

Contributions

Critical Digital Literacy in Education: A Handbook by and for Teachers

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Critical digital literacy is abbreviated as CDL throughout the book.

**Visual description of the handbook: On the cover of the handbook, on a blue background appears a logo of a smiling face on the left. On the right, "Critical Digital Literacy in Education: A Handbook by and for Teachers" is written in white. On the bottom of the cover, Teyit's and Teachers Network's (Öğretmen Ağı in Turkish) logos are provided alongside the logo of the project supporter Turkey Representative of the Heinrich Böll Stiftung Association. The texts and infographics included in the handbook are designed in various tones of blue and gray. Separator pages are designed in blue with white texts whereas the content pages are designed in gray with blue texts. Please find the visual descriptions of the infographics, tables and visuals just below where they appear.*

For reference please use: Critical Digital Literacy in Education: A Handbook by and for Teachers

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HOW CAN THIS JOURNEY BEGIN?

TEACHER TO TEACHER



WE ASKED THE CHANGE AGENTS*
OF THE TEACHERS NETWORK IN THE
EMPOWERING TEACHERS WITH
CRITICAL DIGITAL LITERACY PROJECT

Teachers who enable actualizing the change goal of the Teachers Network [Öğretmen Ağı in Turkish] are defined as "Change Agents.". As Change Agent teachers continue their professional and personal empowerment journeys within the Teacher Network, Change Agents design and develop the tools that Network provides for teacher empowerment. For more information: <https://www.ogretmenagi.org/en>

Why did teachers prepare such a handbook for teachers?

“

"To reinforce the guiding role of teachers in students' efforts to access **accurate information**."

Mustafa Dursun, Secondary School Turkish Teacher, Adana

"To create and raise deeper **awareness** of critical digital literacy (CDL) among students, colleagues, and parents in the information society."

Hasan Dirik, High School English Teacher, Çanakkale

"Our role as teachers as the ones who convey knowledge is evolving into a role of guiding students to access knowledge. So, to **create** a critical and digital **curiosity skill** for both ourselves and our stakeholders."

Meriç Dönmez, Psychological Counseling and Guidance, Denizli

“

"To integrate our practices and skills of reaching accurate information into our **daily lives**. If information is this easy to obtain, its verification should not be such a difficult and ignored effort."

Gizem Ok Uluçay, Classroom Teacher, Istanbul

”

Why should teachers read this handbook?

"Teachers should read this handbook first to broaden their perspective, and then to spread it among all their colleagues who are concerned about accessing factual information and to become good **practitioners**."

Gizem Ok Uluçay, Classroom Teacher, İstanbul

"Teachers should read this book to recognize **the importance of their efforts** in critically handling the information we encounter in our daily lives and classrooms."

Meriç Dönmez, Psychological Counseling and Guidance, Denizli

"The utmost feature of teachers is that they can keep updating themselves countless times over years. This handbook acts as an effective **guide** in the acquisition of CDL skills for both teachers and students."

Nebi Burak Ay, Special Education Teacher, Mersin

"This handbook has been co-created with teachers, so it will allow teachers who are curious about the **theory as well as practical examples** to easily bring CDL into educational settings."

Mustafa Dursun, Secondary School Turkish Teacher, Adana

"This is a handbook created with teachers, not for teachers, an effort **that will provide teachers with the opportunity to benefit from their colleagues**."

Hasan Dirik, High School English Teacher, Çanakkale

"If you're wondering, 'what will CDL skills add to me and **how can I bring these skills to my classroom?**', you should check out this book to guide you."

Semra İnan, Classroom Teacher, Denizli

How will improving your CDL skills help you?

“

"My right, my left, my front, and my back are all digital! Then, in this **digital world**, knowing the ways to reach accurate information will not only feed my healthy skepticism, my curiosity, my researcher and thinker side but also protect me from dangers."

Semra İnan, Classroom Teacher, Denizli

”

"Especially the negative effects of **fake news** spreading during the pandemic on the individual and society reveal the importance of CDL skills."

Mustafa Dursun, Secondary School Turkish Teacher, Adana

“

"CDL skills are complementary to the development of research skills. With the awareness it brings, a **critical approach** is developed towards interpreting, inferring and analyzing the source."

Gizem Ok Uluçay, Classroom Teacher, Istanbul

"It helps us to gain a critical view towards digital environments where information is rapidly multiplying and spreading, to increase our skills to spot the flow of false information, **to turn this into an attitude**, and to realize what we can do for our own life and environment."

Meriç Dönmez, Psychological Counseling and Guidance, Denizli

"Developing CDL skills allows us to create an 'accurate information filter' in our minds. Unconsciously, our **muscle of suspicion** steps in all kinds of information that we come across, and we begin to investigate its accuracy."

Nebi Burak Ay, Special Education Teacher, Mersin

“

How can this journey begin?

"This journey first begins **within ourselves**."

Meriç Dönmez, Psychological Counseling and Guidance, Denizli

”

"This journey begins with **patiently** asking,
"What else could it be?"

Gizem Ok Uluçay, Classroom Teacher, Istanbul

“

"This journey begins with just thinking about how
much **misinformation** we come across in a single day.
Indeed, how many?"

Nebi Burak Ay, Special Education Teacher, Mersin

”

Reminders and bits of advice from one teacher to another before you start

- Fact-checking is hard work, be patient.
- Make educational stakeholders feel the importance of critical thinking.
- Encourage your students, parents, and colleagues to step outside of their comfort zone.
- Study the works of your colleagues in this area and adapt them to your context.
- Follow the studies of relevant institutions in this field to learn critical digital literacy (CDL) in depth.
- Remember that the teacher is not just the one who conveys the information, but also the one who questions it.
- Critical thinking is contagious, incorporate the CDL approach into your life, your family, and your environment.
- Repeat this once a day: "I do not regret what I have fact-checked. My mind is still with the ones I have not been able to fact-check yet."



HAVE A SAFE DRIVE WITH CRITICAL DIGITAL LITERACY

MERİÇ DÖNMEZ
GİZEM OK ULUÇAY
MUSTAFA DURSUN

PROJECT PARTICIPANTS,
TEACHERS NETWORK, CHANGE AGENTS

Syrians can enter the university of their choice without any conditions **FALSE**

There are nanorobots in masks **FALSE**

The National Anthem consists of 571 syllables and 1453 letters **FALSE**

Cities will be disinfected with helicopters against coronavirus **FALSE**

Ziya Selçuk, Minister of National Education, announced that distance education will be permanent **FALSE**

There is a link between 5G and the emergence of the new coronavirus **FALSE**

Every day we come across news like these.² We witness the rapid spread of these news, especially on social media and WhatsApp groups. So what do we do when we encounter them?

Do we share the information we encounter and pass it on to others as soon as we see it, especially in times like the Covid-19 pandemic? How does the news affect our decision-making processes? What effects does it have on us and those around us in our daily routines?

But when we look at the sources of these contents by activating our skepticism with a critical approach, we come across a very different situation: These claims, which have long been accepted as true because we have heard them all the time, were false.

We all know about the highways. They offer a quick and a comfortable ride. Many of us find them safe. It is a convenience for us in today's

mad rush. The speed we make on the highway turns our view into a tunnel vision, and we do not notice many things around us from this angle, or we may have to go many kilometers and spend more time when we miss the exit. The next exit may take us away from our destination. Today, information and news can be produced and spread quickly as if they were travelling on these highways. In this rapid flow of information, we can get caught up in that speed and miss the exits necessary to reach the accurate information. It is our driving skills that ensure safety on the highway, but in tunnel vision, we are not very safe. That's why if we take our foot off the gas and adjust our speed for what may happen, we will be safe.

Perhaps we should slow down to reach the facts in the highway filled with fast-reproducing and spreading news. What we need here is expanding our perspective by leaving the tunnel vision, and taking care of the exits leading to the truth. We certainly have experienced the negative and saddening consequences of false information and news many times. Therefore, approaching the information and news we encounter critically and slowing down a bit by activating our skepticism will allow us to broaden our perspective and take the right exit that will lead us to our destination.

And this handbook has been prepared as a guide to critical digital literacy (CDL) skills for educational stakeholders looking for ways out of tunnel vision in learning settings. Today, getting to know the digital world and developing "critical digital literacy skills" are very valuable for our children and all of us...

Drive safe everyone...

² These claims widely circulated on social media among Turkish-speaking communities. Teyit published fact-checks debunking these claims, linked here [in Turkish].



WITH TEACHERS EVERY STEP OF THE WAY: THE STORY OF THE PROJECT

IRMAK AKINCI CANBAZ
TEACHERS NETWORK, NETWORK
ENGAGEMENT SPECIALIST

The collaboration between Teyit and Teachers Network started in April 2020, in the first days of the pandemic, with a discussion on disinformation in our brand new digitalization practices. The Zoom application, which has now been a part of our lives, was a brand new digital tool for almost everyone at that time and was used for the first time in distance education. This marked a new experience. With little questionable information circulating, Zoom had created a big question mark among teachers who had already been trying to adapt to the new order, digitalizing the curriculum for in-person teaching, and reaching their students in some way. Suspicious claims about the application fueled concerns that Zoom was charging users' credit cards against their will or that there were various security vulnerabilities. These claims even led many teachers to delete Zoom and cancel their online classes.

As Teachers Network, we ended up at the door of Teyit, Turkey's independent fact-checking platform. Together with Teyit, we have done a rapid research across Turkey and we consulted teachers' experiences and needs regarding the digital tools. Based on these experiences and needs, an article, fact-checking the claims about Zoom, was written by Emre İlkan Saklıca from Teyit.³

As months went by, we realized that we needed this collaboration more and more. The world of education was exposed to more suspicious information than ever before during the pandemic filled with uncertainties. With the initiative coming from Change Agents in Teachers Network, we talked about the needs and experiences in information and media literacy during an experience sharing meeting where Kansu Ekin Tanca and Gülin Çavuş

There was so much confusion that I chose to walk away as I did not know how to deal with [false information]. With the project, I started to discuss and have others do discussions.

-Turkish Teacher, Hatan

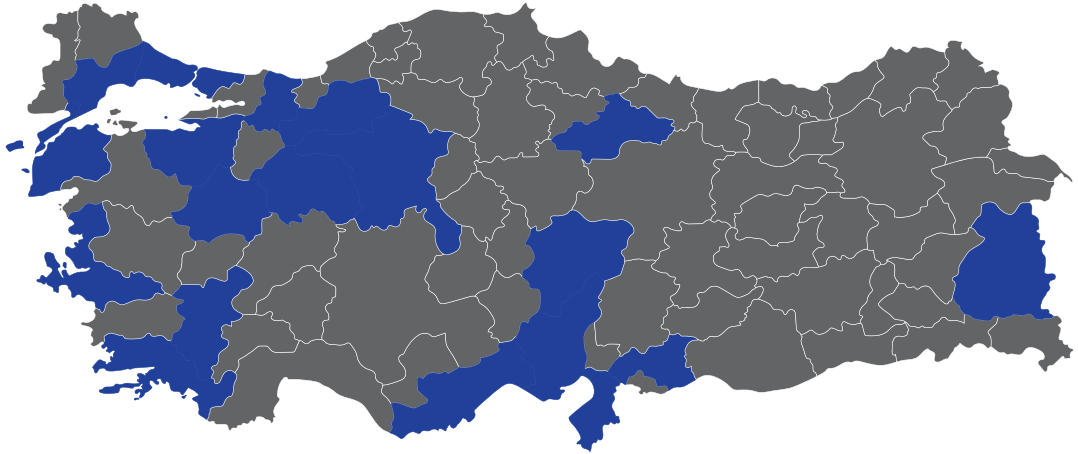
from Teyit were invited. The meeting made it clear that with the so-called 'official-looking' documents, the audio recordings allegedly containing 'top secret' backstage information from the Ministry and the health disinformation circulating on WhatsApp about health, it was an undeniable fact in the world of education that we, as teachers, students, and parents, were in an information disorder. A common need occurred that all subjects of education had to become stronger and had to be equipped with skills to protect them from this chaos.

We thought that we could design a long-term project that was shaped around the experiences and needs of teachers, where they could acquire critical digital literacy skills, share their experiences with their colleagues, and create solutions for students, colleagues, and parents.

Thus, as Teyit and Teachers Network, we rolled up our sleeves with the support of the Turkey Representative of the Heinrich Böll Stiftung Association, and the project called "Empowering Teachers with Critical Digital Literacy Skills" was born. We set out to create a need-oriented, non-hierarchical, co-learning community that opens up space for teachers' production and sharing, and the first meeting of our project started in February with **39 Change Agents from 19 cities** teaching in various branches. The project had two main focuses; creating

³ Saklıca, E.İ. (2020). "Is Zoom, the program at the center of the discussion, safe?" Teyit. [in Turkish]

We produced with 39 Change Agents from 19 cities during this project.



preschool, primary school, secondary school, high school
special education, social sciences, mathematics, psychological counseling and guidance, Turkish, English, science, and classroom teachers.

Visual Description: There is a map of the cities of Türkiye which shows the locations of the Change Agent Teachers who are the project participants. There are 19 cities that show locations of the Change Agents by blue color. On the top of the map "We produced with 39 Change Agents from 19 cities during this project." is written. On the downside of the map, branches of the Change Agents are written which are preschool, primary school, middle school, high school, special education, social sciences, mathematics, psychological counseling and guidance, Turkish, English, science, and classroom teachers.

space for teachers to be empowered with critical digital literacy skills in their daily and professional lives and spreading this to other stakeholders in their learning environments. Therefore, the project process proceeded on two separate paths. At one level, the workshops led by Teyit provided conceptual empowerment and aimed at developing fact-checking skills. At the other level and in parallel with this, experience sharing meetings continued, where insights and needs in schools were shared and creative solutions were produced.

In experience sharing meetings the Change Agents, the teachers involved in the project, decided that the creative solutions to be produced on the subject should have three main target audiences: teachers, students, and parents. The teachers, who were divided into groups according to these target groups, started working in small groups by prioritizing

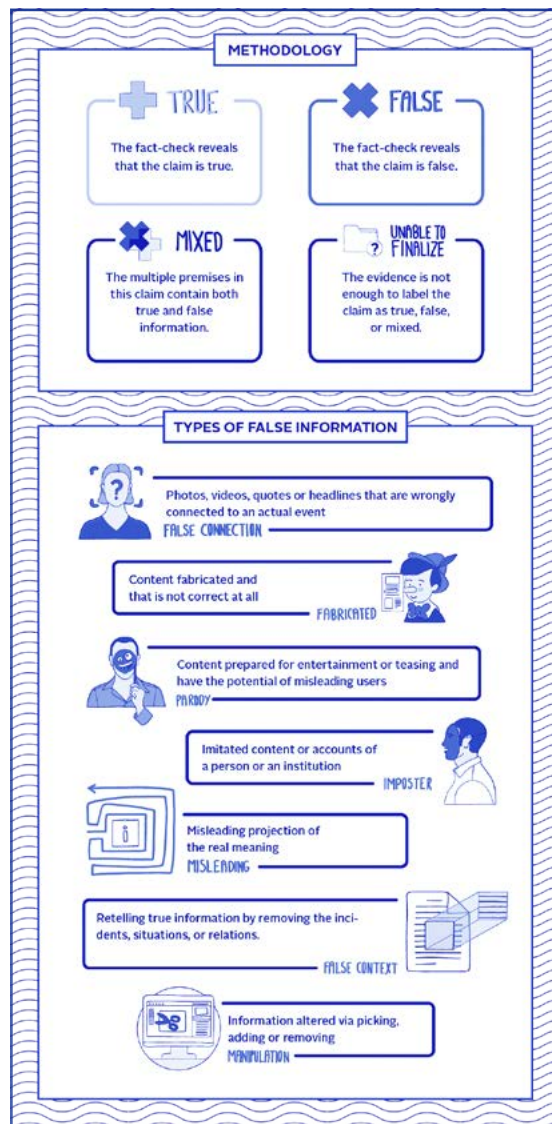
the prominent ideas after brainstorming and splitting up for the solutions they wanted to focus on.

We can't help but mention the application called Slack, which we used throughout the project, from February to June to feel the taste of producing and sharing together, even if it was digital, while we were pondering on the sources, causes, and consequences of misinformation, and its reflections in the classroom and society. From the very beginning of the project, we were able to visibly follow the path from our confusions to our learning on our Slack channel, which was overflowing with experiences, insights, needs, and resource recommendations from the personal and professional lives of teachers. Just as you will see in the creative solutions in this handbook, we organized surveys with teachers from all over Turkey in our learning process to learn by

using digital tools and have fun with what we learned. We noticed that meeting just for once was not enough and immediately organized an extra experience sharing meeting. We saw that we were highly interested in conspiracy theories, so we thought that we should go a little deeper on that subject. As this project was designed entirely on the needs of teachers, the steps throughout the process were determined together with the teachers.

Change Agents, who have met countless times between May and June, worked hard to develop solutions, prototyped the solutions with their students, parents, or colleagues in offline or online settings, and improved them with feedback. Teachers also formed a separate group for the Teacher's Handbook and put great effort into the preparation of this handbook. We are very excited to provide such a source on critical digital literacy with the expertise of our stakeholder Teyit and the initiative, insight, and efforts of our Change Agents in Teachers Network, which works with the motto "for teachers, with teachers."

We hope that we have created a source that teachers and anyone interested in education can benefit from. **Happy reading!**





CRITICAL DIGITAL LITERACY AS A CIVIC ISSUE

PROF. DR. KENAN AYIR

DIRECTOR OF ISTANBUL BILGI UNIVERSITY CENTER
FOR SOCIOLOGY AND EDUCATION STUDIES,
TEACHER'S NETWORK CONTENT CONSULTANT

It has always been important for us to critically filter the news we hear, read, and see around us, but I think it has never been as important as today in history. It has two intertwining reasons: The first is that our daily lives are increasingly being shaped by digital technologies. The second one is about the contemporary social, economic, and political conditions surrounding these digital technologies.

Let me try to justify and elaborate my thesis as follows: Between 2017-2019, we developed sample lesson modules on "Holocaust, Anne Frank and Democratic Values" with a group of teachers.⁴ While deciding on the themes of the lessons, "propaganda" appeared as an indispensable topic. Because propaganda was one of the most important tools that made it possible for the Nazi regime to secure its position. Radio, cinema, brochures, and books came to mind as the propaganda tools specific to that period. The regime was able to manipulate the masses through these tools. Compared to today, the mass media was limited and information was manipulated unilaterally, relatively under state control.

Today, we are under a multifaceted information production that cannot be compared to the past. Now, it is possible for each individual to produce content with social media tools and to disseminate what others produce, given that they have access to the internet. Unlike traditional media, this information cannot undergo editorial control. In addition to individuals; states, companies, civil/official institutions, and social groups also constantly produce content to influence and control our views and decisions. It cannot be said that all digital content is problematic. However, it is necessary to constantly question the socio-political context in which these contents are produced. Because sometimes we perceive technology as a mere

technical product and mistakenly believe that it is neutral and independent of people. However, technology is a socio-cultural product. It is true that engineers, coders, and designers technically develop a tool. But these digital tools work with a certain algorithm.⁵ That is, someone gives instructions on how the content will work (such as recommendation systems). The question here is by whom, based on what kind of data, and for what purposes these instructions are determined. After all, it is social actors who shape digital content; algorithms and contents are not independent of the existing social structure and power relations.

At this point, let me elaborate a little more on the second reason I mentioned at the beginning of the article, namely "the social, economic, and political conditions that surround digital technologies." Today, we live in a world that is changing faster than ever with the contribution of digitalization. Information and technology are changing so rapidly that people constantly need to receive training and renew their skills. On the other hand, with the digitalization of production, capital can move much more easily compared to the past. For example, it can move production from a place where labor is expensive to a place where the labor force is much cheaper. Labor, on the other hand, cannot move as quickly and comfortably as capital. In this context, global inequality is getting deeper and deeper. Millions of people are trying to immigrate to different countries for various reasons. Both physical and virtual contact among people and groups are increasing more than ever before.

So, how do people respond to this rapid change, growing contact, and inequality? When we look at the reactions of groups of people in different countries, we see that there are various similarities. For example, many people worry about not being

⁴ Yensarfati, B. B. ve Çayır, K. (2019), "Sample Lesson Modules on Holocaust, Anne Frank and Democratic Values for Teachers". Istanbul: Civil and Ecological Rights Associations 'SEHAK'. [in Turkish]

⁵ Karakoç, E. and others (2021), "Society and Communication on the Shadow of Algorithms", O. Kuş 'Compiler'. Ankara: Alternative Informatics Association.

able to sustain their profession, culture, and home under these conditions. They experience a feeling of vulnerability and insecurity caused by not being able to control those around them. Instead of questioning systemic inequalities, people tend to gravitate toward simple explanations, driven by cognitive miserliness. Conspiracy theories that spread globally with the help of digital technologies are the best example of this. Conspiracy theories clear away the chaos and provide people with simple and easily digestible explanations. In such a rapidly changing world, a phenomenon called post-truth is also growing. Visible and scientific findings do not seem to work, as we see in the case of anti-vaccine or flat-earth groups. Anti-intellectualism or hatred towards literate people is spreading all over the world. In many environments, immigrants and foreigners are indicated as the source of the problems. Social media facilitates the spread of discriminatory discourse, as the concepts of cyber racism and antisemitism online demonstrate. In this environment, societies are breaking up into groups that live in closed communities (or in echo chambers).⁶

All these developments undermine the democratic institutions and achievements after World War II. We see that authoritarian-populist leaders, who are very similar to each other, have come to power in very different countries today. One of the factors that made this possible, as the 2016 United States Presidential Election demonstrated, is the manipulation of the masses with digital technologies. These technologies have the potential to make far more detailed and dangerous results than the propaganda of the 1940s. It is dangerous because today we see that the understanding of the concept of "citizenship" is under attack from various aspects. The trends that control digital technologies and algorithms transform citizens into the apparatus of closed

communities with the politics of fear. On the other hand, digital content produced by companies operating with an uncontrolled profit logic downgrades citizens to mere consumers. This broad sociological context I have drawn up is valid for Turkey as well. One or two more points can be added in the context of Turkey. The first thing that stands out is that Turkish society has historically fragile ethnic, religious, and linguistic fault lines. That's why we experience each problem within a multidimensional level, strengthened with the reactions of the masses on social media. For example, we can see the forest fires revolve into an ethnic problem, a problem between religious and secular people, together with posts on social media. As TurkuazLab's studies show, posts on social media can deepen social polarization.⁷ As a result of polarization, people are exposed to dis/mis/mal-information much more easily, or they produce and spread them. When we add Turkey's historical feeling of inferiority to this, the fact that the masses are much more open to all kinds of conspiracy theories (such as foreign powers, the big picture, and the global game) comes to light.

So let me repeat more clearly what I said at the beginning: Critical thinking and critical digital literacy, the focus of this book, have never been more important in human history, and in education in particular. Of course, education alone cannot be the solution to problems. But in this period, it can play an important role in providing the skills we need, and it can remind us of the concept of responsible democratic citizenship. Critical digital literacy is perhaps the most important civic skill of our time. Regardless of the branch, it is a subject that every teacher should focus on in lessons.

I hope that these contents, developed by teachers in cooperation with Teyit and Teachers Network, will contribute to this skill...

⁶ Guess, A. (2018). "Avoiding Echo Chamber About Echo Chamber" (B. Bulat, Tr'. Teyit.

⁷ TurkuazLab, *Dimensions of Polarization in Turkey* (2020).

INTEGRATED APPROACH IN EDUCATION FOR CRITICAL DIGITAL LITERACY



DR. ELİF POSOS DEVRANİ

TURKISH – GERMAN UNIVERSITY, FACULTY OF
CULTURE AND SOCIAL SCIENCES, CULTURE AND
COMMUNICATION SCIENCES

The era in which we live in is a period that focuses on the digital, and we call people advantageous or disadvantageous based on their ownership and competencies regarding the digital world. While digital inequality used to be narrowly defined in terms of access to digital technologies and ownership of digital tools, we now know that other factors also feed this inequality. These are digital competencies, the ability to define opportunities and risks accurately and navigating the digital space in a responsible manner.

The 21st century's competencies have recently emerged as the most studied subject. This set of competencies not only prepares young people for the future but also enables institutions to draw a clear roadmap about the areas they need to improve and transform well for the future. The Organization for Economic Cooperation and Development (OECD) evaluates the 21st century competencies under three titles: cognitive domain, communicative domain, and ethical/social impact. We see digitalization in every title and as a phenomenon that transforms each competency set. Two topics that are affected by digitalization draw attention: Digital literacy and new media literacy. An integrated and inclusive strategy is certainly needed in the roadmap to be determined in order to advance these two literacy levels. What is meant by inclusiveness is to build a system that includes students, teachers, and families in the equation and encourages their interaction and nurturing from each other.

When we evaluate media literacy education in Turkey considering its position in the curriculum, we see that it is an education set that is limited to a certain period and offered to

students as an elective course instead of being compulsory. However, when the world's media literacy index is examined, it is striking that a similar approach has been taken in all of the top countries: Development of a system that is integrated into the whole of the educational life, that is included in the outputs of each lesson, and that is open to continuous renewal, instead of being the focus of a particular lesson. In fact, due to the integrated approach that includes parents and teachers, a lifelong awareness beyond the school years is aimed. When we consider the media ecosystem in the world and the speed of new media, what we should expect from media literacy education becomes clearer and we can list the goals we want to achieve at the end of the roadmap:

- Being able to use the digital tools accurately and responsibly
- Being able to think critically to determine whether a data exposed in the media has true or false information
- Being a selective content consumer
- Being a content producer who is aware of his/her responsibilities towards himself/herself and the society, and who prioritizes the accuracy and clarity of the content he/she produces

Achieving these goals can only be possible with the efforts and cooperation of teacher and parent initiatives in the current education system in Turkey. This is why the "Empowering teachers with critical digital literacy" project of Teachers Network and Teyit is a very valuable step. Especially in the transition period to compulsory distance education, which we experienced during the Covid-19 pandemic, children and families were trapped in digitally limited worlds while struggling to access education and social life and they frequently

needed the guidance of teachers. After the pandemic, it is necessary to take steps without wasting time to transform the digital habits of the society in accessing information and content, in creative production, in games, in social relations, into processes that produce benefits within the framework of healthy use. The handbook you are reading now shows that these steps start from the right point, from the teachers who can reach out to families and children.

"We should increase the sharing with Teacher to Teacher workshop sessions. We should talk to each other about examples of practice in classroom studies, aspects that go well and need improvement, and exchange ideas."

- Class Teacher, Istanbul

I believe that this project will fill the gaps in very important fields. For example;

- It is a very valuable awareness and effort to try to systematically complete the curriculum deficiencies in the field of critical thinking with the initiative and participation of teachers, under the supervision of Prof. Dr. Kenan Çayır and with Teachers Network & Teyit
- Open access to activities shaped by teachers' own experiences, where practitioners are also producers, both in terms of content and method
- An integrated approach involving teachers, parents, and students in activity suggestions
- Background and basics on fact-checking and critical digital literacy conveyed by Teyit

Another reason why I put this work in a different

place is the two institutions that initiated the project. The synergy created by Teachers Network, which enables teachers to share and cooperate and allows them to get stronger by connecting with their colleagues and people and institutions from different disciplines, is combined with Teyit's knowledge, which aims to ensure that citizens gain the habit of critical thinking and works to increase media literacy. There is only one thing left to achieve the level of critical digital literacy needed: Adults willing to implement these valuable educational materials and willing to improve them.

I hope that this book, which is the result of a great effort and exemplary idealism, will receive the care and attention deserved by those who contributed and most of all, by the children, who are our future, and will inspire teachers and parents.



Visual Description: There is one of the stickers that is designed by İdil Keysan for Teyit. This sticker is designed as a green search engine page. At the address bar of the browser "teyit.org" is written. In the middle of the page question "DID YOU CHECK?" is written and below the question, there are two options such as "YES" in a green box and "NO" in a red one. Also, there is a cursor located between these boxes.



HOW DO CRITICAL DIGITAL LITERACY AND FACT-CHECKING INTERSECT?

ESRA ÖZGÜR

HEAD OF EDUCATIONAL CONTENT, TEYIT

KANSU EKIN TANCA

HEAD OF EDUCATION, TEYIT

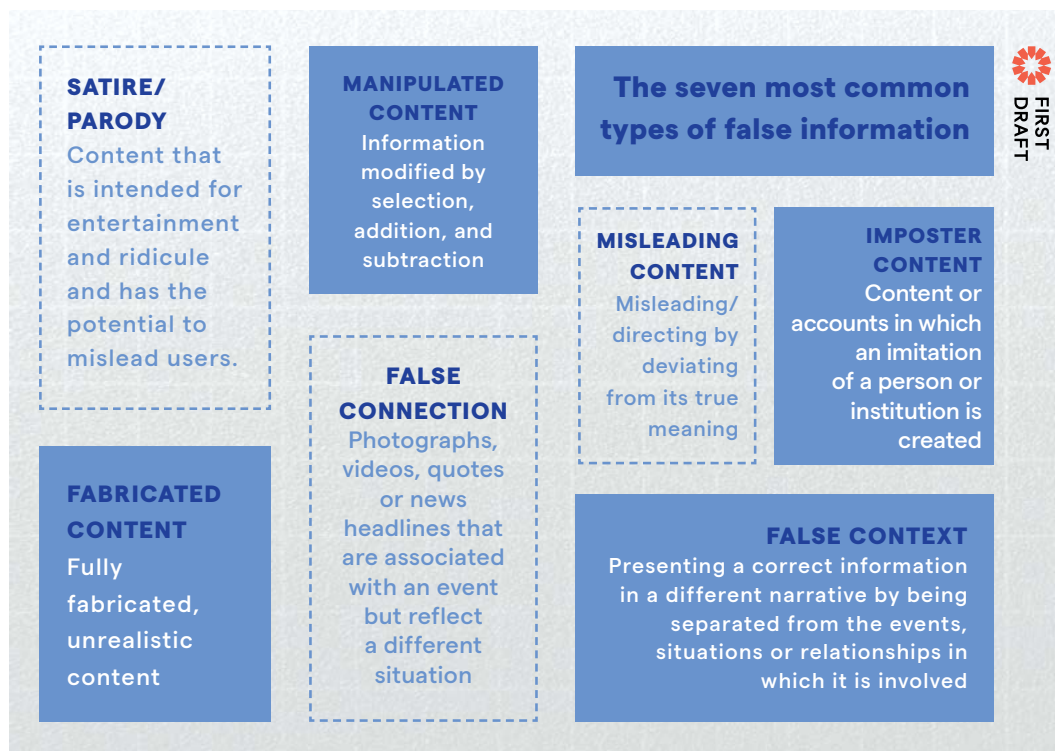
The concept of "Fake news" is no longer sufficient to explain the complexity of information disorder and pollution online. This has two reasons: First, most of the misleading or suspicious content does not pretend to be news, they are generated from social media accounts, blogs, and closed messaging apps. Secondly, most misinformation is not completely 'fake'. In other words, some of the misleading information tries to mislead by using the accurate information in a false context. This makes the problem of misinformation too complex to fit into the concept of "fake news".⁸

Another inadequate term in this field is "lies". Not all false information is deliberate. For this reason, naming the information "a lie" and the person spreading the information "a

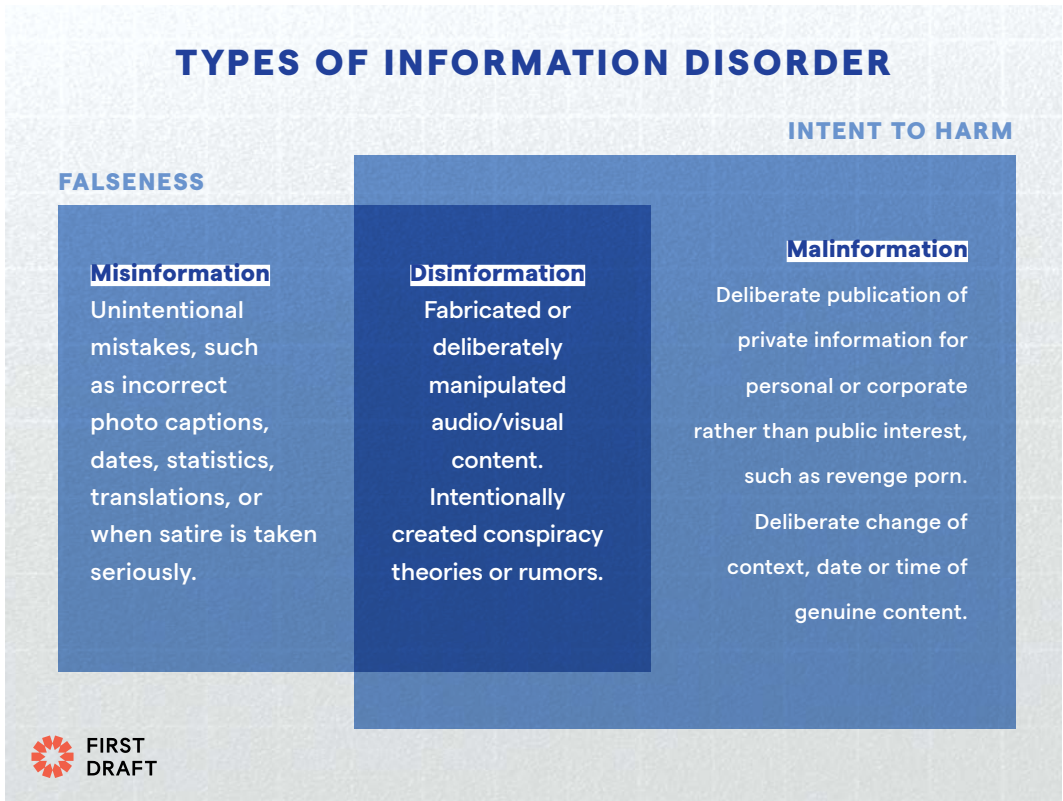
liar" distract us from correctly identifying the misinformation problem and from developing a solution.

There are many kinds of false information. The table below explains the seven types of false information we use in Teyit.

- False content shared without being noticed or unintentionally is called misinformation, that is, **false information**.
- False information that is deliberately produced and spread to mislead is defined as **disinformation**.
- The use of accurate information for the purpose to create harm is known as **malinformation**.



⁸Silverman, C. (2020). [Verification Handbook for Disinformation and Media Manipulation](#). European Journalism Center.



Introduction to false information and information disorder

Contrary to popular belief, everyone, not just people of a certain age group or a certain level of education, can believe in misinformation. Jokes, parodies, and satirical content can be perceived as genuine and cause misinformation. Research shows that correcting misinformation appropriately and effectively works.

Actors spreading misinformation can have very different motivations.⁹

The conspiracy theorists: Conspiracy theories are based on the premise that nothing can be a coincidence, everything is connected and

nothing is as it seems. Conspiracy theorists spread false narratives with sensational language and often quote other conspiracy theories.¹⁰

Imposter accounts: Accounts that impersonate a reputable news site, a well-known political figure, or a celebrity with a large number of followers spread misinformation, creating the appearance of being shared by that person or institution.

Insider leakers: Voice recordings and messages sent by people who claim to be relatives of patients, come from the hospital, or claim to be a doctor and claim to be disclosing information that is not shared with the public, fall into this category, especially during the pandemic.

⁹Maldita Educa (2021). "The 10 Characters of Disinformation." Maldita.es.

¹⁰Spring, M. (2020). "Coronavirus: The seven types of people who start and spread viral misinformation". BBC
Karaosmanoglu, K. (2019). "Understanding, diagnosing and dealing with conspiracy theories". Fikir Turu. [in Turkish]

"As an individual who was raised in fear of the word 'criticism', I understand the value of critical thinking now. Now I'm trying to make sure everyone knows its value."
-Social Sciences Teacher, Izmir

Bots: Bots can be trained to act like the accounts people use, and on social media, bots can systematically share false information to mislead the public.¹¹ Topics that are among the most talked about (TT, trending topic) all of a sudden, and tags that are constantly being used may be the ones highlighted by bots.

Jokers: Joke or parody content produced to make you laugh and entertain can be perceived and shared as real by others. If it's parody content that is shared believing it's real, it becomes one of the types of false information.

Celebrities: False information shared by multi-follower accounts, intentionally or unintentionally, can reach a lot of people.

Those who produce hate speech for polarization: Actors who systematically spread misinformation about certain groups by targeting them harm individuals and societies and deepen social polarization.

Relatives: Relatives and loved ones, who are worried about their relatives and want to warn them, can forward messages containing false or misleading information to each other. While it has the purpose of helping, this effort unfortunately spreads misinformation.

Politicians: Politicians can also be among the actors who share misinformation in order to

strengthen ideas for a particular political view or to damage the discourse of the opposition party.

Scammers: Fake messages, fake advertisements, or emails asking you to click are spreading misinformation to make money.

Tackling false information with the muscle of suspicion

Regardless of its type and the motivations behind it, the first step that can be taken individually to avoid false information is to exercise the muscle of suspicion. Critical thinking develops with practice, so being skeptical of the content we encounter, questioning the source of the information and the reliability of the source, and repeating these simple steps everyday prevent the spread of misinformation.



- Activate your muscle of suspicion!
 - Who made this content?
 - Who are they targeting with this?
- Who can benefit from this information, and for whom can it be harmful?
- Is there any missing information in this article?
 - Could an important part of it be removed?
 - Is the writer an expert in his/her field?

Visual Description: The pink colored sticker above features a thinking human face. His brain is visible from his head, and it reads "Work the muscle of suspicion" in green. There are question marks around your head.

¹¹ Starbird, K. (2019). "Disinformation's spread: bots, trolls and all of us"

Another value that we should be mentioning is media literacy. **Media literacy** means being able to analyze media messages, examining the effect of the message on ideas, emotions, and behaviors, and producing media responsible. Some countries, such as Finland, aim for social change by incorporating media literacy education into the curriculum.¹²

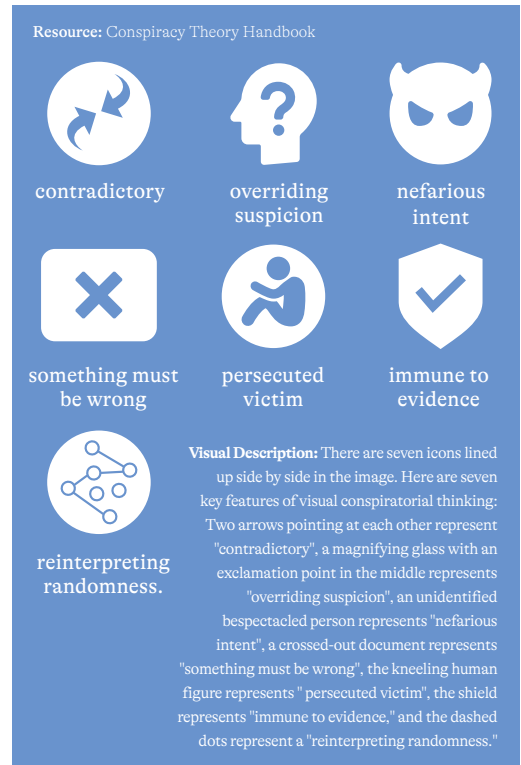
Freedom of speech is one of the main factors nurturing media literacy and critical thinking skills. Because the way to accurate information passes through reliable sources. It is possible to say that media literacy is generally higher in countries where the press is free.¹³

It is important to keep in mind that false information can deepen existing polarizations, harm individuals socially, economically, and even physically, especially those in the vulnerable group, and can cause great economic damage.

Conspiracy theories

The Turkish Language Association defines conspiracy theory as "any of the ideas that are based on the assumption that a harmful trap is being set against a person, organization or country." Research shows that people who feel vulnerable are more likely to support and spread conspiracy theories. In addition, conspiracy theories can attract attention because they base events that we cannot fully explain, questions that we cannot answer, or uncertainties on the assumption that they are the result of a "secret" and "evil" conspiracy. Conspiracy theories can be used as a tool to avoid supporting opinions that are disapproved. For example, when climate crisis deniers are presented with information about the climate crisis, their response often appears to be conspiracy-driven.¹⁴

Below you can see the seven key features of conspiratorial thinking in the Conspiracy Theory Handbook.



To what extent do we suspect?

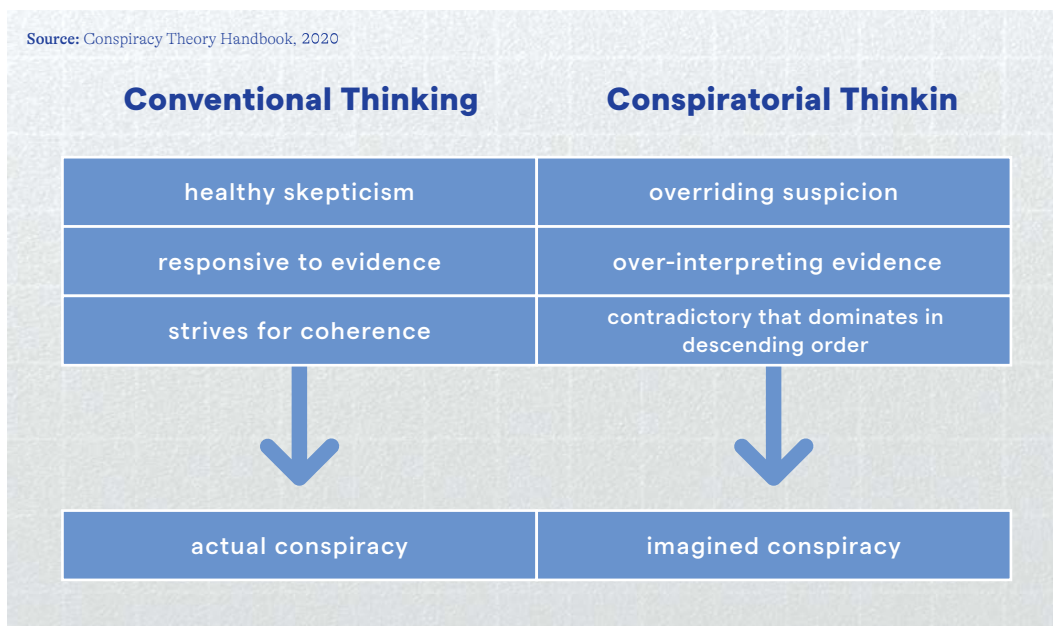
As can be understood from conspiracy theories and theorists, "suspicion" is not an important issue for fact-checkers only. Conspiracy theorists also embrace this practice. However, there are important differences between these two forms of suspicion. It is possible to understand the difference between "healthy skepticism" and "unhealthy skepticism", which goes back to conspiracy theories, by looking at the foundations of suspicion, the methods of nurturing suspicion, and seeking answers to questions. The table below shows

¹²Tanca, K.E. (2019). "Media literacy can prevent misinformation.", Teyit. [in Turkish]

¹³Özgür, B. (2021). "Credible sources at stake: Press freedom and fighting misinformation". Teyit. [in Turkish]

¹⁴Lewandowsky, S. ve Cook, J. (2020). "The Conspiracy Theory Handbook".

Source: Conspiracy Theory Handbook, 2020



the characteristics of conventional thinking methods that remain with healthy skepticism and conspiratorial thinking methods that have an unhealthy suspicion:¹⁵

A solution: Fact-checking

Fact-checking can be defined as proving or disproving the accuracy of suspicious information using open sources and a systematic methodology.¹⁶ The International Fact-Checking Network (IFCN), which is part of the Poynter Institute, a journalism school, and research organization, was established in 2015 to bring together institutions that carry out fact-checking activities around the world under a network. Fact-checking organizations that will be included in the network must adhere to principles such as impartiality, transparency of resources, transparency of financial and organizational structure, transparency of methodology, and following a clear and reliable correction policy.

Ways to identify suspicious information

There may be a few clues that will activate our **muscle of suspicion** in the news, posts, or photos we come across. If the content has;

- Discourses/images that directly appeal to emotions,
- Expressions that encourage clicking on the link such as "breaking news" in news or visuals,
- A photo shared allegedly from the scene in times of crisis, such as earthquakes and fires,
- A text including a call which invites people to share it
- A message that includes expressions such as "warning", "confidential" and associated with institutions such as the police and prosecutor's office
- An official letter containing typos,
- An official letter containing phrases such as "Top secret", "Private",
- Data shared without specifying the source

¹⁵ Ibid

¹⁶ For detailed information on "Fact-checking", you can check the [Fact-checking Wikipedia page](#).

It's a good idea to stop before you hit the share or like button.

Photos shared allegedly from the scene at times of crisis

- What did I feel when I saw the photo?
- Am I acting emotionally?
- Can the photo be from a different incident?

Clickbaits

- Do the news and the image contain expressions that encourage clicking on the link, such as "breaking news", and "miracle"?

WhatsApp messages and audio recordings

- Does the message begin with attention-grabbing phrases such as "WARNING"?
- Does the message contain typos?
- Is the message associated with authorized institutions such as the police or prosecutor's office?
- Are there calls inviting you to share the message?
- Is it an audio recording of an unknown origin?
- Are the discourses of vague people such as "someone's acquaintance" or "a friend" being conveyed?

Allegedly leaked confidential correspondence

- Does it contain typos?
- Could the names of the institution or authorized be wrong?
- Are there any phrases such as top secret etc.?
- Does the font and document structure arouse suspicion?

Distorted data

- Is the source of the data included in the claim specified?
- Is the institution cited as the source reliable?

"I have observed a very meaningful change in my students. Just as a flower grows with water, I supported my students' critical thinking skills; I enabled them to engage in a critical inquiry in their world of curiosity, which is very convenient and rich. Those were very small touches, but I believe these touches will have a big impact. The inspiration of the touches is hidden in 'us'."

-Social Sciences Teacher, Izmir

Identifying suspicious information is the first step in preventing the spread of false information. Many steps can be followed to ensure the accuracy of the suspicious information: Doing a reverse image search for claims with visuals, using advanced search techniques in search engines such as Google, and geolocating certain places by using online maps such as Google Maps.¹⁷

Research: Debunking misinformation works

We suspected the information, and after using different fact-checking methods, we reached reliable sources that show that the information is false. What about now? Research shows that debunking false information makes it less likely that information will be shared online. Here are the steps we can follow for debunking:¹⁸

- Start your debunking with the truth!
- Repeat false information only once.

Example of a Refutation

FACT

Lead with the fact if it's clear, pithy, and sticky—make it simple, concrete, and plausible. It must "fit" with the story.

MYTH

Warn beforehand that a myth is coming... mention it once only.

FALLACY

Explain how the myth misleads.

FACT

Finish by reinforcing the fact—multiple times if possible. Make sure it provides an alternative causal explanation.

Reference: The Debunking Handbook 2020
Available at <https://sks.to/db2020>

¹⁷ Joseph, R. (2021). "Four Quick Ways to Verify Images on a Smartphone". Global Investigative Journalism Network.

¹⁸ Lewandowsky, S. and others (2020). "The Debunking Handbook".

- Explain why it is misleading.
- Conclude your debunk by repeating the truth.

"I was in the corridor before, all the doors were closed, and all areas were [locked]. The phase of finding keys is much easier now, I spend less time."

-Social Sciences Teacher, Istanbul

Why do we believe in misinformation?

*"The psychology of misinformation, the mental shortcuts, confusions, and illusions that encourage us to believe things that aren't true, can tell us a lot about how we can avoid its harmful effects."*¹⁹

Confirmation bias is one of our cognitive biases. It is explained as the tendency to believe information that coincides with and confirms the beliefs and ideas we already hold and to reject information other than this.

Cognitive miserliness means choosing simple explanations with less mental effort, that is, less thinking and less pondering. Thus, when we see misinformation that we need to think about and evaluate, we may not spend enough time on it and think that it is correct.

The echo chamber is the online chamber where only opinions that are close to our own resonate and we only hear those echoes and therefore only be aware of them. To get out of the echo chamber, we can refer to multiple sources, follow the content of the views that you do not support, and make a habit of approaching all the

information that overlaps or contradicts your current views.

Filter balloons: The fact that the content that you may enjoy, like, and want to share is put in front of you with the help of algorithms that follow your movements on the Internet. Like the echo chamber, filter balloons prevent you from encountering new perspectives and ideas.

Algorithm: It is defined as a chain of operations organized so that a task can be carried out automatically. The algorithms keep track of the types of content a person interacts with, such as search history, pages visited, likes, and shares. Algorithms provide customized content to people with the help of this data and enable them to spend a long time on the platform. You can follow the QR code for videos you can watch about the reasons we believe in misinformation and the steps that will help us get out of our echo chambers.



¹⁹ Shane, T. (2020). "The Psychology of Misinformation". First Draft.

²⁰ T'Optrakçı, K.C. (2014). "The Danger that Obscures the Meaning of Science: Pseudoscience!". Evrim Ağacı. [in Turkish]

²¹ Çavuş, G. ve Tezcan, M. (2019). "Being baited". Teyit. [in Turkish]

Further on critical digital literacy

Pseudoscience: Claims or information that are put forward using scientific arguments, but do not contain elements such as materials, methods, or testability, which form the basis of scientific studies, or that are not supported by sufficient scientific research.²⁰

Phishing: It is a cyber fraud method in which malicious people try to seize sensitive information of users by pretending to be other institutions or individuals. At the beginning of the sensitive information that the malicious people try to get hold of, there is the information about the user's identity and financial accounts.²¹

Clickbait: There are link extensions made only to ensure visits to the desired website by using a misleading, false or sensational title. The aim of this type of content is not to provide the person with the information they want, but only to ensure that the link is visited, that is, to earn clicks.

Deepfake: Fictitious content created using artificial intelligence. It is produced by using available video and audio files to create new but fictional content. In such videos, people seem to say the things they didn't say and do the things they didn't do. It is also called a fictional video.²²

Cheap fake: Compared to deep fake content, cheap fakes are created with cheaper and more accessible tools. After the term deep fake, the terms shallow fake or dumb fake can also be used instead of cheap fake, which is formed by the combination of the words cheap and fake. Cheap fake content is produced in a variety of ways, often with the help of computer programs

like Photoshop, clipping or merging existing footage out of context, or changing the speed of video content.²³

Bot account: Social media accounts that are managed by computer programs. Bots are created to share or interact with posts as desired on a particular platform. These automated accounts can post and interact with other content without the need for humanpower. For example, bots on Twitter usually bring the topic to the trending topics by constantly tweeting via a certain hashtag.²⁴

²² Özgür, E. (2020). "Guide: Ways to detect deepfakes and cheapfakes". Teyit. [in Turkish]

²³ Ibid

²⁴ Renehart, A. (2017). "How to spot fake Twitter accounts"



**HELLO,
CREATIVE
SOLUTIONS!**

During the six-month project, teachers participating in the "Empowering teachers with critical digital literacy" project explored critical digital literacy skills on one hand, and on the other hand, they discussed how they could expand on the subject on which they have been empowered. They split up into small groups and worked to develop creative solutions for their target groups, students, teachers, and parents. Creative solution processes set out from problems that teachers identified in their educational environments and focused on solutions that directly aim at those needs. Project participant teachers implemented the solutions in face-to-face and in online settings, evaluated and improved them in small groups.

You can find creative solutions, the purpose of the solution, the target audience, the preparation and implementation times, necessary materials, instructions, and the tips for the solution under the titles of Teacher to Teacher, Teacher to Student, Teacher to Parent, and you can join in the solution improvement process by filling out the feedback form after implementing it.

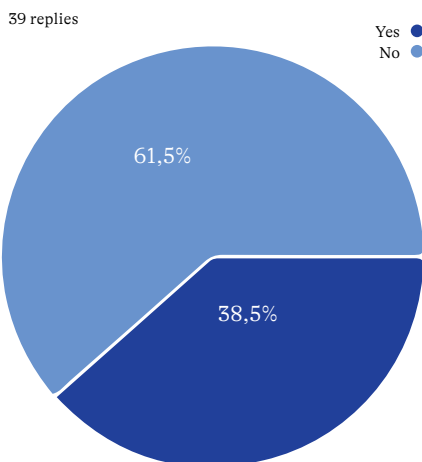
A table of concepts was prepared to guide the implementation of creative solutions. In this table, the teachers who developed the solutions divided the concepts related to critical digital literacy according to levels and target audiences. The concepts to be discussed while implementing the solutions can be selected according to the level and the target audience with the help of this table.



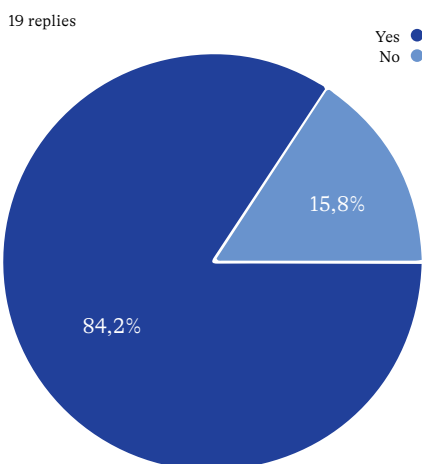
Teachers bring solutions to the schools

According to the conclusions drawn from the monitoring and evaluation activities carried out for the evaluation of the project, it can be said that the project encourages teachers to carry out activities on digital literacy with their students.

In the past, I carried out work(s) to strengthen my students on digital literacy.



As of the start of the project, I carried out work(s) to strengthen my students on digital literacy.





TEACHER TO TEACHER

TEACHERS' ROOM

"IN NEED OF

FACT-CHECKING"

WALL

Creators of the solution: *Hasan Dirik (English), Merve Bursa (Social Sciences), Gizem Ok Uluçay (Primary School), Okan Aksoy (Science), Mubammet Ali Mert (Psychological Counseling and Guidance), Soner Küçükgökmen (Preschool), Yasemin Gültekin (Psychological Counseling and Guidance)*

Purpose of the solution: To raise awareness among teachers about suspicious, false, and misleading information and to encourage them to think like fact-checkers.

The inquiry question:

Suspicious information concerns teachers as well as students. So, how do we ensure that teachers become aware of critical digital literacy, become acquainted with the practices of fact-checking, and how can we make this issue become a discussion among teachers?

Intended impact:

- Supporting teachers' critical approach and questioning against suspicious information they encounter
- Development of a critical attitude and habit by teachers against suspicious information they encounter
- Transforming teachers into role models for other actors of education in conveying the importance of accurate knowledge and fact-checking efforts within the school

With whom it can be implemented: Teachers from all fields and all levels

Preparation period: 2 days

Implementation period: Bi-weekly periods, which can be reimplemented as needed

Required materials: At least A2 size pinboard, mock-up cardboard, cardboard, styrofoam, colored envelopes or background cardboard, colored post-its, and thumbtacks

Steps of the solution:

1- For the wall area where the solution will be implemented, a location that teachers frequently visit is selected.

2- A board is prepared with the materials in the designated area.

3- The board is divided into five main parts with enough space for text to be written, and the columns from left to right are "Fact-checking tips" "Topics of interest," and "What sounds suspicious?" "Fact-checked version" and "Fact-checker" headings are added.

4- 10 leading questions are added to the "Fact-checking tips" tab:²⁵

1- How does the content you see make you feel? Do you get very angry, happy, or sad?

2- Is the source and the name of the author specified?

3- Are unnecessary punctuation marks or capital letters used? Are there any typos?

4- Can there be someone/something that it directly targets and wants to harm?

5- Is the date specified? Is it up to date?

6- Could it be an advertisement or clickbait? Or is it parody content for a joke?

7- Is it available in another source? Are these sources reliable?

8- Could it have been tampered with or is it completely fabricated?

9- Are the images, and videos used related to the ones mentioned?

10- Is the context conveyed holistically?

5- Teachers write the contents that they are curious about in the "Topics of interest" column. This can be written in the format of a claim. If the source of the claim is known, it is indicated. (For example, the claim that Pythagoras' wife was named Hypotenuse)

²⁵ Checkology. (2020). "Ten Questions for Fake News Detection".

6- The same or another teacher notes in the column "What sounds suspicious?" what features of the shared content are suspicious (For example, it's been shared a lot on social media, there are typos, the source is not clearly stated, it looks like a romantic legend, etc.).

7- Afterwards, this teacher confirms the knowledge about the basic fact-checking methods based on the clues (in this process, the methods found in this handbook can be followed).

8- The teacher cites his/her research in the column "Fact-checked version" (For example, Teyit examined this claim before and concluded that it is false for ... reasons and writes his/her name in the "Fact-checker" column.

9- After the implementation of this process for a certain period, it is recommended to organize an experience-sharing session about the fact-checked information and the fact-checking process with the group of teachers involved in the process. In this sharing circle, experiences about the process, prominent fact-checks, learnings, and feedback can be emphasized.

10- For this solution, the skills and attitudes associated with the critical digital literacy skill set to become a tool of the school ecosystem, the wall application can be turned into a regular practice and a tool that all actors in the school use together. The discussions arising during the implementation can be considered as the subjects on which the school will work.

Recommendations for digital adaptation of the solution:

Board applications such as Padlet & Wakelet can be used to adapt the solution to digital. In these board applications, a link can be created and the relevant

columns can be prepared as in the physical board. The dissemination of the process and discussions can be carried out through text messaging or social applications, and tools such as Zoom & Google Meet can be used for experience sharing and some critical discussions.

Note to the teacher who will implement the solution:

- The teacher who will implement the solution can look at the concept list for the levels.
- A social contract that will be prepared with the teachers who will participate in the implementation at the beginning of the process and that organizes the scope of the process in a participatory way can prevent crises or facilitate the discussion process in cases such as writing sensitive information on the wall that may trigger discussions that are not suitable for the school environment.
- The process of preparing and applying the wall should be managed by considering the universal design principles²⁶ and taking into account the special needs and characteristics of the teachers who will take part in the process. For example, in a school with visually impaired teachers, activities such as writing the columns on the board in the Braille alphabet during the face-to-face implementation, vocalizing the added texts, and describing the visuals are important for the inclusivity of the solution. The height of the board should also be adjusted considering the use of short and tall participants.
- After implementing the solution, we would be very pleased if you send us your feedback. Click here for the [feedback form](#).



TEACHER TO STUDENT

DIGITAL DETECTIVES



Creators of the solution: *İklim Babar Gören (Social Sciences), Merve Bursa (Social Sciences), Mustafa Dursun (Turkish), Şebnem Ayna (Turkish), Yasemin Gültekin (Psychological Counseling and Guidance)*

Purpose of the solution: Encouraging students to determine the accuracy of the information they come across on closed and open platforms and mobilizing students' the muscle of suspicion

The inquiry question: How can we prevent students from accepting the first information they encounter, especially in search engines and social media, by assuming it is accurate? How do we get students to approach information critically?

Intended impact:

- Supporting students' critical digital literacy skills
- Development of a critical attitude and habit by students against suspicious information they encounter
- Strengthening students' muscle of suspicion and use of fact-checking methods by them

To whom it can be implemented: Primary school 3rd-4th grades, secondary school and high school

Preparation period: 1 week

Implementation period: 4 meetings of 40 minutes

Required materials: For in-person: background cardboard, small box, colored A4, patafix, post-it, pencil, and board. For online: an electronic device with internet access.

Steps of the solution:

1- In the process, a group of students who want to volunteer is selected and the first meeting date is determined together. It should be ensured

that the number of students in the group does not exceed or fall below a number suitable for conducting optimal large group discussions.

2- In the first meeting, students are given conceptual information about the types of false information, and a matching/quiz game is played (a digital tool such as Wordwall, Kahoot, or Menti can be used).²⁷

3- In the second meeting, a sample content containing false information is displayed on the Padlet or school board, allowing students to find and discuss which type of false information they belong to.²⁸

Examples:

- [The claim that an orangutan in America started washing his hands due to the danger of the new coronavirus](#)
- [The claim that the grades of the student who did not share his lecture notes with anyone were reflected on the screen.](#)
- [Claims that the photos show the only extinct black lion left in the world](#)
- [The claim that melon, grapefruit, lemon, and egg come out of watermelon](#)
- [The claim that the photo was chosen as the photo of the year by National Geographic](#)
- [The bird in the video is a puppet made by a model designer](#)
- [The claim that the image is of a baby platypus](#)
- [The claim that gas from cows is the most important cause of climate change](#)
- [Video of a Ferrari passing under a truck is not real](#)
- [The claim that the photo shows a sheep fox living in Vietnam](#)
- [The claim that the video shows a cat scoring in an American football game](#)
- [Claim that the photo shows a real white bat](#)²⁹

²⁷ Foça, M.A. (2019). "The most common 7 types of misinformation". Teyit. [in Turkish]

²⁸ For an example Padlet: <https://padlet.com/ogretmenagi/yanlisbilgi..>

²⁹ Educators can pick suitable claims that are applicable to their own context by filtering through fact-checks done by IFCN signatory fact-checking organisations.

METHODOLOGY



TRUE

The fact-check reveals
that the claim is true.



FALSE

The fact-check reveals
that the claim is false.



MIXED

The multiple premises in
this claim contain both
true and false
information.

UNABLE TO
FINALIZE

The evidence is not
enough to label the
claim as true, false,
or mixed.

TYPES OF FALSE INFORMATION



Photos, videos, quotes or headlines that are wrongly
connected to an actual event

FALSE CONNECTION

Content fabricated and
that is not correct at all

FABRICATED



Content prepared for entertainment or teasing and
have the potential of misleading users

PARODY

Imitated content or accounts of
a person or an institution

IMPOSTER

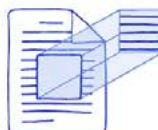


Misleading projection of
the real meaning

MISLEADING

Retelling true information by removing the inci-
dents, situations, or relations.

FALSE CONTEXT



Information altered via picking,
adding or removing

MANIPULATION

"[My students] were quite intrigued with the core concepts. One of them said: "I was very surprised to know what we were doing" They decided to be a "fact-checking leaders" on their closed and public [social media] accounts. "
- Social Sciences Teacher, Istanbul

4- In the third meeting, the students are divided into several groups to allow for small group discussions and the samples are allocated to groups. Groups are asked to examine and discuss the examples given and create a research plan. After the small group work, the meeting ends with the task of the groups to find out what types of false information are in the examples given to them and to explain the reasons.

5- In the fourth and final meeting, the types and causes of false information that students find in the examples given are discussed. The groups present to each other the assignments given in the previous meeting. At the end of the meeting, the students are allowed to make their evaluations of the process.

6- In terms of the sustainability of the implementation, a school board, Padlet, or a desired digital tool can create a space for students to detect and make visible the false information in the information they encounter, that is, to continue to do detective work. This process can be carried out similarly to the "Teachers' Room, in Need of Fact-Checking Wall".

Note to the teacher who will implement the solution:

- The teacher who will implement the solution can access the concept list for levels from the relevant section of the handbook.
- At the beginning of the process, it is recommended to prepare a social contract that will be formed with the students who will participate in the activity and that will regulate the scope of the process in a participatory manner. The social contract can be prepared in a way that specifies the meeting dates, discussion principles, values, and rules of the classroom environment determined together with the students, and can be positioned as open to update and discussion throughout the process.
- The implementation process should be managed by considering the universal design principles and considering the special needs and characteristics of the students who will take part in the process. For example, some examples of false information can be selected in video format (or other formats) to support different learning styles.
- After implementing the solution, we would be very pleased if you would send us your feedback. Click here for the [feedback form](#).



TEACHER TO STUDENT

FACT CHECKER'S HAMMOCK



Creators of the solution: *Hasan Dirik (English), Merve Bursa (Social Sciences), Gizem Ok Uluçay (Primary School), Venüs Yılmaz (Turkish), Okan Aksoy (Science), Muhammet Ali Mert (Psychological Counseling and Guidance), Soner Küçükökmen (Preschool) Yasemin Gültekin (Psychological Counseling and Guidance)*

Purpose of the solution: Encouraging students to fact-check information, research and diversify their sources to reach the correct information

The inquiry question: How can we encourage students to research and confirm the information they encounter in their daily life, on the Internet and social media?

Intended impact:

- Guiding students to look primarily at the source of every information encountered
- Enabling students to ask questions that lead them to confirm the accuracy of a piece of information while consuming it
- Supporting students' muscle of suspicion and enabling them to independently research and select reliable sources on topics of interest

To whom it can be implemented: Primary school, secondary school, and high school

Preparation period: 1 week

Implementation period: It is recommended to implement regularly for at least a month for the intended impact.

Required materials: Materials that can form a net, the title of Fact-checker's Hammock colored envelopes or background cardboard/colored post-its or thumbtack, a pouch for fact-checked information

Steps of the solution:

1- A designated area with high foot traffic is

determined in the classroom where students can meet constantly (For online implementation, digital board tools such as Padlet can be used).

2- A net is weaved in the shape of a hammock in the designated area or a net-like structure is created with similar materials.

3- This area is divided into four parts with the headings "suspicious information", "fact-checked information", "methods and sources" and "cues".

4- First, students are informed about the ways to use search engines effectively and to identify reliable sources.

5- Students are asked to bring suspicious information they have encountered on the internet, social media, or heard from their friends and add it to the hammock.

6- After all the suspicious information is collected, the most curious suspicious information is chosen and investigated by the class.

7- Under the "methods and sources" column, the students are asked to indicate from which sources they have conducted their research, and to write down the paths they followed. The students are expected to write down the fact-checking methods used in the research process (Example: I looked at other news sources, searched using reverse image search, checked if fact-checking organizations had reviewed it before, etc.).

8- The result is written under the column "fact-checked information" expressed as "true/false because..." with the students' rationale.

9- "Cues" is the area where students can share their fact-checking tips (Example: check for up-to-dateness, check the source, watch out for typos, etc.).

10- Suspicious information encountered by the students can be investigated and confirmed at regular intervals in the classroom.

11- After the implementation within the class, students are reminded that they can confirm the information in the hammock by researching it themselves and writing it down on the hammock to strengthen their fact-checking skills.

Note to the teacher who will implement the solution:

- For the sustainability of the implementation, the solution can be repeated regularly by allocating about 30 minutes in certain lessons or days.

"During one class, one of my students brought up a piece of news he had heard on the evening news. Then, questions such as "Are all news true?" and "What should be done to understand that it is true?" began to circulate in the classroom. As the muscle of suspicion started its operation, the smile on my face grew wider. "

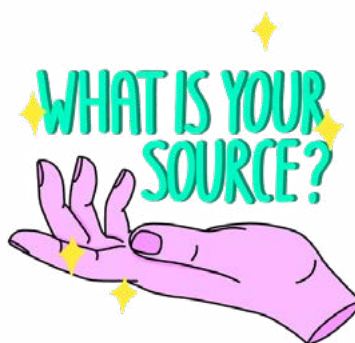
- Classroom Teacher, Adana

- There is a high probability that there will be unverifiable claims among suspicious information submitted by students. In such cases, it is possible to discuss the reasons why the information cannot be verified and what kind of information can be chosen to focus on during the implementation process.
- At the beginning of the process, it is recommended to prepare a social contract that will be formed with the students who will participate in the application and that will regulate the scope of the process in a

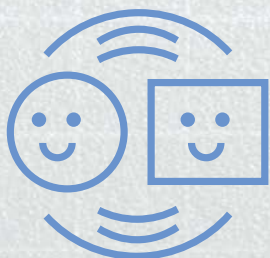
participatory manner. The social contract can be prepared in a way that specifies the meeting dates, discussion principles, values, and rules of the classroom environment determined together with the students, and can be positioned as open to update and discussion throughout the process.

- The application process should be managed by considering the universal design principles and considering the special needs and characteristics of the students who will take part in the process. For example, the height of the hammock should be adjusted considering the short and tall students.

- Please don't forget to provide your feedback after implementing the solution. Click here for the [feedback form](#).



Visual description: On the sticker above there is a pink hand facing upwards. On top of the hand, "What is your source?" is written in green.



TEACHER TO STUDENT

AWAKENING

TALES

Creators of the solution:

Meriç Dönmez (Psychological Counseling and Guidance), Gülay Yeniay Bulut (Classroom), Fatma Gülen (Classroom), Merve Bursa (Social Sciences), Şebnem Ayna (Turkish), Gözde Uysal (Maths), Semra İnan (Classroom), Muhammet Ali Mert (Psychological Counseling and Guidance), Nebi Burak Ay (Special Education)

Purpose of the solution: Supporting students' critical approach to the information they encounter and enabling them to acquire the basic concepts of critical digital literacy through tales.

The question to set out on: How can we support students' critical digital literacy skills and critical thinking and questioning in their information processing?

Intended impact:

- Supporting students' the muscle of suspicion and enabling them to gain basic critical digital literacy concepts by questioning tale adaptations and basic concepts in tales.
- Supporting students' ability to distinguish between suspicious, false, and correct information.
- Enabling the gaining of the habit of doing research by students with a questioning attitude in the face of suspicious information they encounter.

Regarding the solution:

The Awakening Tales solution includes a total of four different adapted tale examples and is also a methodological approach proposal that can be applied to support critical digital literacy skills. During the preparation process of this handbook, these four tales were transformed by using the basic concepts related to critical

digital literacy skills, which are appropriate for the level, and discussions on misinformation were made possible. These four tales, which are given with their instructions, adapted texts, and adaptation notes, can be rearranged according to different groups, or they can be transformed into different tales and stories with the approach followed. New Awakening Tales examples can be developed with children by combining the application process with creative writing achievements. The sample evaluation form is prepared to be given to the students after the application can be examined.³⁰

Recommendations for digital adaptation of the solution:

- While adapting the tale examples and application processes developed within the scope of this solution to distance education and digital environments, certain digital tools and methods can be used.
- Zoom Breakouts feature can be used for small group discussions.
- Large group discussion questions can be presented using interactive presentation tools such as Menti.
- Board applications such as Padlet & Wakelet can be used to archive the process, collect research findings, evaluate, and facilitate small group work.
- Suggested introductory and warm-up activities such as puzzles can be applied digitally through the same applications, or other tools can be preferred by creating new warm-ups.
- An example of "reading by coding" to be applied with tales is given below.

³⁰ You can reach the evaluation form for solutions of The Awakening Tales from [here](#).

Appendix. Reading by coding exercise

This exercise can be implemented to determine where the concept or information to be gained appears in the text (tale), to separate the evidence and data given in the text about the concepts, and to prepare the claims and pieces of evidence for the relevant discussion. In the handbook, the concepts to be discussed in the tales and to raise awareness among the students are stated in the introduction of each tale. Pre-coding the concepts in tales by the teacher will provide efficiency in the process of discussions. This exercise can be used as an evaluation method for students during the first reading of the awakening tale or after the whole process, taking into account the characteristics of the participant group.

Steps of the exercise

- 1-** The basic concepts selected to be taught in the awakening tale are first examined by the teacher and the tale is read by coding.
- 2-** While giving reading instructions (as needed, during the first reading of the tale, or the evaluation process), key concepts are stated as codes in a place accessible by everyone. In order to increase student readiness in the process, a code can be determined and used jointly for each determined concept.
- 3-** A copy of the text of the tale is distributed to each reader and when he/she encounters the determined concepts during reading, he/she is asked to mark them in different ways or to take a note next to the relevant part of the text.
- 4-** During coding, the chapters in the tale can correspond to more than one concept. This situation may or may not be noticed by the teacher. When this situation arises during the discussions, students are asked to state and discuss their thoughts on the coding they have done with their justifications, rather than precise statements and answers that indicate correctness or inaccuracy.

Below is an example of coding reading of the Awakening Tale: The Cicada and the Ant in the booklet:

AWAKENING TALE: THE CICADA AND THE ANT

Continuing their preparations for winter in the heat of August, the ants were grumbling as they heard the cicada singing on the branch all day;

"Sing your song now, what are you going to do when winter comes and the weather gets cold?"

Fallacy

*One of them: "You say so, but I've never seen a cicada suffer in winter. Critical thinking - fact-checking
Every year we meet other cicadas."*

Fact-checking – thinking with data

"I never thought of that," said the other one. "I've never seen either. We grumble to the cicadas while we work,

Skepticism and when winter comes we don't see any of them. Do they migrate to other places?

Claim

"But how can they survive without working at all?" said the other one.

Skepticism – critical thinking

*They all looked at each other and continued their work by singing the song "Work, work, work, only then it will be a pleasant winter"
Meanwhile, the cicada was thinking while singing its song;*

"Why do they call me August Bug (cicada)? Why not the summer bug or the song bug?"

Critical thinking

"Does anyone think about this? Being called only by the name of a month; Has anyone heard of the September bug or the March bug?"

Critical thinking – skepticism

Do they think that singing these songs is something that happens so easily and out of the blue?

Claim - fact-checking

They know me as a lazy, useless insect whose only job is to sing."

Myth - legend

"What can you do, that's life

Tale I: The Cicada and the Ant

Tale I: The Cicada and the Ant

Creators of the solution: *Meriç Dönmez, Gülay Bulut, Fatma Gülen*

With whom it can be implemented: Primary school 3rd and 4th grade, Secondary school 5th grade

Preparation period: 30 minutes

Implementation period: Three sessions of 30 minutes each

Required Materials: The original version of the tale (a book, audiobook, etc. to be chosen from the widely used versions and translations), the adapted version of the tale, links to digital applications (games such as foreshadowing, matching, etc.), cards for face-to-face application and smart board for WordWall and puzzle

Notes to the teacher who will implement the solution:

- The original version of the tale is made known to the children (For this, the tale can be read or listened to in the classroom). At this stage, one of the widely known accessible versions of the tale can be chosen.
- If digital tools are to be used, links are prepared and checked in advance.
- Depending on the level of the class in which the implementation will be carried out, concepts can be added or removed. Attention should be paid to this before the application starts.
- Before the application, the class should have a grasp of the selected basic concepts or the teacher should raise awareness about these concepts by asking questions in the process. (Example: Could there be any deliberately incorrect information in this text? If so, which information could it be?) The Socratic questioning technique can be followed at this stage.
- Before the application, a sample evaluation form is examined and a form is prepared and shared with the students after the application (You can find the sample form in the subheading of "regarding the solution" of the Awakening Tales solution).

Steps of the Solution

First Session

1- To create an expectation, the teacher shares a pre-prepared puzzle link on the smart board, saying to the students, "Today we will work on tales, and we will make a puzzle to find out which one is our tale." ³¹

2- After the students have completed the puzzle, it is determined that the tale is "The Cicada and the Ant" and the heroes of the tale are discussed. The original tale is told to the students and preliminary information is revealed.

3- The following explanation is made: "Today, we will talk about the tale "The Cicada and the Ant" from Awakening Tales."

a. The question of "What comes to your mind when we say 'Awakening Tale'?" is asked and their answers are received.

4- A presentation page is shown with the concepts of skepticism, fact-checking, critical thinking, myth, claim, confirmation, and fallacy. They are asked what these concepts remind them of and what they understand from them.

5- "The Awakening Tale: The Cicada and the Ant" is read (Note: The tale is given in the appendix after the solution steps). The tale is discussed; the students are asked what kind of connections there may be between the previous concepts and the ones mentioned in the tale.

a. What is the difference between this tale we read and the one we already know?

b. What kind of questions have arisen in your mind?

c. What kind of differences did you detect when you listened to the tale in this way?

6- Until the next lesson, they are asked to take notes about the questions and suspicions that



Visual Description: Two students in the classroom are trying to complete the puzzle game on the smart board. Another student behind them is watching them.

³¹ You can visit the example jigsaw puzzle from [here](#).

occur in their minds after this tale, and to do research on them, and the first session is ended.

Second session

1- The session begins by reading the Awakening Tale "The Cicada and the Ant".

2- Students are asked what they have noticed by taking into account the answers to their questions and the results of the research.

a. What do you know about the cicada, how/ where did you get this information?

b. In the text we read, Cicada wonders why it was given this name. Why do you think it could be?

3- Research results are discussed in class.

4- It is discussed which of the concepts of skepticism, fact-checking, critical thinking, myth, claim, confirmation, and fallacy discussed in the previous session match with their research results.

5- The concepts are reinforced by making concept matching with a tool similar to *WordWall*, matching with concept cards in face-to-face implementation or coding activity.

Third Session

1. The class is divided into several groups suitable for small group discussions. The groups are asked to rewrite the tale using their findings and the concepts discussed.

2. Students write their awakening tales in small groups.

3. Written awakening tales are shared in the large group. Tales are talked about.

a. In the large group discussion, students are asked about their learning outcomes obtained

from the tales and the application process with leading questions.

b. The key messages to be reached in the large group is that not all information we encounter may be correct, that many of the information we are exposed to in our daily life may not be incompatible with reality as in tales, and in the light of all this, misinformation may develop stereotypes and prejudices in us and lead us to wrong decisions.

4. These questions are asked: "After this implementation, how would you act and what would you do if you heard the tale in the version known by everyone? Why?"

5. A large group discussion takes place on the question of "After today when you come across information (when you read the news or when you come across social media content, etc.) which questions will you start to ask yourself more often?" and the process is completed.

6. An evaluation form to be prepared is shared with the students (You can find the sample form in the subheading of "regarding the solution" of the Awakening Tales solution).

Awakening Tale: The Cicada and the Ant

Continuing their preparations for winter in the heat of August, the ants were grumbling as they heard the cicada singing on the branch all day;

"Sing your song now, what are you going to do when winter comes and the weather gets cold?"

One of them said: "You say so, but I've never seen a cicada suffer in winter. Every year we meet other cicadas."

"I never thought of that," said the other one. "I've never seen either. We grumble to the cicadas while we work, and when winter comes we don't see any of them. Do they migrate to other places?"

"But how can they survive without working at all?" said the other one.

They all looked at each other and continued their work by singing the song "Work, work, work, only then it will be a pleasant winter."

Meanwhile, the cicada was thinking while singing its song;

"Why do they call me August Bug (cicada)? Why not the summer bug or the song bug?"

"Does anyone think about this? Being called only by the name of a month; Has anyone heard of the September bug or the March bug? Do they think that singing these songs is something that happens so easily and out of the blue? They know me as a lazy, useless insect whose only job is to sing."

"What can you do, that's life..."

Tale II: Pied Piper of Hamelin

Tale II: Pied Piper of Hamelin

Creators of the solution: Merve Bursa, Şebnem Ayna, Gözde Uysal

To whom it can be implemented: Secondary School 5th 6th 7th 8th grades

Preparation period: 1 hour

Implementation period: Two sessions of 40 minutes each

Required Materials: Paper, pencil

Preliminary Preparation

- The familiarity of the tale to be discussed with the students is questioned.
- Students are given appropriate concepts from critical digital literacy skills (for example; false news, false context, misleading content, disinformation, interaction, manipulation, diversion, fallacy, echo chamber, misinformation) and are asked to explore the concepts before they come to class.
- The sample evaluation form is examined before the application and is prepared to be shared after the sessions (You can find the sample form in the subheading of "**regarding the solution**" of the Awakening Tales solution).

Steps of the solution:

- 1- The teacher is expected to have a good grasp of the basic concepts of critical digital literacy during the preparation process. In terms of mastery of the subject and concepts, the teacher compares the concepts in the tale to be studied with the expressions in the tale.
- 2- Students are asked to research the concepts in the tale until the day of the application.
- 3- The first session starts with a 10-minute warm-up game.

Sample Warm-up (10 min)

The teacher forms a circle with the students. He/she asks everyone to remember the tales they read as a child. Then the whole group keeps a rhythm together. While keeping the rhythm, movements such as clapping and finger snapping can be done. During this rhythm, each participant in turn, by the rhythm;

- Tells the name of a tale hero

After a round is completed and everyone has spoken,

-Tells a place in the tale or a tale universe

After another round is completed and everyone has spoken,

- Says an adjective describing a tale hero.

**If the participants cannot say any of these during the rhythm or repeat what was said before in that round, they are out of the game.*

4- A conversation is held with the students on the tale "The Pied Piper of Hamelin", and the common points that everyone knows are briefly highlighted. Students are asked to convey their own experiences on the basic concepts to be researched and their general thoughts are received. Concepts are discussed in a large group in the class. Care is given to ensure that each student speaks about the concepts.

5- The class is divided into several groups suitable for small group discussions. The text of the awakening tale is given to the groups. It is requested that the text be read in small groups together and that the concepts researched and discussed are found in the text within sufficient time. The duration should be given flexibly according to the dynamics of the groups.

6- Afterwards, it is back to the large group discussion. The concepts studied in the groups and the expressions in the text of the tale are shared with each group taking the floor equally.

7- After the process of partnering on the concepts, the second session is realized. The practitioner can start this session with a similar warm-up. In the session, the appendix of "True - False - Suspicious Statements" is distributed to small groups and they are asked to code the statements together as "T" if they are true, "F" if they are false, and "S" if they are suspicious. (The aforementioned appendix is given at the end of the tale with the same title.)

8- After the statements are coded, we return to the large group discussion and the discussion is carried out over the students' answers. In this discussion process, students are asked to state and discuss their thoughts on the coding they have done, with justifications, instead of giving definitive answers that indicate correctness or inaccuracy.

9- The large group discussion concludes with sharing awareness of key concepts, hearing experiences of the implementation process, and sharing feelings.

10- The evaluation form is shared with the students (You can find the sample form in the subheading of "**regarding the solution**" of the Awakening Tales solution).

Notes to the teacher who will implement the solution:

- Depending on the level of the class in which the implementation will be carried out, concepts can be added or removed. Attention should be paid to this before the application starts.
- The application process should be managed by considering the universal design principles and considering the special needs and characteristics of the students who will take part in the process. For example, in groups with visually impaired participants, it should be checked whether the texts can be read by a screen reader during the use of digital tools, and the projected images should be described in detail.
- To support the practitioner, examples of matching the concepts with the relevant places in the tale are given below.

Examples of matching the statements in the tale and the basic concepts in the text:

"Who is this strange man? Where did he come from? He's not like us at all! His clothes are different. Judging by the group he was talking to, he doesn't seem like a very benevolent person... I wonder if he is the one who brought all the rats.

(False context)

The cowardly villagers did not believe that the piper did not take any gold, saying, "How could the king not keep his promise... If our king said he gave the gold, he did." **(Echo chamber)**

This rumor began to spread from ear to ear, and all the cowardly villagers believed that the piper brought the rats. **(Misinformation)**

Tale II: Pied Piper of Hamelin

Once upon a time, there was a cute little village. The most important feature of the village was that its people lived there happily and peacefully by helping each other in solidarity. If it wasn't for their cooperation, they could not be happy at all because of their king. However, these peaceful and happy days began to decrease gradually. The people became poorer and poorer because of the king's increased taxes. They were unable to care for themselves or their surroundings. Everywhere was full of litter and rubbish. Rats invaded all the houses and villages, they began to eat all the food in the houses and frighten the people. Over time, the name of the village became "the village with rats". The villagers set out for the king to talk about this situation. The king was rather indifferent to the complaints. "I've never seen a single rat until now. Do not exaggerate this issue too much. Just keep your houses clean," he said and dismissed those who came.

While some of the villagers were very angry at this situation, some of them were afraid of the king's anger and left the palace silently. The enraged villagers encountered a piper on the way. Piper asked the villagers where they came from and why they were so angry. The villagers told the piper what had happened. Hearing this situation, the piper made a plan with the villagers.

Seeing the piper talking to the angry villagers, the other cowardly villagers began to whisper among themselves. "Who is this strange man? Where did he come from? He's not like us at all! His clothes are different. Judging by the group he was talking to, he doesn't seem like a very benevolent person...I wonder if he is the one who brought all the rats. This rumor began to spread from ear to ear, and all the cowardly villagers believed that the piper brought the rats.

However, all the villagers who returned to their houses and cleaned their houses as the king had ordered, managed to drive away the rats. Days passed and when they woke up one morning, they saw rats running around everywhere. And this time, their number was even higher than before. Because the plan of the angry villagers and the piper came into play. Their number was so high that this time the rats were not content with the village but also raided the palace. That morning, the king woke up screaming because the rats not only covered his room but also began to gnaw at the king's ear. The king, who was very afraid of this situation, did not know what to do, so he sent news all around the country. "My dear people, we are in great misfortune. I know you're all in trouble because of the rats infesting your village. Since I care about you so much, I promise a great reward to the one who saves us from this trouble; I will give him a chest of gold," he said.

The messengers, who went around all the villages of the country, mentioned this strange-looking piper that the villagers were talking about. The piper went to see the king. He told the king that he could drive the rats away from the village with the pipe in his hand. The king, who was confused about what to do out of desperation, immediately accepted this offer. He was to receive a chest of gold when he finished the job.

Piper started to play the pipe and make beautiful melodies. Something happened at that moment and all the mischievous rats biding in the houses came out one by one from the hole they were biding in and started to follow the piper. Piper was both playing and walking toward the creek. The rats following him continued to walk towards the bridge as if they were under a spell. Together they disappeared behind the mountain and the rats never returned to the village. The piper, who did his duty well, returned to the village to receive his chest of gold from the king. However, the shrewd king did not give the piper's gold, thinking that they got rid of the rats anyway, even if he did not give them a chest of gold. Seeing that the plan worked, the piper was not at all surprised that the king did not give the gold to him. But on the other hand, he wanted to announce this to the villagers. He wanted everyone to know that the king did not keep his promise and did not give the gold he promised even though he drove the rats away from the village.

The cowardly villagers did not believe that the piper did not take any gold, saying, "How could the king not keep his promise... If our king said he gave the gold, he did." The angry villagers believed that the piper did not receive the gold and that the king might have deceived the piper. When one of the cowardly villagers, who accepted everything the king did unconditionally, went to the piper and started to talk about how he could make bad accusations against their king, the piper started to tell him what happened to him. The cowardly villagers thought about what had happened and realized what a mistake they had made. Everyone gathered in the village square to tell everyone what was going on, and the piper was also there. Thus, the villagers learned that the king had done injustice to the piper. In addition, they realized that injustice was done to them with the increasing taxes.

The king sensed that the villagers were united and would come to talk to him to defend their rights, and he realized that he could no longer lie because they had learned everything. First, he fixed the injustice in taxes. He had the village cleaned very well, with the part of all taxes reserved for cleaning up to this time. He did not forget his promise to the Piper and gave him a chest of gold. Thus, all the villagers continued to live in their clean villages and their children continued to play happily.

Appendix. True - False - Suspicious Statements

Write "T" if true, "F" if false, and "S" if suspicious, in the gaps at the beginning of the sentences below.

- ___ Villagers were very fond of the piper.
- ___ Cowardly villagers believed that the king did not give the gold.
- ___ The villagers were very happy with the king's rule.
- ___ The king made a plan to clear the village of rats after the villagers complained.
- ___ The king immediately listened to the villagers who came to him.
- ___ The cowardly villagers accepted everything the king did as right.
- ___ The reason the rats invaded the village was that the village was filthy.
- ___ Piper lived in a different village.
- ___ The king made great promises because he cared a lot about the villagers.
- ___ The piper did not like the king at all, because the king had wronged him before.
- ___ The piper moved to another village because of the king.
- ___ It was the piper who brought the rats.

Tale III: The Fox and the Crow

Tale III: The Fox and the Crow

Creators of the solution: *Semra İnan, Mubammet Ali Mert*

To whom it can be implemented: Pre-School, Primary School 1st, and 2nd grade

Preparation period: For his/her preparation, the teacher should read the original and the Awakening Tales version and review all the processes.

Implementation period: Two sessions of 40 minutes each

Required Materials: The original version of the tale (a book, audiobook, etc. to be chosen from the widely used versions and translations), the adapted version of the tale, links to digital applications (games such as foreshadowing, matching, etc.), cards for face-to-face application, puzzle and smart board

Steps of the Solution

1- To create an expectation, the teacher shares a pre-prepared puzzle link on the smart board, saying to the students, "Today we will work on tales, and we will make a puzzle to find out which one is our tale."³²

2- After the picture emerges, the students' guesses are received and the question of "Does anyone know the tale of the Fox and the Crow?" is asked. The teacher says, "If you were in this tale, would you want to be a fox or a crow?" and asks why. Then "I have a tale of "Fox and Crow", would you like to listen?" he/she asks and gathers the children in a circle. He/she begins to read the tale, reminding them to listen carefully.

3- After reading the tale, he/she states that he/she has some questions and starts a discussion by asking the open-ended questions given in the appendix. (The aforementioned appendix is given after the tale). The practitioner guides the discussion with why questions. After the discussion is complete, the session ends.

³²You can visit the example jigsaw puzzle [here](#).

4- In the second session, they come together again in the circle. This time, the children are asked to think about the sentences they will say. Sentences are expected to be classified as true, false, or suspicious. A tally can be kept on the board to make the classification visible.

5-The discussion process continues with thinking sentences and the subject is deepened.

6- In the last part of the lesson, with the title of what we learned from the tale, concepts such as correct information, source of information, misinformation, dissemination of information, echo chamber, and the muscle of suspicion are discussed. Again, a small game can be played about the concepts.³³

7- A form to be prepared by checking the sample evaluation form is shared with the students (You can find the sample form in the subheading of

"regarding the solution" of the Awakening Tales solution).

Notes to the teacher who will implement the solution:

- When the subject is discussed with the children, it is important that the teacher does not approve of the children's views and answers in any way and deepens the questioning with why questions. It is recommended that the practitioner pay attention to this point while continuing the discussion.
- Digitally prepared contents can be diversified and supported with different applications and Web 2.0 tools.
- Don't forget to provide your feedback after implementing the solution. Click here for the [feedback form](#).



Visual Description: Sitting in a half-moon shape on mats in the classroom, students listen to their teacher's instructions

³³ You can visit the Wordwall created for this creative solution [here](#).

Awakening Tale: The Crow and the Fox

One day, a crow landed on a branch,
 With a big piece of cheese in its mouth.
 The fox smelled the cheese and came:
*-Good morning, dear crow, he said. How well you are looking today,
 I can't take my eyes off you.*
 Look at those feathers, so shiny;
I haven't heard your voice before!
Maybe it is as beautiful as your feathers...
To be frank;
There is no other voice in this forest more beautiful than yours.
Other animals crossing the road agreed with the fox.
The rabbit added:
-I heard and came for your magnificent voice from far away.
The crow believed in these flattering words.
She said, "Let me utter them my "caw" so that they can hear my splendid voice.
*The moment she uttered "caw" the cheese fell off from her mouth and the fox and the rabbit crossing
 the road snatched it. And they ran away.*

*Days passed and this story was told from one animal to another in the forest. This incident that
 happened to the crow reached as far as the mouse in the forest. The mouse was very curious about
 how this incident happened and went to visit the crow. The mouse looked and saw the crow on a
 branch with some cheese in her mouth again.*

*-Good morning, dear crow, the mouse said. I heard about what happened with the fox and the rabbit.
 They told you that you have a beautiful voice and snatched your cheese. Did you really believe it?*

*Crow: All the animals in the forest say that my voice is beautiful. The crow was surprised and said,
 "Do you think differently?"*

*Since the mouse did not expect to receive this answer, it began to talk to itself in its head. It tried to
 think of a way to tell the crow the truth. Then it began speaking.*

*-Dear crow, I am sure your voice sounds beautiful to your ears. Your feathers have a unique shine,
 too. But what you are forgetting is that the fox and the rabbit uttered these flattering words to snatch
 your cheese. They made you believe in something that is not real.*

*After a moment of silence, the crow thought that the mouse might be right. She said to the mouse, "I
 think you are the right dear mouse. My voice sounds beautiful to me but I know that it is not that
 beautiful. Yes, my feathers are shiny but not sparkling. This is me and I love myself. When the fox
 and rabbit used exaggerated sentences, I couldn't get a hold of myself, I sang and lost the cheese. On
 top of that, I had to find another cheese.*

- "This is what I wanted to tell you about," said the mouse.

Remember this:

Don't believe what you hear from everyone, be suspicious first, and don't be fooled again.

Appendix. Open Ended Questions

- How did the fox and the rabbit know that saying nice words to the crow would work?
- How do you think this incident that happened to the crow spread to the whole forest?
- When the story of the crow and cheese spread, did other animals' ideas about the crow change? Why?
- Why do you think the mouse went to the crow?
- What changes occurred in the crow after the mouse's speech?
- What did this tale make you think of?

Appendix. True - False - Suspicious Statements

- ___ The crow took the cheese from a breakfast table.
- ___ All the words said to the crow are true.
- ___ The crow ate the cheese.
- ___ The rabbit is the fox's friend.
- ___ The mouse made the crow think about what he said.
- ___ All the animals in the forest said that the crow has a beautiful voice.
- ___ The crow that lands on the branch is a male.
- ___ The mouse tried to take the cheese from the crow.
- ___ Other animals living in other forests, too, have heard the beauty of the crow's voice.
- ___ The fox and the rabbit were very kind to the crow.
- ___ What the rabbit and fox said about the crow quickly spread throughout the forest.
- ___ The crow thought it's voice was beautiful.

"With my first grader students, we developed our the muscle of suspicion a lot. This year, I have witnessed many times that the language used by the teacher is reflected in the children. It turned out that I asked the question "Is it true?" frequently. One day they said to me, "You say so, but is it true?"

- Classroom Teacher, Istanbul

Tale IV: The Lying Shepherd

Tale IV: The Lying Shepherd

Developers: Nebi Burak Ay

To whom it can be implemented: Primary school and special education students

Preparation period: For his/her preparation, the teacher should read the original and the "Awakening Tale" version and review all the processes.

Implementation period: Two sessions of 40 minutes each

Required Materials: Tale text, smart board for a jigsaw puzzle and WordWall

Steps of the solution:

- 1-** For his/her preparation, the teacher should read the original and the "Awakening Tale" version and review all the processes.
- 2-** Teacher asks "Does anyone know the tale of the lying shepherd?" Then "I have a tale of "The Lying Shephard", would you like to listen?" he/she asks and gathers the children in a circle. He/she begins to read the tale, reminding them to listen carefully.
- 3-** After reading the tale, the teacher states that they will read various sentences and have a discussion about these sentences. He/she asks children to think about these sentences, requesting from they classify the statements as true, false, or suspicious. The classification can be noted on the board to make it visible.
- 4-** Discussion process continues by thinking sentences over true, false, and suspicious information, and the subject is deepened. The teacher asks the children to support their answers and guides the discussion with why questions. In this discussion process, students are asked to state and discuss their thoughts on the coding they have done, with justifications, instead of giving definitive answers that indicate correctness or inaccuracy.
- 5-** In the last part of the lesson, with the title of what we learned from the tale, critical digital literacy concepts such as **correct**

information, source of information, false information, dissemination of information, disinformation, misinformation, and the muscle of suspicion are discussed. Again, thanks to the *wordwall* activity prepared about the concepts, it is ensured to establish a connection between the concepts and the tale.

6- By playing the "True & Suspicious & False Information Maze Game", which will be prepared with Wordwall or a similar tool, it is ensured that the accuracy of the information given about the tale is discussed.

7- The evaluation form is shared with the students.

EXAMPLE:**Misinformation****Disinformation****Misleading**

Information that can mislead people

False information shared without any intention to harm and/or mislead

False information shared with the intention to harm and/or mislead

EXAMPLE:**Misinformation****Disinformation****Misleading**

Shepherd's forwarding the message he has seen on the WhatsApp group to the Village WhatsApp group without noticing it being a joke

Shepherd's sharing the message to trick and mislead the villagers

Shepherd's sharing the picture of the wolf as if he took those pictures

Notes to the teacher who will implement the solution:

- Studying the entirety of this handbook and mastering all of the key concepts, listed on the terminology section, will make it easier to manage the discussions.
- During implementation, the teacher must not in any way approve or reject the children's views and answers. The teacher needs to support the creation of justifications with why questions.
- Digitally prepared contents can be diversified and supported with different applications and digital tools.

Awakening Tale: The Lying Shepherd

Once upon a time, in a small village in one of the countries, there was a small shepherd who tended his sheep. This little shepherd would take his sheep to the foot of a mountain every day and graze them there.

*One day, while grazing their sheep, a message came from the Shepherd's WhatsApp group. In the message, it was written that the shepherd of a nearby village was attacked by wolves. The shepherd immediately shared this message in the village WhatsApp group with the villagers:
"Help! Help! Help! Help! The wolves are about to come to our village right now, they will attack the sheep!!!"*

*Seeing this message, the villagers ran towards the sheep with their shovels in their hands. When they got to the sheep, they started looking for the wolves. They were also asking the shepherd:
– Where are the wolves?*

The shepherd also did not understand at first, but later, when the shepherds opened the WhatsApp group, they noticed that it was a joke. He explained the situation to the villagers. The villagers returned to their homes somewhat disgruntled.

*The shepherd was very pleased that the villagers were frightened in this way and immediately came to his aid. He had a lot of fun with this situation. A few days later, the shepherd was very bored while grazing the sheep. "Let's joke around with those villagers," he said. He immediately entered the village's WhatsApp group:
"Emergency!! The wolves really attacked the herd this time, please come and save my life!" he wrote. Under the message, he put the wolf photos he found on the internet as if he had taken them himself.*

*Seeing this message and the photos, the villagers ran to the sheep with pickaxes and shovels. When they got to the sheep, they started looking for the wolves. They were also asking the shepherd:
– Where are the wolves?*

The shepherd could not speak because he was dying of laughter. "I played a little game with you. How could you have believed it so quickly?" he said.

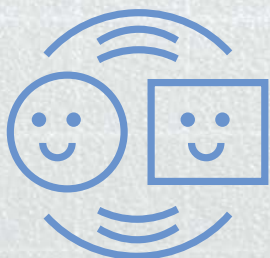
*The villagers were enraged. They went back to the village discontentedly. A few days later, while the shepherd was grazing the sheep, he suddenly saw a flock of wolves coming toward them from afar. The shepherd once again sent a message to the village WhatsApp group:
"What I said before was a lie, but this time the wolves are really here now, please help," he said. He sent messages one after another. He begged the villagers to come. No one replied, they did not believe what he wrote. The villagers he called did not pick up the phone, thinking that he was lying anyway.*

Thereupon, the shepherd, escaping from the wolves, ran to the village with all his energy. He explained what had happened and asked for help. But the villagers did not believe what he told them. The shepherd shed tears and begged, but the villagers did not care. The wolves snatched all the shepherd's lambs away.

The shepherd was very upset about this situation. He decided not to lie again. He apologized to everyone. Since then, he has become an honest and reliable person.

Appendix: True - False - Suspicious Statements

- ___ The shepherd was very regretful.
- ___ The villagers never lied.
- ___ The shepherd is male.
- ___ Shepherd is actually a good boy.
- ___ The shepherd doesn't have any playmates.
- ___ The shepherd did not know that what he did was wrong.
- ___ There is only one shepherd in the village.
- ___ The shepherd is always a lying boy.
- ___ The villagers never believed in the shepherd again.
- ___ The shepherd does not like sheep at all.
- ___ The shepherd has no parents.
- ___ The shepherd initially spread false information without realizing it.
- ___ The villagers are helpful people.



TEACHER TO PARENTS

**THE DIGITAL
LIFESAVER
FOR PARENTS**

"Now I know how to pass on what I've learned about digital security [to the parents]. "

- Classroom teacher, Adana

Needs indicated by the survey conducted with parents

Solutions for various target groups were prepared within the scope of the project which was carried out in the collaboration of Teachers Network and Teyit, aiming to empower teachers in critical digital literacy, while also developing new contents for the main stakeholders in educational ecosystems. Some of the teachers participating in the project also designed new activities that could be implemented with the parents. Before the activities for parents were designed, the participating teachers were surveyed May-June 2021 to identify the needs and ensure that the contents to be developed would meet these needs.

The main reason behind the survey for parents, unlike other target groups for whom new contents were developed within the scope of the project, was that the participant teachers wanted to be informed further about the needs of the parents, while they had more observations, experience, and insights about their own needs and the needs of the students so that the parents could benefit more from the solutions. In addition, with the Covid-19 pandemic and the introduction of distance education into our lives, parents had to accompany students' education processes, and critical digital literacy skills became more important for parents as well as other stakeholders of education. At this point, a survey was conducted within the scope of the project to understand the critical digital

literacy skills of parents and their needs in this regard. The survey, which was prepared using Google Forms and disseminated through social media and WhatsApp groups and which consisted of two dimensions as "**digital literacy and security**" and "**digital parenting**", was answered by a total of 348 parents, 173 of whom have a bachelor's degree or higher, 274 of them were women and 74 of them were men.

Some of the parents who answered the survey stated that they do not know how to use social media sites and closed messaging applications in terms of **digital literacy and security** and they felt the need to be informed further on these areas. While many parents state that they use passwords that cannot be easily guessed by others for their memberships in digital channels, a group of parents states that they share some of their passwords with people outside of their family. While the majority of parents state that they use antivirus software or a secure internet package, it can be seen that there are also parents who do not pay attention to whether the websites they visit are safe or not. Some of the parents state that they do not question the accuracy of the information they encounter on the internet, and when they are asked about the topics they want to consult experts about safe internet use, the questions "How can I ensure my digital security?" and "How can I understand fake news and true news?" are shared.

In the digital parenting dimension; some parents state that they do not know or control which pages their child visits on the Internet and that they do not think that their child uses the Internet efficiently. Most of the parents state that they think that their children spend more than 3 hours on the internet, apart from

virtual lessons, and that they do not spend time in front of the screen in a qualified and productive way. Parents say that they do not know how to support the safety of their children in digital environments, and they do not know who and where to contact in this regard. According to the parents who answered the survey, the most negative aspects of the internet for their children are addiction, safety problems, and physical and mental effects, while the parents state that they want to ask the experts about their children's internet use:

- What precautions can I take regarding security?
- How can I filter or limit? How long should children use the internet?
- What can I do in situations such as slang, swearing, cyberbullying, and violence?
- What can I do about the negative effects of virtual games?
- How can I prevent my child from having a digital addiction?

"I feel that I have multiplied my offerings to my parents who do not know what to do and ask for ways and methods. "

- Classroom Teacher, Bursa

Developers of the solution: *Yasemin Gültekin (Psychological Counseling and Guidance), Gülay Yeniay Bulut (Primary School), Useyyid Gökçen (English), Seval Binici (Turkish), Serpil Hizmetçi (Primary School), Aslı Güngörer (Psychological Counseling and Guidance), Hasan Dirik (English)*

Purpose of the solution: Supporting parents' digital citizenship and digital parenting skills

The question to set out on:

How can we ensure that digital parenting skills and awareness of related skill sets, which have become evident during the pandemic period, become a topic of discussion among parents?

Intended impact:

- Supporting parents to adapt to the digital world as stakeholders of education
- Nurturing parents' critical approach to suspicious information

With whom it can be implemented: Parents

Preparation period: 1 week

Implementation period: Four sessions on three separate days

Required materials: The presentation file

Steps of the Solution :

• This solution consists of the implementation of the "Introduction: Digital Parenting", "Critical Digital Parenting", and "Digital Security & Privacy" workshops on three separate days (you can access the presentation via QR code, download it to your computer and implement it).⁵⁴

• First of all, the 'Introduction' session is implemented for warming up on the subject.

• The "Digital Parenting" session that follows immediately aims to delve into the readiness of the parents.

• The "Critical Digital Literacy" session focuses on the field and aims to establish its connection with fact-checking.

• The "Digital Security and Privacy" session, on the other hand, examines ways to stay safe in the digital world in response to the needs indicated by the parents in the survey.

⁵⁴ You can reach the presentation document for the solutions of "Digital Lifesaver for Parents" from [here](#).

- At the end of the last session, an experience sharing circle is held in which experience and feedback about the process are discussed. This circle, facilitated by the teacher,, is led into open-ended questions about the process and core achievements. It is ensured that each participant has a voice. The circle is completed when each participant tells "how and with what they leave" the process.


- The instructions for the sessions can be found in the "speaker notes" section of the presentation.


Notes to the teacher who will implement the solution:

- In addition to the warm-ups already included in the presentation at the beginning of the

process, a series of familiarization exercise/ games can also be applied. Meetings, where the participants will get to know each other in-depth in small groups, discover their partnerships, and have fun, will be productive to create an atmosphere of trust at the beginning of the process.

- In addition to the circle at the end of the process, it is recommended to create experience sharing circles at the end of each session. It would be beneficial to allocate about 30 minutes for such circles. The main focus of the circles is to reveal the main achievements and focuses of the relevant session, the participant experiences on the problems, as well as to get an overall assessment of the session.



The Digital Lifesaver for Parents WORKSHOPS

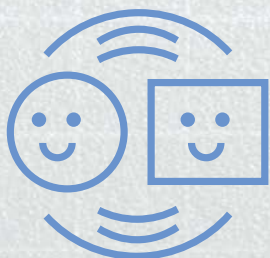
Day 1
Session-1 Introduction Warm-up
Session-2 Digital Parenting Workshop

Day 2
Session-3 Critical Digital Parenting Workshop

Day 3
Session-4 Digital Security and Privacy

Visual description: A slide in dark blue on which the programme of the "Digital Lifesaver for Parents" is given with workshop titles. In order, Day 1 Session 1: Introduction; Session 2, Digital Parenting Workshop, Day 2 Session 3, Critical Digital Parenting Workshop, Day 3, Session 4, Digital Safety and Security





FROM TEYIT TO TEACHER,
STUDENT, AND PARENT
FACT-CHECKERS

**FACT-CHECKER'S
STUDY DESK**

Creators of the solution: *Creators of the solution: Kansu Ekin Tanca (Teyit, Head of Education), Esra Özgür (Teyit, Head of Educational Content)*

Purpose of the solution: Following of the all stages of fact-checking by teachers, students, and parents in a way that will enable them to experience fact-checking and to conclude the process by verifying with fact-checking methods and approaches when they come across a suspicious information

The question to set out on:

How do we get students, teachers, and parents to experience fact-checking and weave the muscle of suspicion with the skills of fact-checking?

Intended impact:

- Enabling students, teachers, and parents to take steps towards gaining individual fact-checking skills and the habit of putting their skills into practice
- By experiencing fact-checking progresses step by step, the teachers discover how to implement it on the suspicious information they come across in their daily life
- The teachers will be able to implement different fact-checking tools and fact-checking methods
- The muscle of suspicion and fact-checking should be supported and fact-checking should become a habit

To whom it can be implemented: Primary school, secondary school, high school, university students, teachers, parents

Preparation period: 1 week

Implementation period: For the targeted impact, familiarization and in-depth knowledge of critical digital literacy concepts and fact-

checking methods are required. For the continuity of the application, it can be implemented by diversifying the samples in monthly periods.

Required materials: Case studies templates³⁵

Steps of the solution:

- Four different case study examples are given in this solution (Group Red, Purple, Black, Grey). The solution can be implemented with students, teachers, and parents who have gained conceptual and methodological skills and insights related to fact-checking and who want to actively experience fact-checking.
- For each case, its file should be reviewed.
- Before starting to implement the solution, it should be emphasized that these case studies were created for educational purposes to try out various methods and that it is necessary to prevent the spread of false information by reminding the speed and ease of spreading it.
- The case studies are designed for small groups of four to five individuals to be able to enable in-depth discussions in each group.
- Case studies and the steps to be followed by small groups are followed through templates.
- After each case study is divided into small groups, templates and guidelines are briefly reviewed, and any unclear points are explained.
- Observations regarding the false information given as an example are written in the "What's in the image?" box in the template. How many likes or shares it receives (interaction), content, language, and the channel it is located in are indicated here.

³⁵ You can reach the case study templates from [here](#).

- In the box "What clues did you find?", the source of the information and the nature of this source, the elements that draw attention to its suspiciousness, and the determinations that lead to the research are noted. (Example: Exaggerated expressions are used, Twitter accounts seem fake, etc.).
- "What methods have you followed? How did you confirm? The "Sources" box is the part where fact-checking methods and approaches are stated. (Example: The Twitter account seemed fake when we reached the original account, we realized that it was a fake account).
- In the "What is the truth?" box, the findings obtained after the research, why the content is false and the correct information is written.
- The type of misinformation is entered in the "Which type of misinformation?" box.



You can reach the case study templates from [here](#).

Note to the practitioner:

- Information on the templates to be filled in by the participants in the case studies and notes to the practitioner is given below. The practitioner can support the case studies during the steps by going to small groups during the implementation.
- The application process should be managed by considering the universal design principles and considering the special needs and

characteristics of the students who will take part in the process. For example, during the use of digital tools in groups with visually impaired participants, it should be checked that the texts can be read by a screen reader, and the projected images should be described in detail.

Group Red - The story of the tradition of being swindled

- A Google search can be done with the keywords included in the post.
- When we search for "Thodex" AND "Jet Fadıl" AND "Banker Kastelli" AND "Çiftlikbank", we can access the relevant content of the Zaytung site, which makes parody posts.
- Misinformation type: parody.

Group Black - Sea-snot reached the Aegean Sea

- The methods of checking whether or not the image in the post is from the Aegean may be asked.
- By performing a reverse image search, the links where the image has been used before can be checked. As a result of a reverse image search, news sites about sea-snot in Marmara are reached. In some content, it is stated that the image is from Bursa Mudanya.
- Clues in the image: (1) There is the emblem of Istanbul Metropolitan Municipality on the sea cleaning vehicle next to the ships. (2) The ships belong to BUDO. When compared, it can be seen that the ships are sea buses.
- Misinformation type: false connection and false context.

Group Purple - The last photo of the photographer who died as a result of the bear attack

- When a reverse image search is performed,

it is seen that the image is used in many news reports about the bear attack.

- Clues in the image: (1) There is a possibility that the image contains photoshop or other manipulation. It doesn't look very realistic. (2) There is a part of the "Worth 1000" stamp at the bottom left of the image. When we search on Google, we see that it is a photoshop contest.

- When we search about the photographer mentioned in the post, Michio Hoshino, it seems that there are different claims about the last photo he took. Previously, Teyit also prepared content related to the photographer. From these links, information about the photographer's story can be accessed in Turkish. When the photographer's story is read, it can be understood that there is no such photograph.

- When the link with the photo of the claim is examined from the links in the claim that the fact-checking platforms examine, the bear photo in our claim can also be found among the images.

- Misinformation type: false connection.

Group Grey - WhatsApp message regarding the photo showing the mask protest

- Here are some useful tips to confirm whether the photo is from Balıkesir: (1) The sign in the left corner of the photo reads "...latz". It looks like a foreign name. (2) Although the words written on the other cards people hold in their hands are not fully understood, there are words that we can suspect are not Turkish.

- When we search the photo with the reverse image search method, we can reach the site of the movement to which the banner belongs by following the signs on the sides of the banner. The original photo in the WhatsApp message can be accessed on the site. The Alexanderplatz subway sign in the original photo indicates

that the photo is from a meeting in Berlin. The original banner reads "#unteilbar - Solidarität statt ausgrenzung" meaning "#indivisible-Solidarity instead of exclusion".

- You can also reach the point where the photo was taken by examining the street views with the Alexanderplatz subway exits on Google Maps with the relevant participants.

- Type of misinformation: manipulation.

I think I will be the "fact-checker of the house" for my family and relatives. In the family environment, news in the media and viral WhatsApp messages can be on the agenda. It seems that it will be up to me, who is familiar with this work, to check the facts.

- Psychological Counseling and Guidance, Denizli



Visual description: The sticker above features a hand drawn in pink, pointing to the reader with the index finger, and a green "Debunked!" text.



CRITICAL DIGITAL LITERACY IN EDUCATION

GÜNALP TURAN

NETWORK COORDINATION AND COMMUNITY
MANAGEMENT SPECIALIST AT TEACHERS NETWORK

KANSU EKIN TANCA

HEAD OF EDUCATION AT TEYIT

We take the first step by getting acquainted with the concepts ³⁶

The world rapidly turned into a digital one with the pandemic and the fact that so much information that we cannot digest with the uncertainty brought by the epidemic reminded us that we need to develop our critical digital literacy skills quickly.

The exponential rise of the phenomenon, which we can define as information disorder, information noise, or information pollution, has brought the concept of "post-truth" back to the agenda both for the era we live in and for the educational environment. The rapid increase in the body of information, which is difficult to process and is a "noise" for the individual, means that both deliberate disinformation activities such as manipulation and propaganda, as well as unintentional false and misleading information (misinformation) are constantly in circulation, open to our consumption and sharing.

When we consider all these, we see that among the most important skills of the era we live in are critical thinking practices such as reaching the "correct" information, evaluating its accuracy, and reading its context. Critical thinking allows us to review our thoughts and find the reasons behind our opinions and provides a roadmap for reflecting on our decision-making and problem-solving methods. ³⁷ This means being cautious and conscious in the face of information we encounter, especially in the impulsive digital world.

Critical thinking also makes it easier for us to look at social problems and the events we

encounter frequently in daily life from different perspectives (critical lens/thinking hats). It offers an approach to individuals who are increasingly polarized and trapped in social (as well as digital) chambers, in which they can step outside the established boundaries. ³⁸ Learning environments are not free from these problems that we encounter in the digital world and that we can solve with critical thinking.

More than just fake news

It does not seem possible to explain the information disorder we experience in the digital world only with the concept of "fake news". We witness the problem of misinformation and information disorder in different disguises, from click-baits to deepfakes, from conspiracy theories to fake accounts. We experience that the content shared by the parody account, albeit it is manufactured for entertainment purposes, may sound "convincing" for some of us. Not only in one platform, but many places, we find that suspicious information is a problem that we have to deal with in closed messaging groups, teacher rooms, and classrooms.

When we look at the skill set we define as critical digital literacy, we see that one of the first steps is increasing familiarity with the field terminology and conceptual strengthening. It is especially important to be able to define concepts such as echo chambers, filter balloons, pseudoscience, and conspiracy theories inherent in information disorder in a multidimensional way and to match them with their reflections in our daily life. ³⁹

Our studies during the project process deliver that conceptual strengthening directly affects the encounters in the field and the general

³⁶This insight article was previously shared on Teyit's website under the "Critical Digital Literacy in Education" series and was adapted for the handbook.

³⁷ Gürkaynak, İpek, Füsün Üstel, Sami Gülgöz. (2020) "Critical Thinking", Education Reform Initiative. [in Turkish]

³⁸ Ibid ³⁹ Silverman, C. (2020). "The Verification Handbook for Disinformation and Media Manipulation". European Journalism Center.

educational experience, increases the visibility of many intricate issues for the teacher, makes these problems easier to point out, and paves the way for a solution. The fact that educators and we take certain concepts in our saddlebags, that is, become stronger with the concepts, means that we are climbing the steps of critical digital literacy.

I realized that I was avoiding critical digital literacy. We teach children a lot of things, but this one felt very important. I wanted to reinforce the bottom of the questioning. I became stronger personally and made my way to reaching the correct information. I was an avoider; I do not avoid anymore.

- Psychological Counseling and Guidance, Eskişehir

Carrying fact-checking to school

Joseph E. Uscinski, the author of *American Conspiracy Theories* says "Everybody believes in at least one conspiracy theory, maybe even a few."⁴⁰ The same can be true for misinformation that we come across on different topics and platforms, from suspicious information that we see as harmless to misleading information that can have serious consequences. We can be vulnerable to misinformation, especially with the effect of different psychological, technological and social factors; we can believe in misinformation regardless of our political views, education level, profession, or age, and even spread misinformation without realizing it.

Although the increasing familiarity with the field terminology is very effective, especially for detecting suspicious information and understanding what misinformation can cause, it may not be enough to confirm the misinformation we encounter in teacher rooms, parent meetings, and classrooms. In addition to strengthening critical thinking and media literacy skills, developing and implementing individual combat strategies, using strong communication methods, and supporting and maintaining critical approaches in educational settings are just as crucial.

Creating an educational environment that supports critical thinking

Misinformation is a multi-layered problem; solving the problem also requires different actions from many actors. The research underlines the importance of education systems in empowering individuals about disinformation through extensive and comprehensive studies, as well as methods such as detecting misinformation by digital media and preventing the spread of information with algorithmic solutions.⁴¹

It is necessary to prioritize the studies in this field, remembering that the aim of preparing individuals for social life, which is emphasized as one of the basic roles of education, also includes the preparation of the same individuals for digital life. For this, although comprehensive and innovative education policies and curriculum changes are needed, we also see that there are different ways in which educators adopt their initiative and follow in learning environments. Creating inquisitive classrooms and fostering a democratic and participatory culture in these classrooms and schools is crucial for critical digital literacy.

⁴⁰TTanca, K. E. (2019). "Teyit Dictionary". Teyit. [in Turkish]

⁴¹Tillet, J. (2019). "Why so many people believe conspiracy theories?" BBC.

⁴² An Agenda for Disinformation Research (2020). Computing Community Consortium.

Any study that focuses on critical thinking and research skill sets to foster inquisitive classrooms creates a great opportunity and change. As framed by Leslie Rupert Herrenkohl of the University of Michigan, it is necessary to ask questions and create discussions at each of the remembering, understanding, applying, analyzing, evaluating, and creating steps that progress from the lower intellectual level to the top.⁴² For a classroom environment that supports critical thinking and has an inquisitive culture, there are features such as a seating order in which the responsibilities of the class are shared, criticism and questioning are encouraged and exemplified by the teacher, the learners can find permanent support in their individual and group work and curiosity, and which will foster the interaction between the students.⁴³

The individual struggle of teachers with education stakeholders

Some different areas and problems trigger the change in educational environments that different education stakeholders need, want to focus on, and become stronger. Parents trying to adapt to digital with the epidemic period, teachers trying to break the resistance of belief against misinformation, educators who have not had the opportunity to reflect on the problem of misinformation yet, and students who want to improve their critical thinking skills, as well as their digital skills, show that a one-size-fits-all solution is not possible.

Making critical thinking a common value in educational environments and being an ambassador of transformation and change is not always easy for teachers. Teachers participating

in the project describe the issues they experienced and had difficulties with as follows:

"Some of my fellow teachers' muscles of suspicion are rock solid. They are stubborn and closed to other opinions or possibilities. According to them, whatever the news source they trust says is true. I don't know what I can do about them."

"One of my students said, 'There is purple baklava'. When I asked him 'Could you confirm it?', he said that he referred to his mother and father in such cases. Nothing has changed on the critical thinking front! Family elders are a reference point for the accuracy or inaccuracy of information. Of course, at the end of the lesson, we talked about fact-checking and agreed on doing research."

"The claim that autopsies in Russia showed that bacteria caused Covid-19", which we also examined in Teyit and marked as false, was also encountered by one of our teachers in the project.⁴⁴

"This issue was brought to me by a close friend of mine. When I said something to prevent him from spreading it, he said that this information should be known by everyone. He doesn't talk to me right now, he's out of the group."

This is exactly why teachers need to master verification and fact-checking skills as well as conceptual strengthening to overcome the difficulties they face in their struggle against misinformation. We have observed that developing the methods they need, especially when trying to communicate with someone who believes or shares misinformation, makes both individual and professional fact-checking impacts visible. Because in the process, teachers began to try to understand the other party, direct them to the sources that would

⁴²Sigel, I.E. 'Ed.', (2014). Development of Mental Representation Theories and Applications

⁴³Crawford, A. ve diğeri. (2008). Teaching and Learning Strategies for the Thinking Classroom. The International Debate Education Association.

⁴⁴Korkmaz, B. "Claims that autopsies in Russia showed bacteria caused Covid-19" Teyit. [in Turkish]

enable them to reach the correct information, encourage the other party to think critically and to do research with reasonable skepticism, and they were trying to promote critical thinking as a common value:

"One of the parents wrote to me at great length without any basis that he did not want students to be pressured too much about masks in face-to-face education, that the Ministry of National Education also stated that masks were not compulsory in classrooms and that there were many publications and researches about the health hazards of masks, let alone the protection of masks. If I were to encounter such a situation in the past - when I say 'the past' I mean two or three months ago, I would have responded to the situation by saying that he was thinking wrong without making any 'fact-checking', and simply by citing the explanations of the Ministry of National Education. But now I'm talking with the documentation. I noticed this change and I liked it."

Critical digital literacy in education: Supporting learning and empowerment

The concept of the "muscle of suspicion and curiosity" that we chose to describe fact-checking and critical digital literacy skills gives the clue in itself. Being suspicious about a piece of information and being curious about the truth is a 'muscle' because the more you practice it, the stronger it gets. The most important emphasis of the fact-checkers in the fight against misinformation is therefore making critical thinking, research, and truth-seeking reflexes a part of daily life.

In this project, we focus on the role of teachers so that fact-checking can be a common value

in educational settings and among education stakeholders. But the journey of becoming a critical digital literate is a long and arduous road. The experiences of the teachers show that the process is difficult but instructive and empowering, and that fact-checking is "contagious" when conveyed with the right methods.

We can adapt an individual's journey of empowerment in affirmation to the "conscious competence ladder" developed by Noel Burch in the 1970s, based on his consciousness (awareness) and skill level (competence). Let's imagine an ordinary internet user to get a hold of the development of the the muscle of suspicion ⁴⁶

The first stage is the **"unconscious incompetence"** stage. In other words, the awareness of the internet user about the need for fact-checking and critical thinking skills in the digital world has not yet emerged. At this stage, we can think that the internet user consumes information frequently, but the fact that the individual does not know what the information disorder problem is makes this person vulnerable. He/she is not well-equipped to fight back.

The next stage is the **"conscious incompetence"** stage. The Internet user is beginning to encounter the concepts, methods, and tools of fact-checking. In this process, he observes that misinformation is a bitter problem and begins to think about the causes of information disorder. With the increasing level of consciousness and awareness, he/she fully realizes that he/she does not have sufficient skills in critical digital literacy. This need, which has become evident to the user, pushes him/her to an effort to acquire skills.

⁴⁶Mind Tool. [The Conscious Competence Ladder](#).

The third stage is the "**conscious competence**" stage. With the increase of his/her awareness, the internet user begins to develop his/her skills. As much as he/she trains his/her the muscle of suspicion, he/she acquires a way and a method and begins to become an individual fact-checker. He/she finds motivation to question the information he/she encounters on the Internet and creates an opportunity to use the skills he/she learned. Now, it is possible to say that this user can think critically like a fact-checker and can use the toolbox of a fact-checker.

The last stage is the "**unconscious competence**" stage, the moment when critical thinking becomes a habit and turns into a reflex. Fact-checking is now always on the agenda and the skill set has become applicable regardless of the encountered problem. Although we say that the muscle of suspicion works without any special effort at this stage, it is worth emphasizing that it is also important to maintain this.

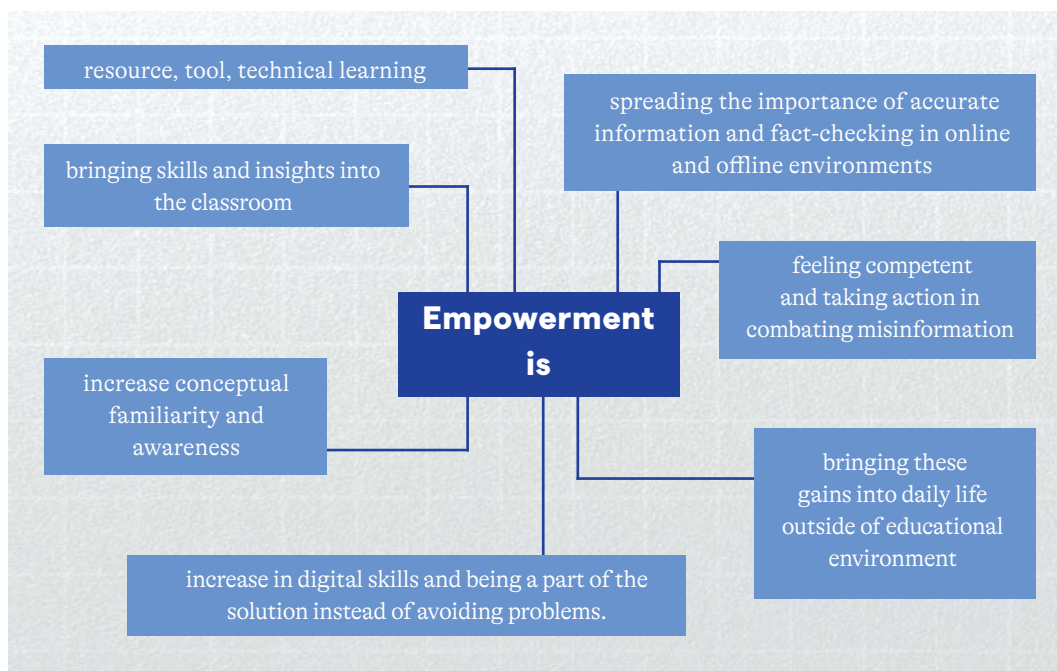
I realised that the parents of my students follow Teyit and talk about conspiracy theories that they have heard during parents' meetings.

- Classroom teacher, Istanbul

Because, as we mentioned at the beginning, if awareness and skills are not constantly utilized in daily life, they tend to disappear rapidly.

What kind of empowerment?

In educational settings, we experience that teachers, parents, and students also climb this ladder with the initiative of teachers. Based on the experiences of the teachers in the project, we see that the empowerment experienced while climbing the steps on this ladder is also diverse.



⁴⁷Gürkaynak, İpek, Füsun Üstel, Sami Gülgöz. (2008) "Critical Thinking". Education Reform Initiative. [in Turkish]

⁴⁸Günel, M. and Ceyhan M.A. (2016). "Developing School, Developing Student Project Final Report". Education Reform Initiative. [in Turkish]

Terminology



Primary school

baseless news
claim
clickbait
critical thinking
debunking
digital footprint
digital right
digital security
evidence
fabrication
fact-checking
fake news
fallacy
false information
imposter account
lie
manipulation
objectivity
prejudice
proof
pseudoscience
reliable source
search engine
social media
source of information
suspicious information
the muscle of suspicion
truth
verifiable
verification

Secondary school

baseless news
claim
clickbait
copy-paste journalism
critical thinking
data
debunking
digital footprint
digital right
digital security
dissemination
engagement
evidence
exaggeration
fabrication
fact-checking
fake news
fallacy
false connection
false information
imposter account
information literacy
junk science
lack of evidence
lie
manipulation
misleading headline
objectivity
prejudice
proof
pseudoscience

reliable source
scientific
search engine
social media
source of information
suspicious information
the muscle of suspicion
truth
verifiable
verification
verification tools
viral

High-school

algorithm
baseless news
taken out of context
information literacy
information disorder
scientific
manipulation
debunking
deepfake
disinformation
digital footprint
digital security
digital right
digital minimalism
verification tools
verification
critical thinking
engagement

truth
false connection
claim
infodemi
lack of evidence
copy-paste journalism
healthy skepticism x
unhealthy skepticism
malinformation
media literacy
misinformation
parody
propaganda
fallacy
fake science
fake news
diversion
social media
pseudoscience
the muscle of suspicion
objectivity
fact-checking
clickbait
troll
viral
dissemination

Teacher & Parent

artificial intelligence
cognitive miserliness
conspiracy theory

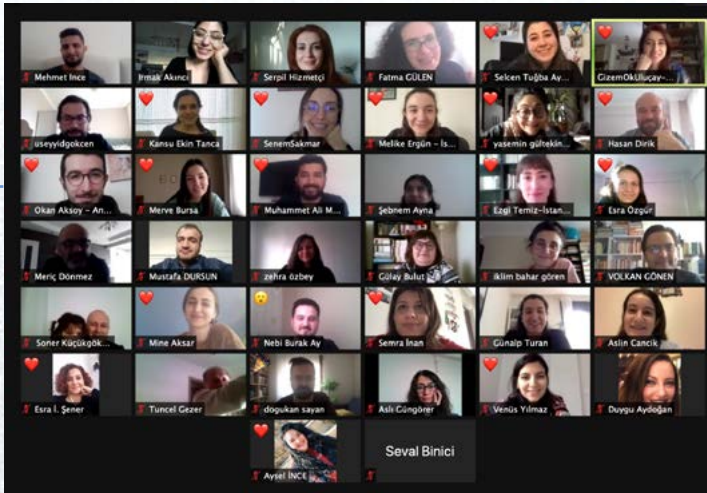
copy-paste journalism
critical thinking
cybercrime
debunking
deepfake
digital footprint
digital minimalism
digital security
disinformation
diversion
echo chamber
fact-checking
fallacy
false connection
filter bubble
healthy skepticism x
unhealthy skepticism
infodemi
information disorder
lack of evidence
malinformation
manipulation
misinformation
parody
post-truth
propaganda
pseudoscience
reliable source
scientific
taken out of context
the muscle of suspicion
transparency of sources

truth
verification
verification tools

Special education

baseless
claim
context
critical thinking
debunking
disinformation
exaggeration
fabrication
fact-checking
lie
manipulation
misinformation
misleading
myth
opinion
parody
post truth
reliable source
scientific
search engine
social media
the muscle of suspicion
truth
verification
verification tools

Snapshots from our online meetings



Visual description: On this page, there are three visuals with screenshots from the Zoom meetings of "Empowering Teachers with Critical Digital Literacy" project participants. The participants smile and red heart emojis appear on the left corner of their faces.

Notes

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Notes

