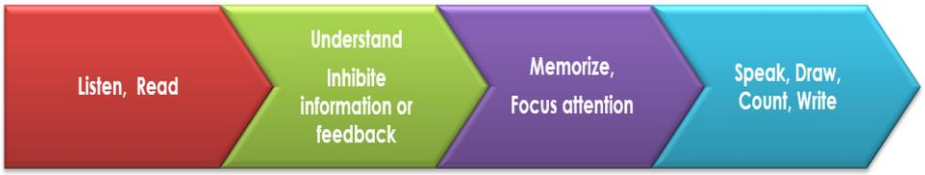

Image 1 - MOOC Dys[8]

Hence, people with SLDs have difficulties in reading, writing, speaking, calculate and problem-solving, planning and coordinating motor tasks.

Researchers acknowledge genetics and many other reasons as possible causes of each single or accumulated 'dys' differences. In fact, SLDs might be caused by a combination of difficulties in the cognitive development of abilities like phonological

[8]For more information regarding Specific Learning Disorders, see our Erasmus+ funded project MOOCDys here https://www.moocdys.eu/

processing, working memory, rapid naming, sequencing, and the automaticity of basic skills. On the other hand, it is important to note that SLDs are not stem from a physical impairment such as a visual or hearing impairment, nor from a motor disability, or a mental retardation. Also, there is no relationship between a person's level of intelligence, individual effort, emotional disturbance, or a disadvantage of the economic, environmental, or cultural nature.

There is no fully reliable estimation of the number of “dys” in Europe, but together they are believed to affect around 10% (for the French Federation of Dys - FFDYS) or 12% (according to the European Dyslexia Association - EDA) of people to a lesser or greater extent. According to substantiated scientific estimates, between 5 to 12 percent of the European population have dyslexia and specific learning differences, and struggle with following a non ‘dys-friendly’ approach in life and school learning environment. Hence, the proportion of pupils which who could potentially have trouble following reading materials if they are not properly adapted to their needs is higher than most people would expect. In addition, adapting pedagogical content to learners with specific educational needs, is beneficial for all students as it requires from the educator to think clearly about the presentation and phrasing of a lesson or activity.

The different types of SLDs include dyslexia, dysgraphia, dyscalculia, dysphasia and dyspraxia. Here below the characteristics for each type as usually listed:

Dyslexia is a cognitive disorder that causes difficulties in reading comprehension and language-based processing skills. The dyslexic brain takes longer than usual to identify and connect letters and words with other kind of knowledge, for example translating them into sounds. This is a very common disorder, also mentioned as a language-based disorder, and it can be overlapped with another disorder too.

Dysgraphia affects a person's ability in handwriting and fine motor skills. Specifically, a dysgraphic person may encounter problems such as illegible handwriting, inconsistent spacing, poor spatial planning on paper, poor spelling, and difficulty composing writing as well as thinking and writing at the same time. This disorder is often confused with dyslexia as both disorders are affecting the writing ability.

Dyscalculia affects a person's ability to understand numbers and learn math facts. Individuals in the case of dyscalculia, may have poor comprehension of math symbols and struggle with memorizing and organizing numbers. This is noticeable for instance when facing difficulties in telling the time or with counting.

Dysphasia typically involves difficulties with speaking and understanding spoken words. The symptoms cannot be attributed to sensorimotor, intellectual deficits, autism spectrum, or other developmental impairments. Likewise, it does not occur as the consequence of an evident brain lesion or as a result of the child's background.

Dyspraxia refers to difficulties with movement and coordination, language and speech. It is characterized by difficulty in muscle control (including eye control), which causes problems with movement and coordination, language and speech, and can affect learning. This disorder however is usually classified as a Developmental Coordination Disorder and not as a specific learning disorder, but we will address it nevertheless, as it impacts the learning process and education as well, and it often exists along with dyslexia, dyscalculia or Attention Deficit Hyperactivity Disorder (ADHD).

It is common to have several of the above-mentioned disorders and this co-occurrence of some of the 'dys' causes challenges. According to the 2014 publication of the French National Institute of Health and Medical Research, 40% of the children with one 'dys', also have at least an additional accompanying 'dys'.

To list some figures, the European Dyslexia Association considers that:

- 50 % of persons with dyslexia are dyspraxic as well.
- 40 % of persons with dyspraxia are either dyslexic or have differences in attention.
- 85 % of persons with dysphasia are dyslexic as well.
- 20 % of persons with dyslexia are having differences in attention with or without hyperactivity.
- 50 % of hyperactive children are dyslexic etc.

What is the impact (of SLDs) at school?

School environment can be challenging for pupils with SLDs as they need to make an extra effort to deal with their 'dys' ability. They also require working on a different rhythm as they have a slower learning pace. This is why it is essential to teach in ways that are adapted to their abilities and learning styles.

In the classroom, a specific learning disorder can be observed when there is an inability to automatize a type of tasks that most children and people have automatized rapidly or early on. For example, a dyspraxic pupil who ties his laces while the teacher makes an announcement, most likely will not have registered the information given as he would have concentrated fully at the coordination task of tying the laces. Later in this chapter of the guide, we will see reasonable adjustments that can be put into place in order to limit those situations of double tasks for 'dys' learners.

When it comes to education, each specific learning disorder can generate its own set of difficulties:

In **dyslexia**, for example, the action of reading and writing proves to be a very complicated and challenging task to acquire. This is because students lack the cognitive process of deciphering a text, and hence the brain takes longer than usual to identify and connect letters and words. Deciphering for a dyslexic pupil looks like having to read a text ~~of~~ in which half of the letters are either upside down, or exchanged with similar looking letters, or words are not divided correctly, but are attached or separated into different words. As a cognitive disorder that affects reading and writing areas, is a real challenge in the academic field and can slow the learning process of other skills considerably if left unattended.

In **dysgraphia**, the challenge would mainly affect pupil's handwriting ability and fine motor skills, which can include difficulties such as: remember specific orthographic combinations translating into poor spelling, poor spatial planning on paper, overlapping letters or words, difficulty to sequence the sentences into words, inconsistent spacing, difficulty of composing writing, or thinking and writing at the same time.

Another point where pupils may have added challenges is in the case of **dyscalculia**. This is translated to poor comprehension of math symbols and struggling with memorizing and organizing numbers. Thus, hindering them in calculus or abstract mathematical operations which has a real impact on the academic environment. These pupils may also have difficulty telling and estimating time, or simply have trouble with counting.

In the case of **dysphasia**, students typically present difficulties in speaking and constructing the structure of a sentence and /or a story but also in understanding what a person says. This causes struggle when making oral exercises and presentations that are often required in the classroom. Even answering a simple question can be a challenge, even though pupils know the answer. Also, dysphasia - like most of the disorders - results in difficulties of children's productive, receptive and social skills.

Finally, children with **dyspraxia** will usually have issues with movement, coordination, language and speech, which can affect their integration in the school environment and whole learning experience.

Despite the learning disorder, people with SLD tend to be hard-workers and find their own, preferred, way to reach the level of their peers inside the learning environment.
For example, a dyslexic student instead of writing a story as a homework task, could approach the task from an angle he/she prefers and either present it orally to the teacher for instance, or make a drawing / draw it. Parents, teachers and the whole school environment, should provide opportunities for these pupils to engage in learning, by taking care of their pedagogy and make adaptations to their teaching material and environment. That way we can reach access to a wider panel of competences and a diversified vision of our society.

How to adapt educational material in general

There are several techniques and small reasonable adaptations that can be madeso that everyone in a classroom may benefit from and, in particular, the students with SLDs.

Initially, special attention should be paid to the organisation of the psychical space of the **learning environment**. A quiet environment, yet with enough multisensory stimulation to allow for an in-depth learning, is essential for pupils with SLDs. Also, a quiet and not too cluttered space will help students have less distractions and keep them focused on the tasks and activities. Furthermore, a well organised and spacious space that allows the pupils to listen and participate t in the class (for example sitting in the front desks and being able to face the teacher), enhances students' orientation, space management and attention stimulation as well.

Adaptations can be made in the lesson's **structure**, **activities and tasks**. For example, starting the lesson with an explicit explanation of the activities and setting clear guidelines and goals, will be very helpful for all students and especially for those with SLDs. Also, multisensory methods such as visual, auditory and kinaesthetic, can facilitate learners' integration. It is crucial to insist on the important elements and avoid unnecessary information and distractions or giving too many tasks at the same time. Using visual elements for instance, to illustrate the concepts and highlight the important information or present the information in bullet points, helps increase students' focus and memory skills as well.

Another adaptation can be breaking down the tasks in manageable different steps and give students enough time to realise each step. In addition, teachers need to give explicit guidelines and make sure that all students have understood what they need to do before proceeding. Moreover, exercises should focus on logic rather than on memory and idealistic terms, and it is better to multiply the types of exercises to train students to process different types of situations.

Moreover, adaptation can be made in reducing the amount of writing tasks. Especially for all tasks involving fine motor skills, avoiding difficult manipulations can help in concentration on the content of the lessons more than on executing a supporting task. Adding to this, the use of creative and constructive activities can support students' inclusion and learning, as long as they don't require work around precise motor skills.

In addition, as working in groups is not always an easy process for pupils with SLDs, teachers can facilitate the work with a few adjustments. One thing, for example, could be to favour small, diverse groups but also teach some social rules to be respected by all. Teachers can also pre-assign a signal (e.g.: a tap on the shoulder) to prepare the students for a group activity and verify with them if they want to participate or if they prefer to watch the group work from the outside. Nevertheless, and by all means, teachers should enhance collaboration among pupils.

Regarding the **written material**, a general adaptation refers to the letter's font, size and spacing. This is essential for all learners but especially with those with SLDs as reading can be a great challenge. It is recommended to use font types such as Arial, Century Gothic or OpenDys. Also, an adapted spacing of 1,5 in between the lines, in a font size that should range between 12 and 14.

Moreover, the text should be aligned to the left but not justified so students can navigate and avoid skipping lines. For the same reason, the text should be broken down into smaller paragraphs and short, clear sentences. Ideally, it is better to structure the different steps or parts of the text with clearly distinguishable titles, subtitles, etc.

Finally, regarding the printed material, it is highly recommended to print on one side as it helps students to avoid the manipulation of having to turn pages. In addition, using colours to separate information and be consistent in the colour codes, is of a great importance as well. Especially for SLD pupils, it is advised to use off-white or pastel coloured paper whenever possible.

All the above-mentioned adaptations are basic and can be applied to help all the learners - not only those with SLDs. Especially regarding the written material, for either printed or digital format, it becomes obvious that adaptations are necessary also for the comic material. Therefore, in the following section of this chapter, there are specific adaptations regarding comics, which focus on ways to adapt educational materials related to comics for students with SLDs.

The case of comics and SLDs

A great part of our brain is devoted to handling visual input and therefore, the use of visual support strategies such as comic strips, is an effective and a vital successful component t for all students, especially for those who have learning difficulties or SLDs, or cognitive and behavioural disabilities.

Specifically, when it comes to students with SLDs, accommodations to learning often use this visual ability of our brain for easier processing of information. Yet, learners with SLDs might find some (mainstream) comics difficult to read because of the handwritten style text for instance, or of the page layout. Also, in digital comic material as well, in some cases authors have a constant change of fonts or might use very close shades of grey rather than contradictive colours. Such an example, the strip below:

Image 2 – page from "The Cartoon Guide to Science" by Larry Gonick

Thus, comics for pupils with SLDs should be conceived in specific ways in order to provide a clear structure and help these learners represent key notions of a lesson in more visual ways. In this context, adaptation to comic materials can be made in the below areas:

- **Text**

Comic's visual form makes them accessible in a way that most likely text may be a challenge for readers and SLD learners. Handwritten font can be difficult to read, especially for pupils with SLDs, and therefore is preferred to use an automatic (digital) one. Yet, nowadays there are more and more automatic writing tools? For comics which tend to use fonts that resemble a handwritten style – as this is the tradition of comic art. – e.g. fonts such as Comic Sans, considered to be "favoured by dyslexics" (British Dyslexia Association) but we need to emphasize that there researchers have not reach a conclusion on that. What seems to beneficial is that

some of the Sans Serif types (such as Arial, Verdana, Tahoma, Open Sans, Century Gothic and Trebuchet) are easier for some dyslexics to read.

Another point regarding the text in comics refers to the format of the text. For 'dys' readers it is best to be consistent in either using all capital letters (ALL CAPS) that is very common in comics anyway, or normal capitalization. This means not having a text where words are used in both uppercase and lowercase because it adds additional layer of difficulty for the 'dys' reader. Additionally, using ALL CAPS allows to fit more dialogues into less space and keep it clear, so it is better for visual readers or students with SLDs.

Then, it is highly recommended to avoid the use of italics for readers with SLDs. This is one important adaptation as italics is used quite a bit throughout comics, applied in dialogues, internal monologues, captions, broadcast balloons etc. A very common practice is to have italicise and bold (Bold italic) in order to place emphasis on a specific word or as opposed to regular bold (in the case of classic comics). This should be not the case of readers with SLDs. Instead, the word could be highlighted or turned into different colours. Finally, numbers generally should always be spelled out, unless they are a date, designation, part of a name or a larger number.

- **Panels**

The panel is actually the window frame showing that the action is taking place 'on-camera'. An adapted comic panel should be large enough and with clear outline, to help the 'dys' reader distinguish between the different actions and scenes. For an adapted comic material, the panel strips are essential for making the student conscious of the page organisation. Hence, the order of the panels should be adapted to help pupils with SLDs to have an easy navigation through the different panels and be able to follow the storyline. For example, for younger readers it could have arrows with directions to show where the story is going to. Accordingly, the

panels should follow a left to right order (for western countries), aligned and not in a random order and different shapes and sizes across the pages.

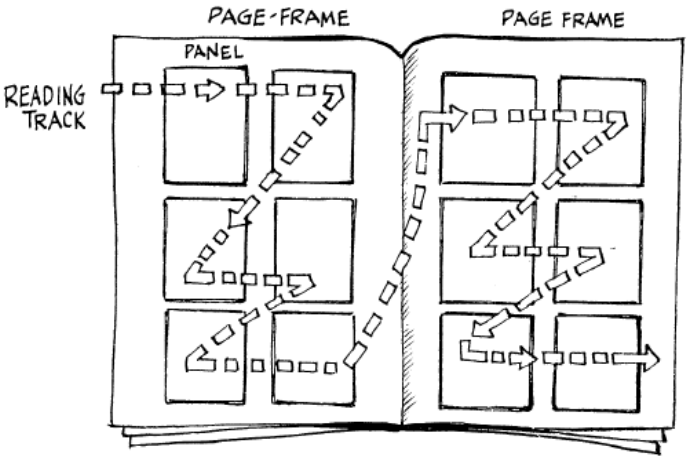

Image 3 - W. Eisner (1985), p.41

A controversial example of this would be the case of Japanese comic (manga), which have an opposite orientation and, thus, can be challenging for western 'dys' readers.

- **Bubbles and speech framing**

The comic bubbles (or balloons) attempt to capture and make visible to the reader the element of sound. The text inside a balloon reads from left to right and top to bottom in the western countries, and in relation to the position of the speaker, which for students with SLDs it is important to use **balloons tails** to indicate which character is speaking by pointing to the character's mouth.

The shape of the comic bubble can vary such as round, or a wavy balloon to signify a character in distress, or a double outlined balloon for emphasis, or a thought balloon for internal monologue. There is no problem in using different shapes of the comic bubbles for students with SLDs, as long as they stay consistent through all the comic book; but it is important to have enough space inside the bubbles for the text to fit, avoiding the use of hyphenating to break the word. Also, balloons should not be overlap with each other or with the frame of the panel.

On the other hand, having joint balloons (image 4) is not considered problematic.

Image 4- Joint balloons

Moreover, speech framing includes also **caption** boxes for indicating location and time, internal monologue, characters that are off-camera and the author's voice too. These captions are usually in the same font as the dialogue, or a bit larger, but always should avoid being written in italics or bold italics, as mentioned earlier.

- **Graphic design and illustrations**

A critical aspect that should be taken into consideration for adaptive comic material, refers to how the image is displayed, i.e. the graphic illustration and design. To facilitate reading for pupils with SLDs, a good quality of image, as well as printing in paper version, should be ensured. Intense graphics and use of many bright colours should be avoided, but colour contrast (black and white) and a clear outline is always a safe design. Furthermore, attention should be paid to the distance of image and text; that is not to be too far away so the reader can make the links easily.

By way of conclusion, simple adaptations to the comic material can be done in the above-mentioned aspects to facilitate SLD readers and making comics more accessible and inclusive for all.

3.2. Proposals for an inclusive approach of comics in education regarding socio-economic challenges, cultural practices and differences

After all, comics are made to create stories, and stories are hardly neutral. The author of any form of story creates in a specific setting, in a particular time, with preconceived ideas or references that the reader or audience must be equipped with to understand. In addition, each type of comics or genre has their own codes and structures and that allow to understand them.

Throughout this guide, we have explored how comics can support the learning process and highlighted the fact that this form of sequential art actively involves the reader in understanding what is happening between each panel. Consequently, we debunked the idea that comics would make learning easier because they would merely decorate the text, which would be the real focus of the learning process. We have also explored the idea that using comics in education is not necessarily as easy as putting images or pictures in a lesson to make it look better. Representations of gender, race, disabilities, cultures, religions or other identities or groups of people in general (e.g. smart people, strong people, etc) offer challenges and opportunities in terms of inclusion. Although this could be the subject of an entire guide, in this section we offer to equip you, as an educator, with examples and approaches to make sure you do not convey any bias you might not be aware of when you bring comics into your classroom.

We propose you to discuss two aspects of one's relationship to comics that could translate into bias in the way you would use in your classroom:

- First, let us explore the idea that some types of comics would be better to use than others in an educational setting, and see how to overcome this way of thinking,

- Second, let us take a look at how several types of identity could be represented – and misrepresented – in different types of comics and how to be conscious of the material that you offer to your students.

a) The importance of not discriminating between the different types of comics

If you made it this far in reading this guide, we would assume that you have read some form of comics at some point in your life. Therefore, you would know that you prefer some types of comics to others that you do not like very much, if at all. This is perfectly ok, it is just a matter of taste, as we would all prefer different types of books, movies, or music. The aim of this part is not to convince you to like, say, action-packed American comics, or contemplative manga about daily life in Japan. We would just like to share some thoughts to show you how you could think critically about your approach to comics in general, to education in particular, and to understand if you could – probably unintentionally – be conveying bias that might make some of your students feel disinterested in or excluded from your class.

We chose to explore three assumptions of how comics can be discriminated against one another, and how these criteria might convey value judgement and ultimately not necessarily be as relevant as one might think in an educational context: differentiating comics by origin or culture, differentiating comics according to their purpose (e.g. artistic vs. commercial), opposing published paper comics to webcomics.

Comics by origin or culture

Reducing the variety of modern comics to 3 groups – European, American, and manga/manhwa (as manga is not only produced in Japan) – certainly is limiting. As the purpose of this chapter is not to give you theoretical guidance or meta-analysis of what comics are or are not, we will allow ourselves to use this shortcut to make our point.

While there is a great variety of works in all 3 categories, we propose to use them as comics can generally be identified to use the codes of one type of comics more than the others. For example, there is now a rather mature wave of manga made in France, such as 'Lastman' (BastienVives, Balak, Michael Sanlaville) or 'Radiant' (Tony Valente). While some cultural references, such as jokes or the rhythm of narration, can bear similarities with the codes of European comics, these works can be considered as manga, as they mostly use the codes of this genre. In addition, such works are starting to be recognised as manga by famous Japanese authors, such as Hiro Mishima ('One Piece') or Yusuke Murata ('One Punch Man'). There are of course many other examples of comics related to several genres or produced outside of their original culture.

Either because of cultural bias or just because of personal preference, each of us will prefer a certain type of comics to another. While having a personal preference could hardly be said to be a problem, this might come with value judgement: for example, one might think that European comics are more noble (as we are addressing a European audience), while American comics would be low-quality commercial products and manga would be considered as badly-drawn. This kind of value judgement can become a problem in an educator's approach to selecting comics for their classes.

In her research about the relevance of adding comics to libraries' catalogues, librarian Agnès Deyzieux (2007) notes that comics in general, and manga in particular, are particularly appealing to teenagers as it is a genre that does not belong to school and it allows teenagers to belong to a group of peers that share a passion that do not belong to the world of adults. This analysis is substantiated by a study conducted by the National Editors' Association in France (Depaire, 2019), where the authors interviewed teachers and school librarians about their use of comics. One of the findings of this study is that in underprivileged areas, students

talk about comic books, American comics and manga, which encourages them to go to the school library to read comics. In that sense, comics can be appealing to populations that do not necessarily have a habit of reading: instead of reading with their families, they would read with their friends. Comics would not only bring these readers to the comics of the library, but to the resources of the library as a whole: an American study found that including comics into a library's catalogue can increase the circulation of the whole library collection two to four times.

In short, it is best for educators not to limit to using one type of comics in education as not only is defining one type of comic sometimes a difficult task, but by using a variety of comics, you would have more chances of finding what matches your students' interests and of including most of them in your classroom activities.

Comics by purpose

Do commercial comics have a place in the classroom? Are comics that focus on the artistic aspect of making comics okay to use, or would they be too complicated to use with students? Are crowd-funded comics ok to use? Should we just stick to using comics that would be marketed as "pedagogical" or as documentary comics?

For an educator that would already be using comics in their classroom, these questions would be easy to answer to. However, for a newcomer, or even as we wrote this guide, we did have to think about whether the purpose or the process of the creation of a specific comic would have an impact on its educative value.

In short, the simple answer is "no". There would not be any argument vouching for one type of comics that could not be debunked. Therefore, we would advise to mix them. You could use American comics alongside European classics, as well as a few online comic strips or and innovative forms of comics. The French editor "Editions Rutabaga", for example, creates innovative forms of comics that require more from the reader than just turning pages: the reader is required to fold, unfold, sew or turn

their comics. While these works are only available in French, you could offer an experience of manipulating comics to your students in other ways. For example, you could print separate comics frames and ask your students to find several ways to make a comic strip or page with them. This could be an interesting activity to include students with SLDs, for whom it can be particularly beneficial to have activities that are not only based on reading.

Regarding comics that are branded as educational, it is important to make sure they use interesting storytelling. If you use comics to include non-formal methods of teaching and you end up using a comic that would deliver a lesson just like you would, its added value would be limited. In the case of descriptive comics, such as some comics ordered by institutions, associations or companies to explain a topic, it is important to read them and to check whether they are trying to force feed the reader with information. If your students just feel that you use comics just as any other book or manual, they might feel more frustrated by the experience.

In addition, one could think about press comics as being informational. However, they are biased as they are made to express the point of view of their author, and they are made to be read in a context. Therefore, should you choose to use such strips in your classroom, make sure that you provide enough contexts for your students to be able to understand any underlining references (e.g. the use of symbols) in the strip and that it is made to express a specific point of view.

The idea here is that variety is the key not only to keep your students motivated, but also to avoid only having a top-down position towards your students.

The case for using digital comics

Following last point, as not all the readers of this guide might be aware of digital comics, we wished to provide a short introduction to these newer takes on sequential

art. Digital comics can be broadly divided into 2 types: web comics and dynamic digital comics.

First, let's see what web comics are about. Although amateur comics magazines have existed for a long time, it could be said that the internet has offered a wider and an easier way to reach audience to new comics creators thanks to blogs and social media. Authors such as Simpson artist Liz Climo, Sarah Andersen ('Sarah's Scribbles') or Nick Seluk ('The Awkward Yeti') create comics on a regular basis that are created to be distributed through social media. This format encourages authors to create short strips, around four panels that can be displayed entirely when someone scrolls on their screen. In that sense, they are meant to be catchy and to be read quickly. As a good number of authors deal with their daily life in such comics, they could catch the interest of your students as they might be able to relate to them.

Another form of webcomics has emerged lately, which takes advantage of the possibility to slide through images on Facebook or Instagram, for example. Here, the reader only sees the first panel and slides horizontally to see the next panels, one at a time. Authors such as Pascal Campion create comics that are meant to be primarily read this way.

It is interesting to see that some authors, such as Chris Grady ('Lunar Baboon') or "Shen" ('Owlturd/Shen Comix') change the format of their works depending on the platform they are using, which shows the versatility of publishing comics on social media.

All in all, as web-based comic strips are designed to be shared easily through social media, your students have probably read some themselves. Do not hesitate to ask them about their favourite pages and authors!

Note:

Several authors of web comics allow for others to use their works if they are credited and the purpose of the use is not commercial. In that sense, these could be interesting resources to teachers. You can always check the conditions as to how to use a web comics author's work in their FAQ or in their "About Me" section.

In addition, reading comics on a screen has opened new forms or new ways of reading comics, as Scott Mc Cloud envisioned when he stated that making comics digitally would offer an "infinite canvas" (2000, 2009). According to him, making comics digitally allows for potentially limitless space to develop stories and multidirectional ways to explore them. While some authors developed experiences around this idea, such as Daniel Merlin Goodbrey, such experiments are not necessarily accessible to all and were not meant to be widely spread.

One of the first large scale examples of using digital forms of comics could be when Marvel Comics started the "Infinite" collection in 2013, a collection of exclusively digital comics in which swiping will either move the reader to another part of the image they are looking at, change the image, or add speech bubbles, onomatopoeia, images or other panels onto what the reader already has on screen. Such comics can sometimes look close to animation, but the rhythm is close to that of comics and they are meant to be read as comics, inasmuch as you can navigate back and forth and choose to read panel per panel or page by page. While Marvel's Infinite collection is only available in subscription-based apps, others have developed dynamic comics (or scrolling graphic novels) you can read online for free: Marietta Ren's 'Phallaina' and Simon Kansara's and Emilie Tarascou's thriller 'Media Entity' are available online in French and English.

Thanks to the versatility of digital comics, whether they are simpler forms of web comics or dynamic graphic novels, we would encourage you to explore their use in

your classrooms. Web comics tell stories your students could relate to, and dynamic comics engage your students to read and experience the story in different ways: in both cases, it offers them plenty to talk about.

Comics, representations and misrepresentations

Being inclusive does not limit to the type of comics you present to your students, but also to the representations that these comics offer. While it might be tempting to think that comics are innocent or neutral, they convey ideas about what or who can be represented and how, as any other work of culture or media would.

As much has been written on the topics over representations and misrepresentations of identities in different types of comics — in this regard, what applies to manga could but would not necessarily apply to European comics for example — we do not pretend to cover all the debates in these pages. What we propose is to introduce three dimensions of this topic to allow you to be conscious of the possible representations of groups of people and tropes in your corpus and how to avoid excluding part of your students unknowingly.

As a cultural work or product, comics convey ideas related to their cultural context. In that sense, they should not be diabolised because they convey a simplified or negative image of a group of people: it is unlikely that they would be the only media of their time to do so. This statement is not made to be an excuse for any misrepresentation, be it voluntary or not, but it is essential to bear such factors and complexities in mind to use comics with your students in a smarter way.

First, we will explore comics and gender, gender roles and identity; then we will move on to representations of race, cultures, and history; and we will finish by thinking about different representations of disabilities and disorders.

Gender, gender roles and gender identity

Gender representations in comics is still an important topic among analysts of different forms of comic books. For example, there are two main trends in the representation of women in comics. First, there tends to be fewer significant female characters when they are not absent altogether. Second, female characters have historically been relegated to being represented along the stereotypes of caregivers or overly sexualised characters. While there are many studies on the topic, it would not seem possible to summarise them in these pages without risking simplifying their conclusions, thus making it easy to debunk based on one's personal reading experience. For example, Naoko Takeuchi's Sailor Moon's series, published from 1991 to 1997, is a topic of debate as to whether it can be considered feminist or not (Newsom, 2004). One the one hand, this manga tells about a team of teenage girls of different character who save the world several times; on the other hand, they do so in colourful outfits inspired from school uniforms. Regarding American comics, while female superheroes have gained in visibility, there would still be limits to the ways they are represented in terms of relationship to strength and power compared to their male counterparts (Murphy, 2016; Shendruk, 2017). Such analysis do not spare French and Belgian comics: while Becassine, one of the first female characters to appear in newspapers, was primarily created to educate girls to become good wives, it could be argued that she took a heroic turn during the wars (LipaniVaissade, 2009).

However, as our title implies, negative representations of gender do not only apply to women. While there tends to be a richer panel of male tropes to choose from in comics, there seems to be a fair share of athletic men. It can be argued that this sets difficult and sometimes impossible standards for boys to reach. Or simply, such models could be difficult to identify to. On the other hand, in popular culture, effeminate males and homosexual characters tend to be characteristics that belong mostly to the "bad guys" — or characters originally created as the enemy of the hero,

but who have become so popular that they became heroes in their own way (such as DC's Joker and Harley Quinn or Marvel's Loki).

In such a heated, rich and interesting debate, we would advise you to make sure that several roles and types of women and men are represented in the comics you choose.

Race, cultures, and history

With cultural and historical context come misrepresentations of other cultures, peoples, and history. We chose to highlight such perceptions as they might need more context than misrepresentation of gender, which can be somewhat similar over time.

Racial, ethnic or cultural representations, misperceptions and prejudices evolve over time and over borders: therefore, a cultural product may look normal at a certain time but appear shocking to a later audience. It can be the same process across different cultures. As mentioned above, this is not to say that these representations are to be excused, but it is important to bear these factors in mind to detect biased representations and to avoid spreading them without any explanations.

Let's start from an example. Say you want to use classic comics in your classroom, and you choose to work with Herge's Tintin, as the series can appear timeless: you could not pick just any book from the collection. 'Tintin in the Congo' (1931), the second volume from the series, offers a stereotypical vision of African and Africans. The Congolese are depicted as having a childlike behaviour, as being naïve and lazy, and they speak in a caricatural language. This would mainly come from the fact that this comic was ordered by Tintin's publisher in order to encourage young Belgians to settle in Congo, but Herge himself never set foot there and could only document himself from newspapers with a colonialist tone. Although some changes were made to the original album after the Second World War, this album still belongs to a very

particular context that needs to be explained to readers for them not to take what is depicted at face value (Bichler, 2019).

To provide a more contemporary example, in “American Born Chinese”, Gene Luen Yang tells the story of a Chinese American boy who moves and struggles to integrate in his new high school. This graphic novel also features Chin-Kee (for “chinky”), a character who embodies all the clichés and prejudices that Americans can have about Chinese people and Asians in general. However, in this example, this stereotypical character is exaggerated to be offensive to the reader and to make them understand that it does not feel nice to be assimilated with stereotypes. Then again, out of context, this character could be misinterpreted: the author mentions in an interview that some readers surprisingly thought that the character was “cute” (Barajas, 2016).

We could, of course, spread the list of misrepresentations or misperceptions of racial and cultural stereotypes and prejudices that can be conveyed through comics. Our point, here, is to encourage you to check the cultural context of the comics you would use in your classroom, as with any other material, and accompanying them with supporting explanations about the context to make sure it would be understood properly in case any characters or situations could be misinterpreted.

Disabilities and disorders

While representations of gender and race come quickly to mind when thinking about inclusive representations in comics, one might not think about representation of disabilities and disorders. Even then, one of the first categories of disabilities that would come to mind could be to represent wheelchair users. Here is an introduction to the topic, with a few suggested titles to use about specific disabilities and disorders.

Among the first examples of characters with a handicap in pop culture, you can think about Marvel's Daredevil and Professor Xavier, or DC's Barbara Gordon. Here is a short presentation of these characters: Daredevil is a lawyer who was blinded by a chemical during a traffic accident when he was a child, and developed a superhuman sense of hearing that allows him to perceive more than sight; Professor Xavier is a scientific genius with telepathic powers who became paraplegic during an encounter with an alien; Barbara Gordon was initially introduced as a classic crime-fighting super heroine but she lost the use of her legs by being shot at, and changed her persona to become a computer expert and assist other superheroes in their missions. These are interesting examples, and more examples can be found in European or Japanese works as well. For instance, some of Alejandro Jodorowsky's works feature characters with a handicap: the main character in 'Bouncer' is maimed and the main character in 'Moon Face' is mute. What is interesting with these fables is to offer stories of how some characters overcome what they or others might perceive as a challenge. However, these characters all evolve in fantasy worlds.

For more down to earth examples, the following list of works could provide an interesting start. They are available in English. We chose to provide a few examples of works that focused on telling a story rather than being primarily educational:

- "A Silent Voice" (2011-2014) by Yoshitoki Oima, is a manga that tells the story of a teenager who lost his friends because he bullied a deaf girl. They later meet again, and he decides to make amends.
- "REAL" (started in 1999) by Takehiko Inoue is a manga that tells about physical disability, sports and the desire to fit in.
- "Perfect World" by Rie Aruga tells a love story between a 26 years-old woman and her high school crush whom she meets again at a party, who is now in a wheelchair.

- “Invisible Differences” by Julie Dachez and Mademoiselle Caroline, is a graphic novel that tells the story of an adult who discovers she is with Asperger’s syndrome. It offers an interesting perspective from the point of view of someone with a disorder on the autism spectrum, while a lot of works deal with children with autism from their parents’ perspective.
- Mental health: Chris Grady’s ‘Lunar Baboon’ webcomics often deal with depression, and Sarah Andersen’s ‘Sarah’s Scribbles’ series often deal with anxiety.

If one of your students has a handicap or a disorder that you know of, make sure to introduce the topic mindfully in the classroom. While it is always a good idea to aim for diversity in the characters depicted in the material you use, always insisting on finding resources that explore one handicap or disorder because it concerns one of your students, could have the opposite effect: instead of including them, you might make them feel exposed.

Conclusions

This chapter served as an introduction to the many facets of using comics in the classroom in inclusive ways. Our point was to bring invisible barriers to light. Focusing on one type of comics, for example, or excluding another from the sources you select, might not reach your students as efficiently as you would have thought if you only use materials they have never heard about. This is why we would advise you to try and vary the sources you use: we hope we gave you enough basic knowledge about different genres, forms and topics to support you to try and explore new worlds in comics.

In addition, in an educational setting it is important to pay attention to the way comics show — or do not show — categories of people. For example, if you use strips or pages in which female characters are always caregivers, it can alienate

students who do not identify with this trope, and it gives a reducing image of gender roles. If you always show foreigners in traditional clothes in stories that emphasize their otherness, it can be alienating as well. We suggested ways to analyse the content of the materials you use as well as a few titles that deal with topics that are not always among the most tackled.

While this quick overview of inclusive ways to use comics in the classroom might seem overwhelming if you are new to the world of comics, whatever their form, bear in mind that popular examples can provide a useful basis for an approach to inclusion. Marvel's X-Men series, for example, are often perceived as a good entry point to discuss otherness and inclusiveness as it portrays a great variety of characters (Di Minico, 2019).

We hope this provides you enough food for thought to support you in selecting comics strips and books with your students!

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APPENDIX

School project work: Hand-drawn comic strip by Anca CONSTANTIN, 9th grade C.

"Mihai Bacescu" Technical College from Falticeni, Romania

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