ABIBOOKS SUPPORTING LEARNERS GUIDE

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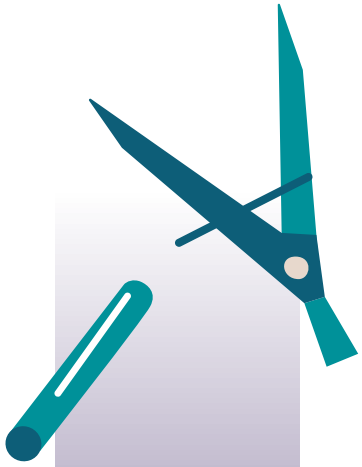
INTRODUCTION

- Mom, tell me a story, please!
- Sure, I'd be happy to tell you a story! Here's one I hope you'll enjoy:

Once upon a time, in a faraway land, there was a young girl named Lily. She lived in a small village with her family and they were very poor. Lily always dreamed of being able to travel the world, to see all the sights and sounds that lay beyond the borders of her village. But she knew she would never be able to do that, because she could barely afford to put food on the table(...)



Reading to children is a wonderful way to promote language development, literacy, and a love of books and stories. It is also a great way to bond with children and to create lasting memories.

When reading to children, it is important to choose books that are appropriate for their age and reading level and that capture their interest and imagination. You can also use different voices and expressions to bring the story to life and capture your child's attention and curiosity.

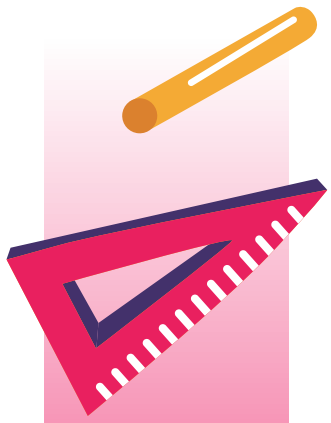
Reading to children can also be an interactive experience. You can ask questions about the story and characters and encourage your child to share their own thoughts and ideas. This can help develop their critical thinking and promote discussion and conversation.

Finally, reading to children is a great way to create a routine and promote relaxation and bedtime. It can be a soothing and calming activity that helps children relax and prepare for sleep.

Overall, reading to children is a rewarding and enjoyable activity that can help promote their cognitive, emotional and social development and create a lifelong love of reading and learning.

The Erasmus+ project ABI Books (Acquisition of Basic Skills through Interactive Books) is a project that aims to create interactive books, also called „ebooks", for children aged 0 to 8, to enable them to acquire basic literacy and numeracy skills in a way that is fun and suitable for children with possible learning disabilities.

"ABI books" will offer free resources including an library of interactive books and resources for basic skills acquisition, training material on interactive learning and storytelling.



Chapter 1. What is an interactive ebook?

The challenge of the definition

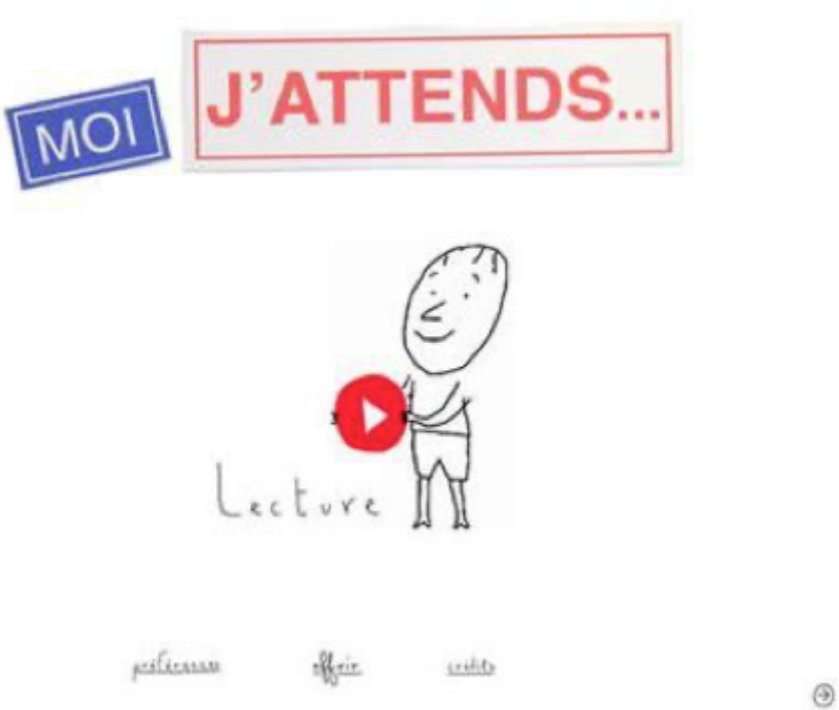
In order to define the term “interactive ebook”, we first need to define the term “ebook” which is not in itself an easy task. Indeed: unlike various cultural industries such as that of film and music, the book industry stands out in that it has not yet fully undergone its digital revolution (some say it might not undergo it at all). Indeed, digital counterparts to paper books still represent a small share of the book market (unlike the film and music markets: just think about how online streaming platforms have largely bypassed the weight of DVDs and to a lesser extent that of CDs and records).

As a result, digital books are still relatively scarce and the term itself might prompt widely different representations in people’s minds: black and white reflowable books that can be read on a kindle, illustrated webtoons that can be read on a smartphone, or even pdf files that can be read on a laptop - whether homothetic or downright scanned from the printed copy. While we might question whether some of these examples constitute valid examples of ebooks, they can altogether be credited for highlighting one core trait of what we mean by „ebook”: the fact that they can all be read on a digital screen.

The various forms of the ebook

The fact of the matter is that digital books are still dwelling in the experimental phase of their existence. It is nevertheless possible to spot some emerging standards within the industry, standards which take shape in the numerous ebooks in which they are embodied, and the formal conventions they tend to display. Among these standards we will cite in particular: **the smartphone (or tablet) app ebook** on the one hand, and **the epub ebook on the other**. Let's have a closer look at these standards through some works featured in the ABIbooks interactive book library.

The smartphone app type of ebook can be exemplified by Serge Bloch and Davide Cali's *I can't wait*. This work was originally published in paper format by the French illustrated book publisher Sarbacane in 2005, before being adapted into a short animated film by producer Claire Sichez in 2013, and into an app-based ebook (distributed in the app store and google play) by the production company Bachibouzouk in 2018. The story follows the life of an ordinary man from childhood to old age through a red thread that materialises key props of various scenes. The ebook edition of *I can't wait* stands somewhat halfway between the film and the book: like the former, it integrates multimedia content (animations and audio narration). But it also mimics the reader experience of the latter where one can choose to move forward and backward through the story, and at their own pace, by dragging and dropping the red interactive thread on screen in the absence of physically flippable pages.



The epub type of ebook in turn can be exemplified by Eric Sanvoisin's *My back to school anger* illustrated by Anna Obon and read by Robin Sevette. This children's book was coedited and published in 2017 by L'Apprimerie and La Souris qui raconte in paper and digital formats simultaneously, and it tells the story of a young man with down syndrome as he embarks on his back to school week. The digital format is available for streaming on La Souris qui raconte's web platform and the epub file (rather than an app) is available for download on the Apple Bookstore. The format resembles that of traditional children's paper books but presents the specificity of being enriched by an audio recording and interactive animations as well as requiring the reader's needed input to flip the page.

These two works are examples of what we may define most often as an „ebook", despite the fact that they pertain to different formats: the mobile app for one, and the epub for the other. But beyond the format, and beyond the fact that ebooks - in broad understanding of the term - have in common their being read on a digital screen, we can delineate some common patterns characterising ebooks as opposed to physical books including:

- **multilingualism:** it is common to find ebooks in several if not many languages since the marginal cost of production is decreased once the digital architecture of the work is set.

- **experimental narration:** many ebooks make use of interactive features and flexible tree structures made possible digitally to tell stories differently, in experimental ways.

- **greater inclusivity:** digital features and reading device parameters can facilitate the reading experience for readers with dys-type problems and other disorders.

- **nontraditional publication process:** the ebook production process involves a specific team of agents including illustrators, animators, voice-over actors and developers and excluding of course book printers and manufacturers.

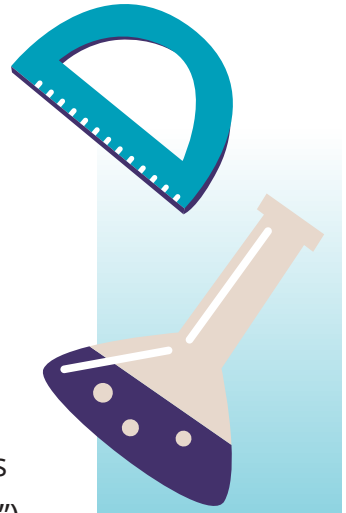
- **a seeming resemblance with videogames** since most often than not, the interactive features are summoned to create an immersive, almost gamified experience

These characteristics tend to keep the definition of interactive ebooks rather broad, but also make it an exciting format to distribute existing but also original literary works, designed with the entire range of digital features and possibilities in mind.

An emerging standard: the epub

That being said, it is becoming more and more common to define the ebook as an epub file primarily, a format we might define as an emerging standard for the digital book market as a whole. First created in 1991, the European Digital Reading Lab defines it as an „open file format for electronic publications."
Unlike other ebook formats such as Amazon's azw format, the epub is open: since it is written in XML, HTML and CSS and therefore respects the W3C standards, the epub is cross operable on any device (whereas amazon ebooks for one thing can only be read on a kindle). And unlike mobile apps, the epub format is designed specifically for „ebooks" and one needs to download but one app - or reading software - in order to be able to open and enjoy any given epub ebook.
The epub standard (currently EPUB 3) format exists in two versions which are labelled „reflowable" and „fixed layout" formats respectively. Indeed the first one offers the possibility of structuring a text in XML so that the architecture of the work is fixed while the content on display in the ereader screen „flows" as the reader flips the page or scrolls, but also as he changes the font size to achieve greater reading comfort for instance.
The Fixed Layout type on the other hand allows one to enrich the ebook by embedding image, audio, video and interactivity but also requires as a consequence the ebook's layout to be fixed, hence the name.
My back to school anger is of this fixed layout type.
In a sense, all ebooks are interactive since clicking on the next page button in order to flip the book constitutes an interactive feature. However in this guide, we will use the term „interactive ebooks" to refer to fixed layout epub (or smartphone app) ebooks in particular: that is, ebooks that make a significant use of interactive material such as video or animation responding to the readers' manipulation.

CHAPTER 2. PEDAGOGICAL APPROACH



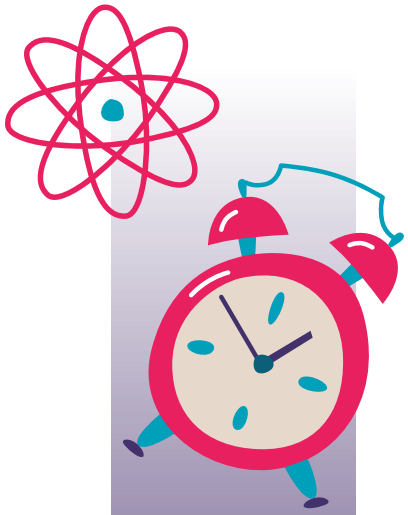
What is a pedagogical approach?

A pedagogical approach refers to the overall philosophy and method of teaching and learning that guides a teacher or educator. It involves the selection of teaching strategies, learning activities, assessment methods and classroom management techniques that are used to achieve specific educational objectives.
A pedagogical approach can be influenced by various factors, such as the teacher's personal beliefs and values, the subject matter taught, the abilities and needs of learners and the educational context.
(I would add a transition between the definition of a pedagogical approach and the principle in italics below by saying something akin to "Various pedagogical approaches exist and might be mobilised throughout a child's academic path, but in primary education they all have in common the goal to develop the children's basic skills.")

One of the most important outcomes of a primary education is the development of basic skills.

What are basic skills?

Basic skills are fundamental abilities and knowledge required to succeed in education, at work and in everyday life. Basic skills are usually defined as the minimum levels of knowledge and understanding required to perform a task or a function effectively. Examples of basic skills include reading, writing, mathematics, critical thinking, communication and digital literacy. Basic skills are essential building blocks for personal development and lifelong learning.



Basic skills for pre-school and primary school pupils usually include:

- Literacy: Reading, writing and understanding basic vocabulary.
- Numeracy: Counting, basic arithmetic, measurement and geometry.
- Communication: Speaking, listening and understanding spoken language.
- Critical thinking: Problem solving, decision making and logical reasoning.
- Creativity: Imagination, originality and artistic expression.
- Physical coordination: Gross and fine motor skills, such as running, jumping and using tools.
- Social-emotional development: Empathy, self-awareness and the ability to form healthy relationships.
- Digital Literacy: Understanding and using technology and digital tools.
- Environmental Awareness: Understanding the natural world and environmental issues.
- Cultural awareness: Understanding and appreciating different cultures and perspectives.

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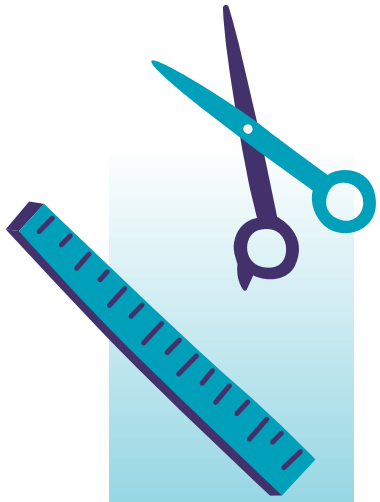
Literacy skills

This competence involves reading and writing skills and a good understanding of written information and therefore requires a person to have knowledge of vocabulary, functional grammar and the functions of language. It includes knowledge of the three main types of verbal interaction, a range range of literary and non-literary texts and the main features of the various styles and registers of language.



This competence also includes the ability to distinguish and use different types of sources, to search for, collect and process information, to use aids and to formulate and express arguments orally and in writing in a convincing and context-appropriate manner. This includes critical thinking and the ability to evaluate and work with information.

Numeracy **skills**

Basic numeracy skills include a sound knowledge of numbers, measures and structures, basic operations and basic mathematical presentations, an understanding of mathematical terms and concepts, and an awareness of the questions that mathematics can answer.

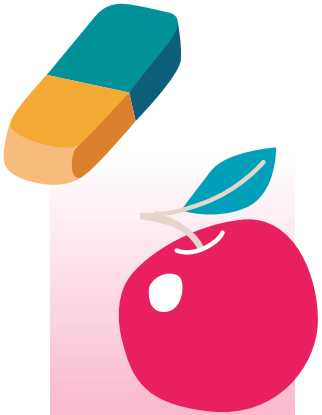
How basic skills can be developed

Now that we have defined the two fundamental basic skills, let's see how they can be developed during early childhood education.

Literacy skills can be developed through the following activities:

- Phonemic awareness: Engaging students in activities that promote phonemic awareness, such as rhyming, blending and sound segmentation, to support the development of reading and writing skills.
- Vocabulary development: Incorporating vocabulary development activities such as reading and book discussions into the curriculum to support the development of word knowledge.
- Reading comprehension: Encouraging students to read and comprehend texts, such as stories, poems and non-fiction, to support the development of reading comprehension skills.
- Writing skills: Incorporating writing activities such as journal writing and creative writing into the curriculum to support the development of writing skills.
- Technology integration: Using technology, such as computers, tablets and educational software, to enhance literacy learning and support the development of digital literacy skills.
- Collaborative learning: Encouraging students to work together on literacy activities, such as book clubs and shared reading, to promote teamwork, communication and critical thinking skills.
- Home-school connections: Encouraging families to support literacy development at home, such as by reading to children, discussing books, and encouraging writing.

Numeracy skills can be developed through the following activities:



- Hands-on activities: Using hands-on, experiential learning activities such as counting and sorting objects, building with blocks and playing with models to support the development of early mathematical skills.
- Number Sense Activities: Engaging students in activities that promote number sense, such as counting, comparing and estimating, to support the development of number knowledge.
- Shape recognition and spatial skills: Encouraging pupils to identify and manipulate shapes, as well as think about space and position, to support the development of spatial skills.
- Measurement skills: Incorporating measurement activities such as weighing and measuring objects into the curriculum to support the development of measurement skills.
- Data analysis and interpretation: Encouraging students to collect and analyze data, such as through surveys or experiments, to support the development of data analysis and interpretation skills.
- Integrating technology: Using technology, such as computers, tablets and educational software, to enhance mathematics learning and support the development of digital literacy skills.
- Collaborative Learning: Encouraging students to work together on math problems and activities to promote teamwork, communication, and problem-solving skills.

Integrated curriculum and interdisciplinarity

Beyond the use of activities listed above, an interdisciplinary approach to education can also contribute to the development of basic skills in pre-primary and primary pupils by combining subjects and themes to provide a more holistic and engaging learning experience.

What is interdisciplinarity?

Interdisciplinarity refers to the integration of knowledge and methods from several disciplines or fields of study to solve a complex problem or address a real-world issue. It involves collaboration and cooperation between different disciplines, such as science, technology, engineering, mathematics, social sciences, humanities and the arts, to provide a more comprehensive and integrated understanding of a subject. Interdisciplinary approaches aim to break down traditional boundaries between disciplines and promote a holistic approach to problem-solving and decision- making.

Here are some **strategies for incorporating interdisciplinary approaches into the development of basic skills:**

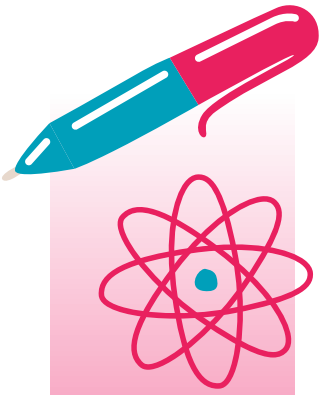
- **Integration of subjects:** Combining subjects such as science, social studies and mathematics to create integrated learning activities that support the development of several skills simultaneously.
- **Real-world connections:** Using real-world problems, projects and experiences to engage students and encourage the application of core skills in meaningful ways.
- **Collaborative Learning:** Encouraging students to work together on cross-curricular projects and activities to promote teamwork, communication, and problem-solving skills.
- **Inquiry-based learning:** Encouraging students to ask questions, explore and make connections between topics to promote critical thinking and problem-solving skills.
- **Integrating technology:** Using technology, such as computers, tablets, and educational software, to enhance interdisciplinary learning and support the development of digital literacy skills.
- **Environmental Education:** Incorporating environmental themes and experiences into the curriculum to promote environmental awareness, critical thinking and problem-solving skills.
- **Cultural Education:** Incorporating cultural themes and experiences into the curriculum to promote cultural awareness, empathy and social-emotional development.

By incorporating these strategies into their teaching, teachers and educators can support the development of basic skills in preschool and primary students and create a more engaging and holistic learning experience.

What methods and strategies do we choose for developing basic skills?

The development of basic skills in pre-primary and primary education can be achieved through a combination of purposeful teaching strategies and age-appropriate learning activities. Some effective methods include:

- **Play-based learning:** Encouraging play and exploration as a means of developing language, motor, social and cognitive skills.
- **Hands-on activities:** Using hands-on, experiential learning activities, such as arts and crafts, cooking and building, to support the development of fine motor skills, creativity and problem-solving skills.
- **Project-based learning:** Incorporating projects and real-world problems into the curriculum to engage students and promote critical thinking and problem-solving skills.
- **Game based learning:** Implementing games in a variety of educational contexts, an approach that has proven effective in promoting student engagement, motivation and learning outcomes in a variety of areas.
- **Literacy and numeracy-focused instruction:** Providing explicit and focused instruction in reading, writing, and math to support the development of these key skills.
- **Integrating technology:** Using technology, such as computers, tablets and educational software, to enhance learning and support the development of digital literacy skills.
- **Collaborative Learning:** Encouraging students to work together on projects and activities to develop socialemotional and teamwork skills.
- **Assessment and feedback:** Implementing regular assessment of learning progress and providing constructive feedback to support ongoing learning and skills development.
- **Encouragement and motivation:** Providing a positive and supportive learning environment, recognising and celebrating pupils' progress and encouraging pupils to take risks and persevere in the face of challenges.



One last method we recommend for helping children develop basic skills is that of story-based learning, which we will now define and explore in more details.

Story-based learning

Story-based learning is an educational approach that uses storytelling and narrative to engage students and support their learning. This approach involves the use of stories, narratives and other forms of fiction or non-fiction to convey information, convey emotion and illustrate concepts.
The aim of story-based learning is to make learning more enjoyable, memorable and meaningful by harnessing students' natural interest in stories and their ability to relate to characters and situations. This approach can be used across a variety of subjects, including language arts, social studies, science and mathematics, to reinforce and apply basic skills such as reading, writing and critical thinking.
Story-based learning can also help students develop empathy, cultural awareness and a sense of history and perspective.

Strategies for implementing story-based learning in the classroom include:

- **Incorporating storytelling into lessons:** Integrating stories into the curriculum by using stories as a teaching tool, either as the main focus of a lesson or as a supplement to other teaching methods.
- **Using a variety of story formats:** Experimenting with different formats, such as books, videos, audio recordings and live performances, to engage pupils and enhance their understanding of a story.
- **Encouraging pupils to tell their own stories:** Allowing students to create and share their own stories, either through writing, oral storytelling or other creative forms, to promote creativity and personal connection to the story.
- **Integrating storytelling with other subjects:** Connecting stories with other subjects, such as science, math or history, to reinforce key concepts and make learning more meaningful and relevant.
- **Using multimedia to enhance storytelling:** Using multimedia resources such as videos, audio recordings or digital media to enhance the storytelling experience and increase engagement.

- **Promoting discussion and reflection:** Encouraging students to discuss and reflect on the story and its themes to promote critical thinking and empathy.
- **Encouraging personal connections to the story:** Allowing students to make personal connections to the story, either by relating it to their own experiences or by connecting it to their community and culture.
- **Encouraging creativity and imagination:** Encouraging students to use their imagination and creativity to engage with the story, either by creating artwork, writing or making their own adaptations.

While implementing story-based learning in the classroom is important, storytelling by parents is also a powerful tool for promoting language, literacy and emotional development in young children. So below are some ways parents can use storytelling to support their children's learning and development.

Strategies for implementing story-based learning in the home:

- **Reading aloud:** Reading stories to children on a regular basis helps them develop vocabulary, comprehension skills, and life skills.
- **Creating stories:** Encouraging children to create their own stories, either verbally or through writing, helps them develop their imagination and storytelling skills.
- **Implementing storytelling activities:** Involving children in storytelling activities such as puppet shows or role-playing helps promote language, communication and social-emotional development.
- **Implementing story discussion:** Talking with children about stories they have heard or read, such as exploring the motivations and feelings of characters, helps develop critical thinking and empathy skills.
- **(Re)shaping stories:** Sharing personal stories and experiences with children, such as family stories, helps promote language development and build a sense of identity and community.

By using these strategies, parents can support their children's language and literacy development and provide a foundation for later academic success and general fulfilment. Storytelling can also foster emotional connections and a love of language and learning that will last a lifetime.

CHAPTER 3. SPECIFIC LEARNING DISORDERS

Beyond the teaching methods and activities we recommended above to improve the acquisition of basic numeracy and literacy skills, it is important to note that parents and teachers must also take into account the fact that not all children are the same, and some adaptations might be necessary to make the learning experience optimal for all, for students with specific learning disorders notably. But what are specific learning disorders?

What are specific learning disorders?

Specific learning disorders affect an average of two to three children per class.

They are called ‚specific learning disabilities' because there is a problem with one or more of the necessary elements used in the learning process. Reading, writing, speaking and numeracy are skills used by the child to learn at school level. These skills have various combinations of strengths and weaknesses. It is clear that when one or some of them are affected, the learning process is threatened.

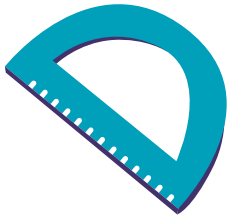
Thus, even if the child does not have an intellectual disability, he or she may have ‚inadequate' tools for learning.

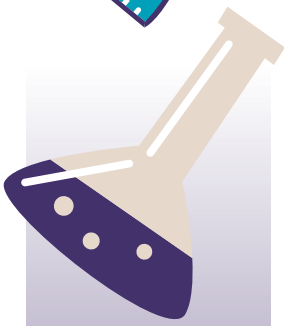
In simple terms: If you don't have the right recipe and method for baking a cake, even with good ingredients, the result will not be as good as expected.

When we learn, we are essentially processing information (the brain receives information through the senses) and if the brain perceives and/or processes this information differently, the approach will obviously be different too.

The most common learning disabilities are:

- **Dyslexia:** Difficulties with reading and writing.
- **Dysgraphia:** Difficulties with handwriting and some fine motor skills.
- **Dyscalculia:** Difficulties with arithmetic and mathematics.
- **Dyspraxia:** Difficulty with coordination of gross and fine movements.
- **Dysphasia:** Difficulty in producing and understanding spoken language.





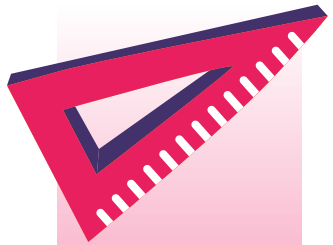
Please note that depending on the country, dyspraxia may be classified as a Developmental Coordination Disorder and not as a Specific Learning Disability; however, since there are many similarities with the other conditions described above, we will classify it as a specific learning disorders.

It is common for the same learner to have several DYS difficulties. Learning difficulties may ‚co- exist' or ‚overlap'. People with one specific disorder often admit to having signs of disorders occasionally.

Pedagogy of inclusion

Dys pupils need to be able to benefit from certain adaptations in the classroom in order to integrate the subject matter as well as possible. The way we teach must therefore be adapted to their educational needs and their specific way of learning.

It is always good to keep in mind that all students are different and that DYS students are no exception. There is no „one size fits all" way of teaching or „recipe for success". However, if courses are based on general principles of inclusion, they allow students of all abilities to better integrate and acquire the material they are trying to learn.



Inclusive pedagogy is therefore a pedagogy that adapts to all individuals in a very flexible way. This can be difficult for teachers because they have to design lessons that are suitable for everyone at the outset if they do not want to spend hours re-planning for each individual case separately. For this reason, many teachers are now using Universal Design for Learning (UDL), which can be very useful in providing a framework for planning their lessons.

Universal design for learning (UDL) is a form of instructional planning that aims to increase access to learning and reduce barriers for students with diverse learning needs and those from different cultural and socio-economic backgrounds. Educational researchers, policy makers and practitioners have adopted this framework to meet the needs of an increasingly diverse student population.

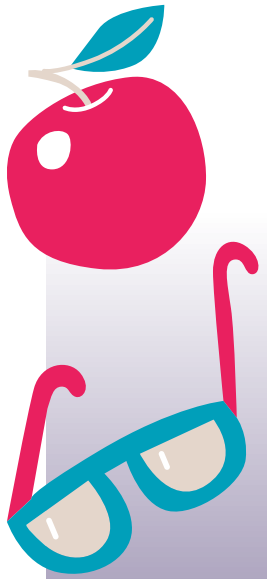
In other words, it is the application of flexible and inclusive strategies in the classroom so that every single student can access a variety of learning options.

In general, to make your teaching approach inclusive, it is good to apply these tips.
We know that they cannot all be adopted everywhere and all the time, but it can prove beneficial to view them as a goal towards which one should gravitate:

- Using an inclusive layout (sans serif font, no justification, sufficient line spacing, etc.)
- Displaying the objectives of the lesson
- Implementing varied task opportunities (more ways to receive information).
- Arranging flexible workspaces
- Giving regular feedback
- Using digital text and audio

Pedagogical advantages of using interactive books for students with SLDs

For children and teenagers with dyslexia, learning to read can be a real struggle. The use of digital technology makes it possible to support children in this sometimes complex learning process in a fun and interactive way.



In fact, the use of interactive books makes it possible to include the child in the story, to turn him/her into an active reader when he/she can make his/her own choices, for example, while at the same time making it easier for him/her to access the meaning thanks to the use of an adapted font.

This is probably the most obvious advantage of using interactive books. Most of these books make it possible to adapt the layout to the difficulties encountered by the child: choice of font, colours, brightness, etc. This allows the child to read and understand the text more easily, and to bypass some difficulties such as visual recognition difficulties or phonological and spelling difficulties.

Secondly, the digital books as we have designed them use short sentences which do not hinder the pupils' understanding by allowing them to access units of meaning more quickly than when the sentences are longer and more developed as in many paper books.

In addition, some stories include exercises that allow for the learning and acquisition of „basic" skills (math exercises, learning new words, learning new sounds, etc.). This makes learning more fun, while at the same time working on reading without the pupil being aware of it.

The use of interactive books thus makes it possible to restore the autonomy and self-esteem of children suffering from dyslexia. Indeed, they can adapt the books to their needs and progress. They can thus work progressively on this skill without being systematically uncomfortable and see themselves evolve gradually.

It should be noted, however, that in order to achieve this objective, it is essential to keep in mind the adaptations necessary for these children. It is therefore necessary to ensure that not only the content offered but also the presentation is inclusive. As with the pedagogical approach, we believe it is essential to design these books with a universal inclusive approach, i.e. to ensure accessibility for all. To do this, it is obviously essential to apply the layout advice mentioned above: sans serif font, no justification of the text, sufficient line spacing and an airy presentation. Once you have applied these simple tips, your child will be off to hours of fun and discovery.

CHAPTER 4. READING EBOOKS IN PRESCHOOL

Introduction

In the previous chapters we saw that the use of e-books has multiple benefits considering reading and comprehension skills in pre-school education. The benefits of the use of e-books become apparent when it comes to learners of young age, or to students that face learning difficulties.

Additionally, the use of e-books supports learners, as it offers a better understanding of concepts, which are presented through audiovisual media, such as pictures or videos. Furthermore, the quality of the reading procedure is enhanced through e-books, as they help learners decode vocabulary, obtain phonological awareness, and understand the meaning of words more clearly. What's more, young learners seem to express a preference towards e-books, and they are more motivated and interested in them. One main reason is that they are more interactive, and they give learners the opportunity to select the story, listen to it, and generally actively participate to the reading and story-telling procedure.

How can teachers use interactive books in class?

Children nowadays are growing up in a digital media environment where interactions with digital media are an increasing part of their daily lives in the classrooms and at home. More children, across all levels of society, are using interactive and mobile media on a daily basis. As a result of this exposure to technology, children today are at ease when it comes to using technology and have many opportunities to explore digital devices and play with them. Many activities in children's lives are digital, including early literacy experiences. Children's books are increasingly available in a digital format on electronic devices-often handheld and mobile.

Pre-school and primary teachers should introduce this new reality into their classrooms through technology. They have long used reading aloud as a way of introducing students to the pleasures of reading and books. Nowadays reading habits have been altered and they have to present their students with interactive books. How can they achieve it?

During interactive read aloud, teachers may ask questions so the students spontaneously make comments and help the story unfold. Making notes and comments in the process, children connect the story to their personal lives, create dialogues and explore how they can learn in everyday living situations. Teachers, when reading an interactive book, encourage children to play a more active rather than passive role.

Another way of using an interactive book is to watch it on a monitor and make children work on their comprehension while pictures move, pages turn, and voices change. In this way, they are asked to have their eyes and ears wide open to gain new world knowledge from stories.

Who can read an e-book?

The reading of ebooks is not limited to children on their own, but can also be extended to teachers, professionals who work in ECEC and parents.

Teachers for kindergarten and primary school

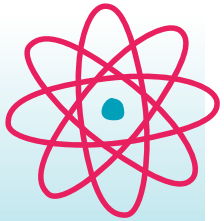
Teachers may read the book to themselves several times, think about the structure, the characters, the plot, and the images. Also, they must examine very well the learning goals for the students and how they can gain new knowledge while enjoying reading at the same time. This helps prepare them for an interactive reading where they will achieve plenty of things with young students with potentials that traditional books can't provide.

Professionals who work in ECEC

Professionals can effectively use the material with children. The possibilities that ebooks offer for augmenting children's early literacy experiences are exciting. The benefits of the use of ebooks are important for children with special difficulties. There are ebooks that have characteristics such as: read aloud, sign language etc. and correspond to their needs. Therefore, specialists can make their lessons more effective through the innovative use of ebooks.

Parents of young children

Parents can also read ebooks in order to spend creative and pleasant time with their children. Children are able to recall the story more clearly after having read it with a parent. Parents and children reading together fosters the onset of emotions throughout the reading, as well as the development of young children's language, expansion of their knowledge, and sharing of thoughts about things that children cannot easily express with words.



The use of ebooks at home is also highly recommended since it has been proven that families encouraging their use at home seem to produce more competent readers.

Additionally, the use of ebooks seems to achieve its main goal, which is to enhance the learner's literacy skills, and above all provide fun and interesting experiences that draw their attention, so they engage in reading procedure.

Children

Ebooks do meet kindergarten children's developmental needs without placing a heavy demand on adult support. Young children can listen to stories not only when an adult reads to them from a printed version, but also by themselves using ebooks on computers and tablets, an act that also makes them more independent and confident.

Books presented electronically by a computer offer a viable option for those educators who are looking for alternative ways to provide kindergarten children with occasions for listening to stories. Ebooks, therefore, might be useful in allowing children who have the capability to understand stories to engage in independent reading before they are capable of reading conventional printed texts on their own.

When is the appropriate time in the school curriculum?

Ebooks in classrooms could be used according to the curriculum of each country, the needs of the students and the educational goals. For that reason, ebooks must be flexible and easy to use.

Concerning the appropriate time to use ebooks, we suggest multiple uses during the day. Specifically:

- When children relax at school
- In specific lesson time when the teacher wants to introduce a new topic/wants them to learn something new.
- When the teacher introduces different topics regarding music, art, physics, chemistry the use of an ebook add pedagogical value through its interactive potentials.
- When the teacher wants to help a student with special difficulties.
- When the teacher wants to draw children to tasks that may seem boring. Ebooks can be challenging and thus raise the students' interest.

Methods / Features: Listening / Speaking / Drawing / Interaction

The use of ebooks can be introduced with different ways. Some methods are represented below for teachers, professionals who work in ECEC and parents of young children.

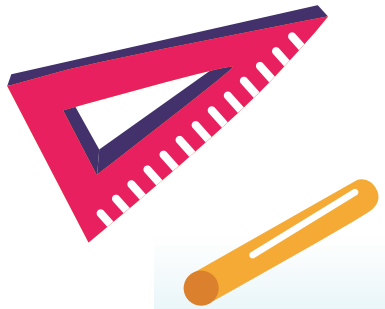
Audio narration which can be presented within picture books. Features such as word pronunciation, narration, sound effects and animation which support the text, all help to mitigate the effort of decoding individual words and allow children to focus on meaning, The story comes alive when different voices are heard during the narration. Very important also is the fact that young children can use ebooks independently, without requiring the presence of adults.

Drawing is also a method of using ebooks. A drawing that doesn't provide additional information enforces children to use their imagination and their vocabulary.

Interactivity. It is one of the key features of the digital environment that prompts children to engage and have fun. Interactivity in books is used in different ways and for different purposes: pop-up, open-the-flap, peep-through-the-hole books give children the opportunity to play and learn as they make things happen. The use of ebooks includes controlling the process, dramatizations, providing verbal responses, while at the same time it allows learners to participate in a multi- sensory way, as they combine vision, touch, and hearing. E-books include multiple sources of information and at the same time they engage the learners' verbal and visual stimulation.

Games which contain variable and quantifiable outcomes based on rules, are exciting for young children to get used to ebooks and gain new knowledge through play.

Puzzles which hide solutions and encourage children to experiment.



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CHAPTER 5. A DIGITAL BOOK: A SUPPORT FOR TEACHING

Introduction

Digital books are a significant support to traditional teaching alongside other tools. The attraction of an ebook, compared to that of a traditional book, is the opportunity to interact with it. The child can become an active and not just passive participant in his learning by adapting it to his own needs.
Faced with a digital book a child can change the font size for a more comfortable reading and choose different fonts to make it more enjoyable. These formal actions and many important others help the reader understand and learn through a digital book. In this chapter some examples will outline operational and reflective clues to lead the child to self-discovery and self-learning.

Before going into the specifics of the various disciplines, it is good to be aware of the transversal nature of the basic skills that the approach with a digital book promotes.

I chose it because...

Reading a book implies the development of multiple skills and abilities. In particular, a digital book helps to promote motivation, curiosity, memory, concentration and autonomy. A digital book is appealing for a child that approaches the autonomy of reading for the first time. It can promote early acquisition of literacy and of logical-mathematical skills.

I read it with...

The large number of input in a digital book allows children to deal with it without the help of an adult. While reading a digital book with an adult, the child can reach specific learning skills through a wide flexibility of choice and use. The playful charm of the digital book allows the use of it in peer to peer education. Children can play with the book and share learning and skills.

The digital book at school

In a school of „digital natives", ebooks can integrate, simplify and enrich teaching, making it more interesting and dynamic, because:

- It makes the teacher-student interactions more fluid. The two are no longer separate, and purely notional and interdisciplinary learning is promoted.
- It mitigates learning difficulties thanks to visual, sound and interactive prompts which help children reach a better autonomy.
- It allows everyone to find the strategy that best suits their style of learning through experiential approaches.

In linguistic and anthropological area:

It can implement:

- Listening and understanding skills (reading voice, games and quizzes in the story...).
- The vocabulary and meanings (link words and/or images).
- Temporal concepts, such as succession, contemporaneity, logical and causal links (interactive games, tale's reconstruction and manipulation...).

Logical-mathematical area

It can improve:

- Mathematical and logical learning skills: classification, seriation, quantification, relationship, progression, regression...

Scientific and artistic area

It can develop:

- The ability to observe, explore and analyze the surrounding reality.
- Curiosity and critical skill.

Emotional-affective and social-relationship area

It can implement:

- The ability to analyze and manipulate situations related to emotions and relationships.
- The ability to identify and manage his/her own emotions.

How do I use it...

- By opening windows: some digital books contain objects, such as texts or graphics, linked through hypertexts to explanations and dictionaries. Sometimes they are linked to augmented reality images and sounds. These links can refer back to interactive windows with multidisciplinary and interdisciplinary topics and allow young readers' vocabulary to be enriched with multiple sensory stimulations.
- By reading along a narrative voice: following a written text, listening to a narrating voice, allows you to better express yourself and to recognize the different graphic characters even at an early age.
  In numeric texts, the reading voice improves the recognition and memorization of the number.
- By intuitively browsing through the topics, re-editing the story: compared to paper books, the digital medium makes it easier to change the sequence of the story, "jumping" from one part to another, changing the end, modifying characters and/or scenarios. By doing this, children enrich their forecasting and planning skills by following intuitive logics and by implementing the logical and causal skills.

Conclusions

A digital book is a useful tool for consolidating learning in an extremely effective way, particularly with DYS or non-native speaker children.
However, digital and traditional books complement one another and a fair balance must be achieved when using them.
Thanks to the mediation of parents and educators, children can gradually become aware and critical 'digital citizens'.

CHAPTER 6. ABOUT DIGITAL BOOK TECHNOLOGY (ALSO KNOWN AS EBOOKS)

An interactive book is an electronic or digital book designed to include active reader participation via links or embedded reader-enacted functions. Interactive books can come in many forms, but they all draw in the reader through action. These books could include pop-ups they are interactive by touch or tap, users can sing with them or be encouraged to movement *(find more information in the chapter 1).*

In this chapter:
you will get acquainted with software (apps) for several types of devices for „reading" interactive books
You will become familiar with the applications we have selected that are designed to read interactive books on a computer, tablet or smartphone.you will get acquainted the basic information about programmes for creating interactive books you will be familiarised with the basic steps how to create your own interactive book using pubCODER (more in DIY developed under this project).

The technology used is ePub3, which is a widely accepted standard for the publishing industry.
It enables the creation of digital books, allowing the integration of texts, images, audio, video and interactivity.
This type of digital book can be accessible to person with impairment.

Digital books are possible to read on a computer and mobile devices using a reading app.
Our books will be available for download from the ABIbooks publisher's website

With the use of reading apps, ePub can be saved and are available without internet connexion.

Our recommendation is Thorium Reader application. You will need to download and install it on your computer.
This software is provided by the EDRLab for free. It is highly accessible, multilingual, and multi-format with no ads or private data leakage.

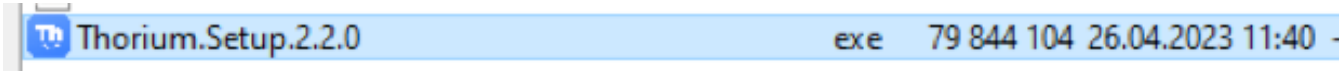
https://www.edrlab.org/software/thorium-reader/

How to use Thorium Reader:

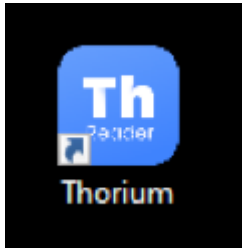
1. Go to the download right version for Your system:
Here are links to:

The Windows 11 version on the Windows Store.
The Windows version on the Github platform.
The MacOS version on the Github platform.
Linux versions are also available, please check their website for more information.

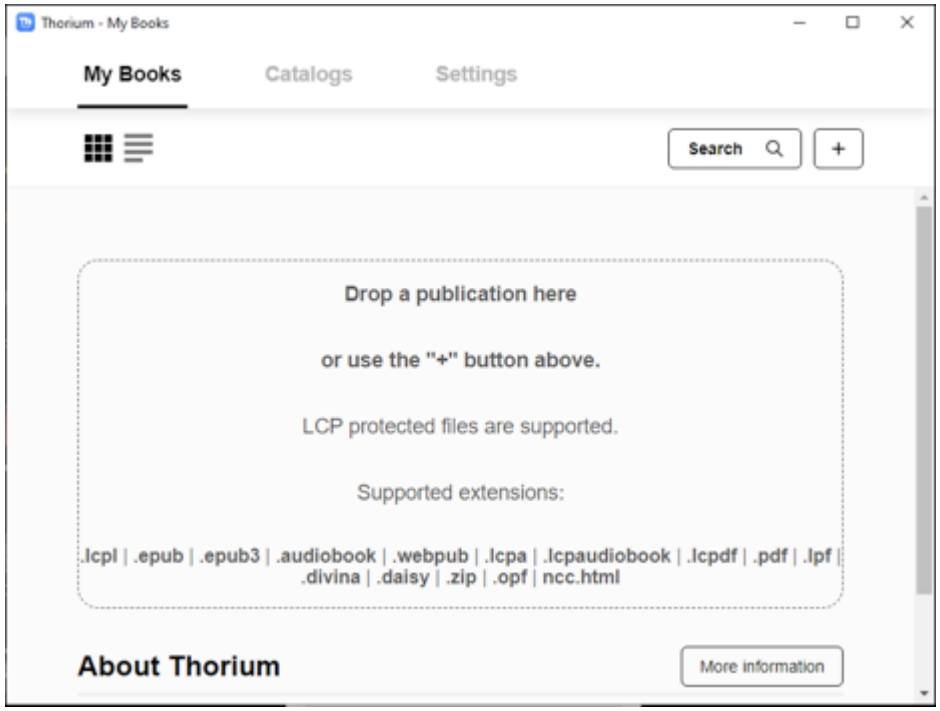
2. Download the appropriate version to the computer.
Save the file and run the installer:



Now we get the shortcut on the Desktop:

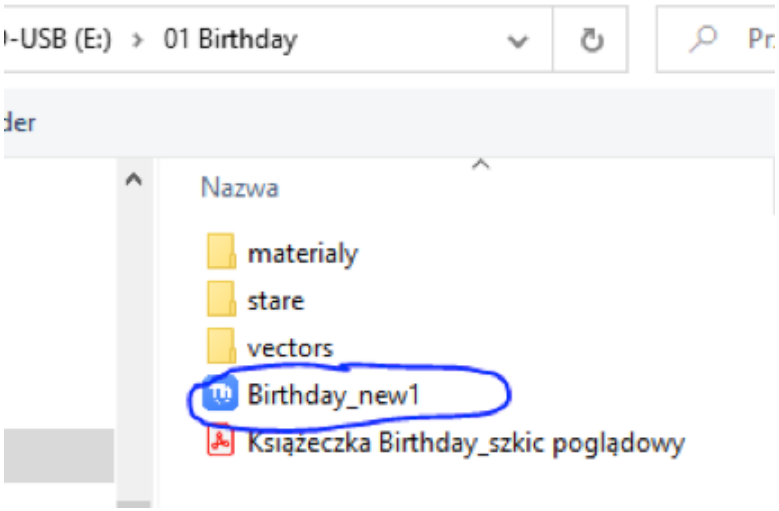


After launching the program, we need to add books to the virtual shelf.
We do it with the command: File/Add to Library:

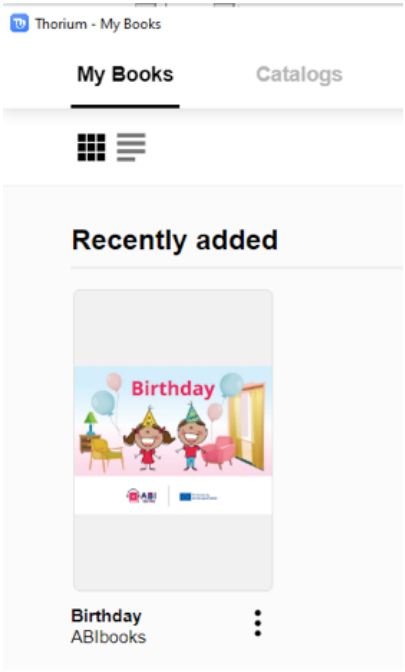


Or Add button:

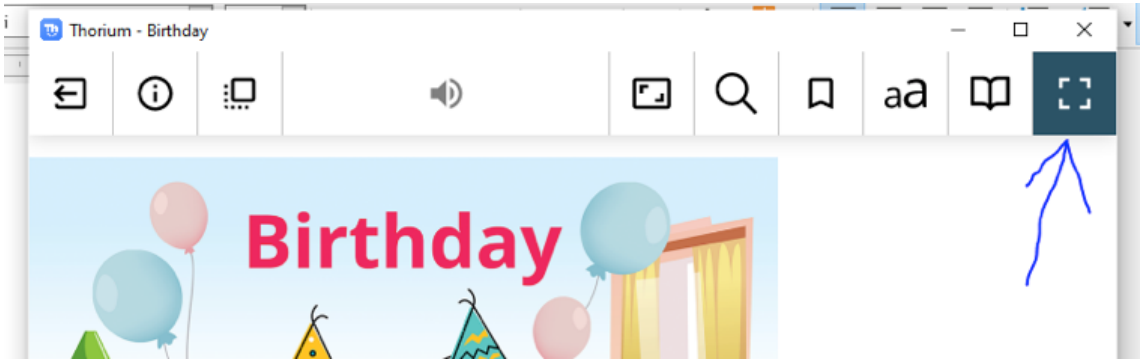
We can choose the previously downloaded book from Internet:



The book is added to the shelf - we can start reading:



After opening a book, it's a good idea to switch to full-screen mode:



To return to the bookshelf, we click on the „< Library" icon in the upper left corner of the screen:

Under ABIbooks project we develop our interactive books using pubCODER.
We recommend **XPUB digital book technology** which enables the creation of digital books, allowing the integration of audio, video and interactivity. They are readable on mobile devices using the PubReader reading app and can be exported to .epub files for distribution.

Books can be downloaded with a QR code directly to the reader for testing.

Xpub format reader for iOS phones

PubCoder reader **https://apps.apple.com/it/app/pubreader/id1250557252**

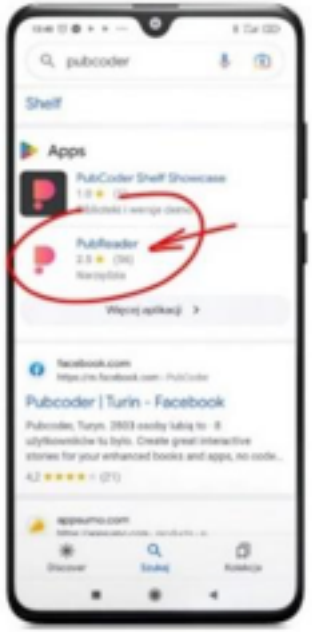
Xpub format reader for Android devices

PubCoder reader **https://play.google.com/store/apps/details?id=com.pubcoder.pubreader&hl=en**

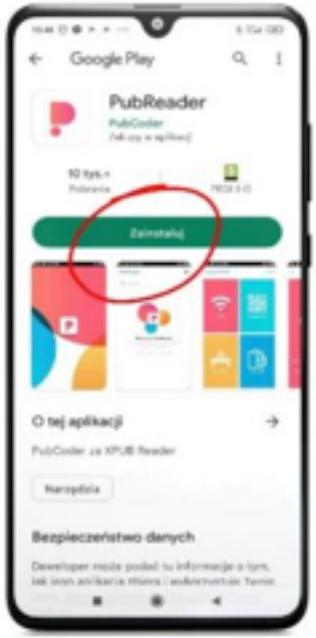
Installing the reader on Android (on iOS it is the same)

You need to download and install the appropriate digital book reader for your platform listed above.

1. Look for the „PubReader" app:



2. Proceed to install the application noting that it comes from the manufacturer „PubCoder" (it appears under the name of the application):



3. After launching the application by clicking on the plus icon in the upper right corner - add books/publications to our virtual shelf:

4. The application allows you to choose several ways to add books:

The most prominent option is to compile a QR code that link you directly to the book placed in the Internet.
You only need to download the book once to make it available offline as well.
Examples of QR codes:

5. Our bookshelf:

Book on the shelf - you can start reading!

PubCODER is the best option if you would like to create your interactive ebook. There are some alternative tools like Adobe Animate which allow to generate applications to run, or a presentation to be placed on the Internet, but it does not generate a standard ePub.

Some very simple elements can be developed also by:

- Canva (but here it is important to remember about the copyrights)
- Adobe InDesign
- Microsoft Publisher
- Wondershare PDFelement
- Renderforest
- Adobe Creative Cloud Express
- QuarkXPress.

Here there is a short list of the basic steps to create your own interactive book using pubCODER
(you will find more in DIY developed under the project - links).
You should start the process of creating an ebook from the idea (story you would like to develop) and the texts. Then it is useful to create the storyboard - how you would like to visualise your story. It is useful to create the list of media (illustrations, sounds etc) needed.
When you are ready with all elements you can start coding your ebook in HTML5, using... pubCODER.

At the begining download pubCODER which is available here: **https://pubcoder.com/download**

The basic steps to create your ebook:

1. Setting up your project on your desktop (open pubCODER, create the new project by defining the title, author, language, horizontal, format (1024x768), etc.)

2. Setting up your assets (left panel: ASSETS) by dragging and dropping your assets, the illustrations and other assets if needed (audio files, videos...)

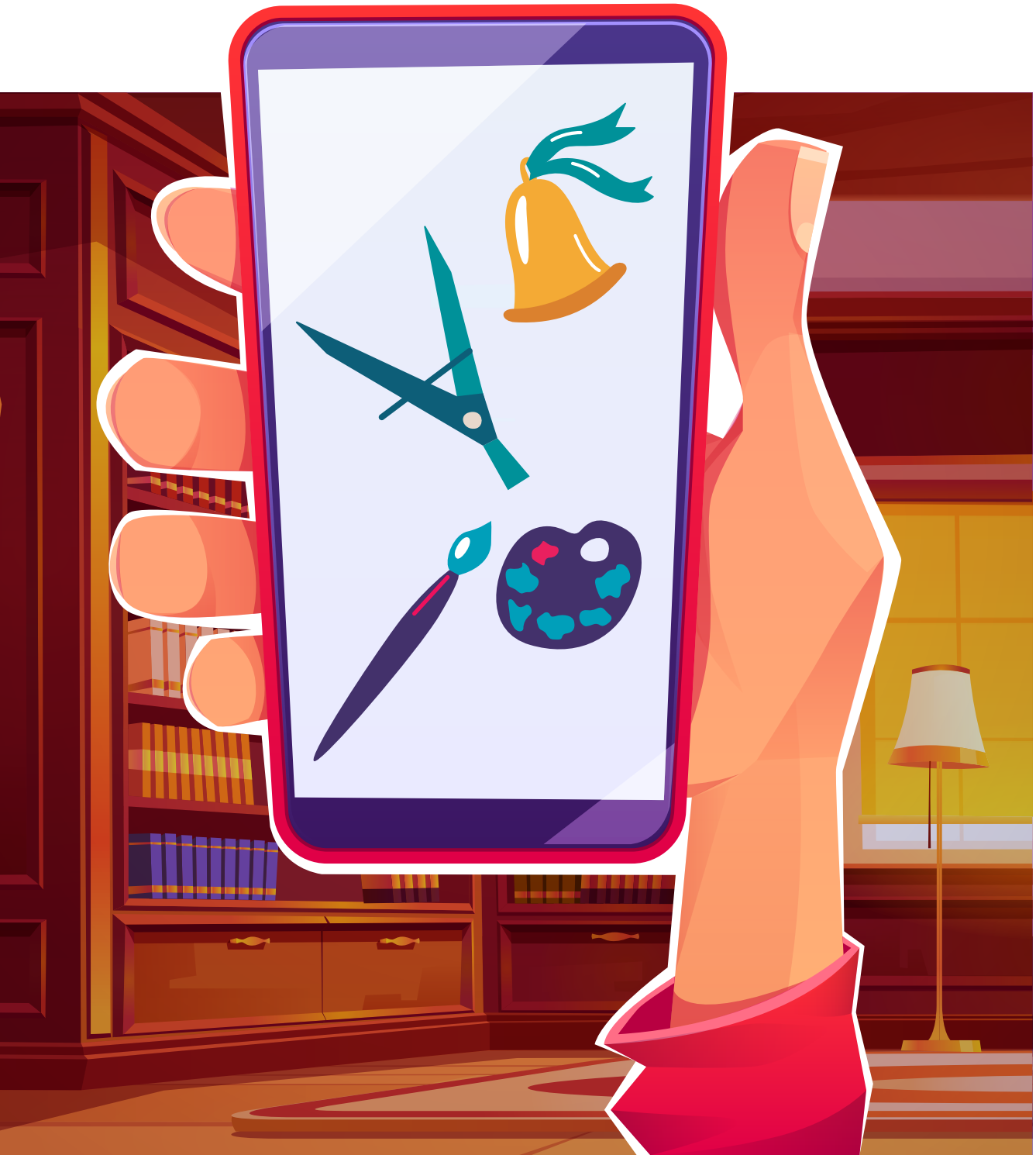
3. Define (on a right panel: PROJECT TAB) the cover image

4. Create your cover and collection pages - page by page (on a right panel: PAGE TAB)
- by adding the assets: images (on he left panel: ASSETS)
- by dragging and dropping the background and foreground images needed (on a left panel: LAYERS)
- by adjusting the layers if needed (background images at the bottom, foreground images at the top)
- by adding and designing the texts (on left panel: OBJECTS TAB) - drag and drop the first text box needed and insert the text inside (on the right panel: SELECTED OBJECT) you can make the text unselectable; set its font, text size etc.
- by adding your assets - buttons (on a left panel: OBJECTS TAB) - drag and drop the buttons needed
- by adding interactivity to your assets (on a right panel: INTERACTIVITY) - define its interactive features for each “button”

Repeat these steps to each page.

5. Export your ebook (at the top left) in epub format or in html5 (for online use)

Using and creating the interactive books could be a great fun and very useful tool in your everyday practice!



ABI books