DURCHBLICKT!
Digital in eine gesunde Zukunft.

Ein Präventionsprogramm der
BARMER

DIGITAL HEALTH LITERACY IN SCHOOLS

STUDY REPORT 2023

Technische Universität München

Hochschule Fulda
University of Applied Sciences

IMPRINT

Editor
BARMER
Lichtscheider Straße 89
42285 Wuppertal
www.barmer.de

Text, graphics, and layout
We are Family GmbH & Co. KG

Principle investigators
Prof. Dr. Kevin Dadaczynski, Fulda University of Applied Sciences
Prof. Dr. Orkan Okan, Technical University of Munich

Study team
Lisa Fischer, Fulda University of Applied Sciences
Anja Hartmann, Fulda University of Applied Sciences
Pia Rangnow, Fulda University of Applied Sciences
Lisa Stauch, Technical University of Munich
Denise Renninger, Technical University of Munich

CONTENT

01

01 | FOREWORD

DIGITAL HEALTH LITERACY IN SCHOOLS


10
9
To-do
Health Literacy
Media Skills
Internet Safety

WHY WE NEED TO ACT URGENTLY

Digitization has long arrived at the center of our society – even when it comes to health issues. With the abundance of digital health information in particular, the demands on users are increasing. Children and young people represent a special target group. Digital health literacy is in demand more than ever. It is an important key for maintaining one's own health in an increasingly digital world. Learning and teaching health literacy is particularly important for children and young people. That is the reason why BARMER is committed to improving digital health in schools. Our goal is to ensure that children and young people can grow up healthy in this country.

Health literacy means the knowledge, motivation and the ability to find, understand, evaluate, and apply health information. This contributes to health and quality of life, to make use of meaningful preventive measures, and to cope well with illness.

Ein Präventionsprogramm der
BARMER

As the entire healthcare system is in the midst of the digital transformation, these requirements and their complexity will continue to increase in the future.
To this end, BARMER, in collaboration with the Technical University of Munich and Fulda University of Applied Sciences. For the first time, we have assessed the status of digital health literacy in schools, particularly focusing digital health literacy of students and teachers. The results show that there is an urgent need for action to promote digital health literacy at school, and that digital health literacy helps to promote health.

Our goal is to support children in growing up healthy.

BARMER's new prevention program called „DURCHBLICKT!" starts precisely from that angle. Schoolchildren are taught practical skills in order to become competent to search for health information on the Internet and then learn how to use it safely in everyday life. Digital media are part of everyday life of the younger generation. The key is to use them in a „healthy" way. „DURCHBLICKT!" not only supports schoolchildren but provides teachers with well-founded materials for their lessons for the classroom. Parents are not left behind as their digital health literacy is addressed as well.

Prof. Dr. med. Christoph Straub
Chairman of the Board of BARMER

„DURCHBLICKT!" is the first comprehensive example on how health insurance companies can implement the legislator's mandate to bring prevention directly into people's lives.

I wish you an interesting and informative reading. I would like to take this opportunity to thank the authors of both sub-studies, Prof. Dr. Orkan Okan from the Technical University of Munich and Prof. Dr. Kevin Dadaczynski from the University of Applied Sciences Fulda, whose work provided an excellent basis for our project.

Christoph Straub

02

02 | THE STUDIES

STUDY DESIGN, DEMOGRAPHICS AND SCHOOL DATA


9
Germany
@emma
Germany
REMINDER
Test tomorrow!
NOAH
Hiiii Emma!

STUDY DESIGN

This is the first representative study to assess digital health literacy of schoolchildren at German schools

In order to receive a comprehensive picture of digital health literacy in schools, the study comprises two surveys assessing the digital health literacy of both students and teachers.

RESPONDENTS

TEACHERS

Teachers with and without leadership position in school

STUDENTS

9–18 years

SURVEY DATE

2022
2022 October – December

ACROSS SCHOOL FORMS

Secondary Schools
(lower secondary schools)

GERMANY-WIDE

STUDY OBJECTIVES

Assessing the state of digital health literacy among students and teachers in schools.

Assessing teaching and learning of digital health literacy in lower secondary schools.

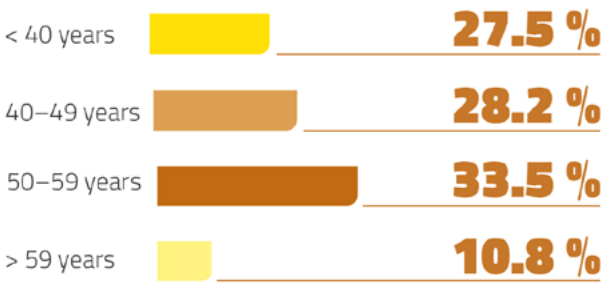
DEMOGRAPHICS AND SCHOOL-RELATED DATA

TEACHERS

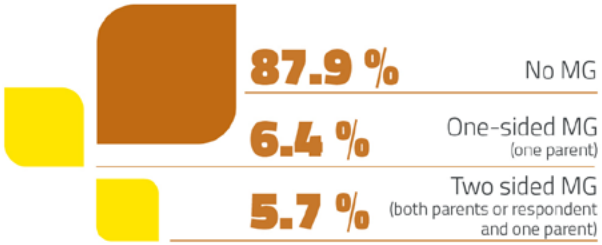
Sex

None of the respondents indicated „inter*/intersex" as their biological sex. Information on gender was collected but not yet evaluated.

Age



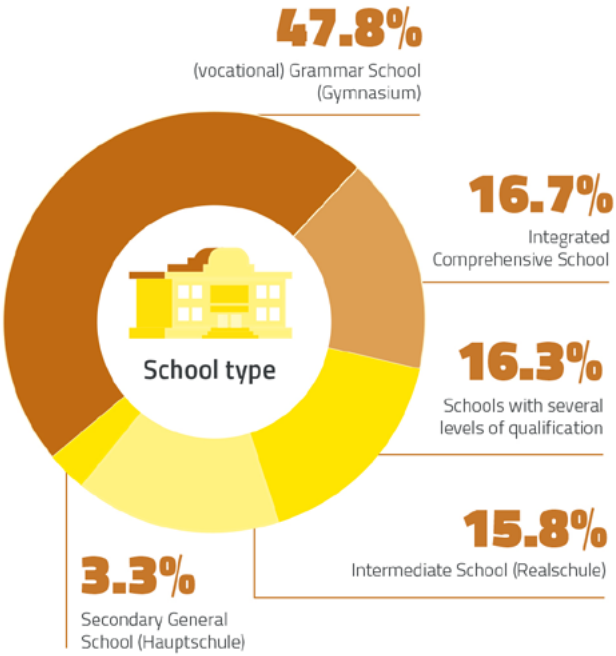
Migration background (MG)



Position

1.181

Secondary school teachers with and without leadership position

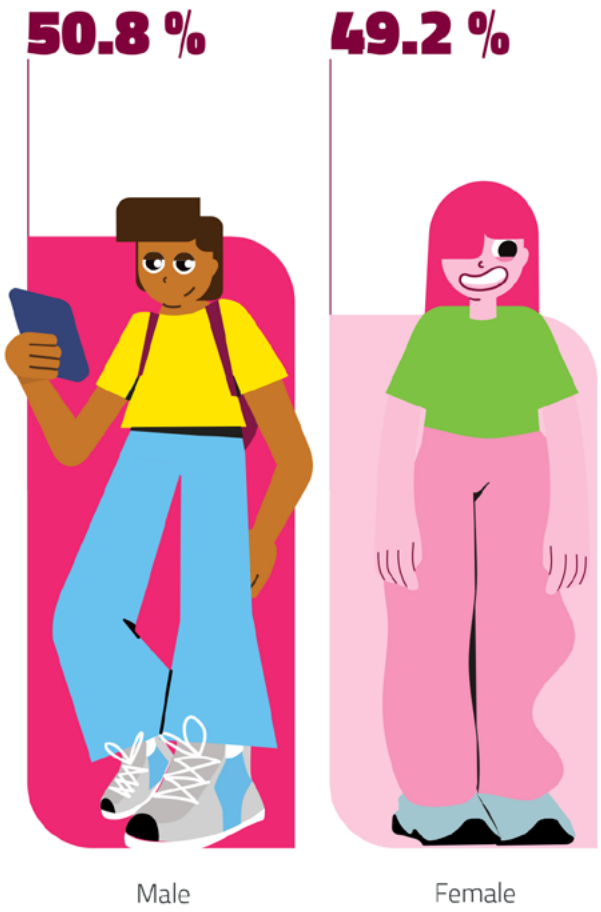


School type

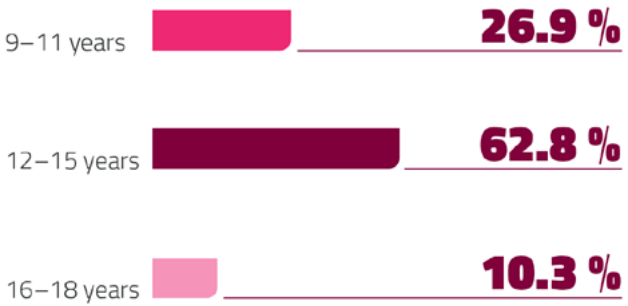
In Germany, students in secondary school are taught at different educational paths either in one school (comprehensive secondary school) or in separate schools (Hauptschule, Realschule or Gymnasium). Qualifications and certificates depend on the school type.

STUDENTS

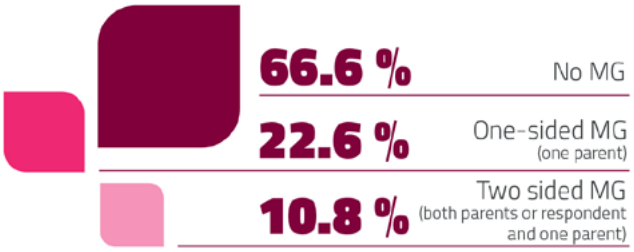
Sex



Age

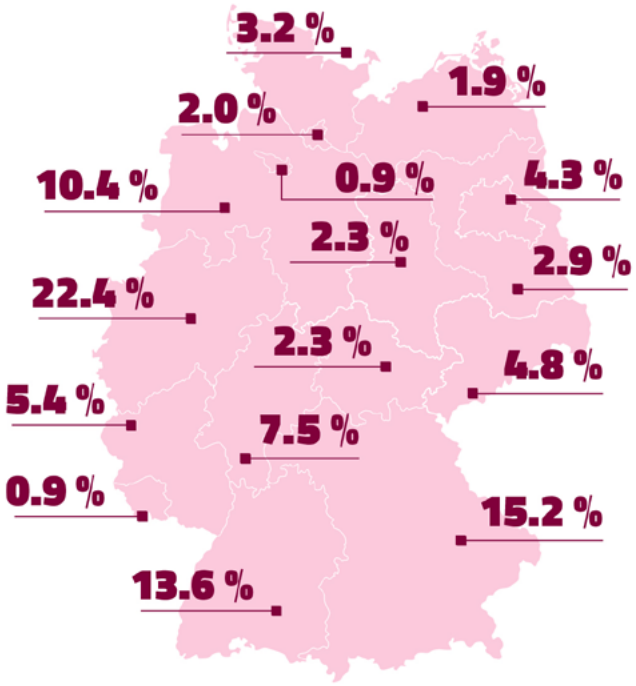


Migration background (MG)



None of the respondents indicated „inter*/intersex“ as their biological sex. Information on gender was collected but not yet evaluated.

Federal state

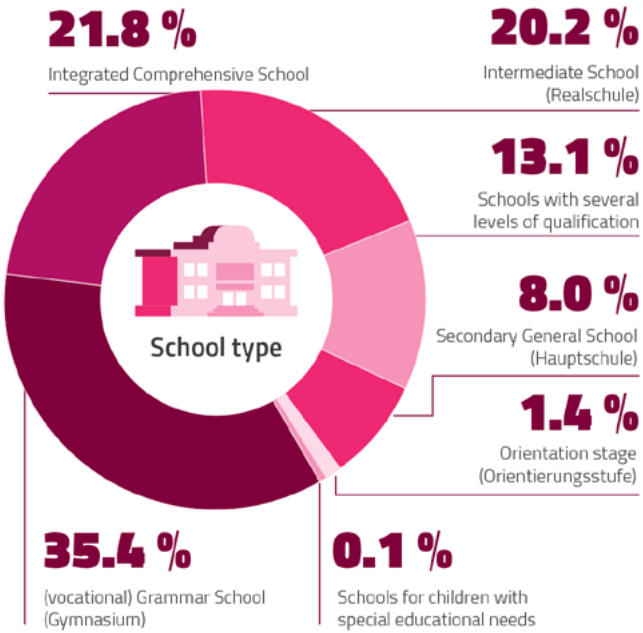


School type

In Germany, students in secondary school are taught at different educational paths either in one school (comprehensive secondary school) or in separate schools (Hauptschule, Realschule or Gymnasium). Qualifications and certificates depend on the school type.

1.448

Secondary school students (9–18 years)

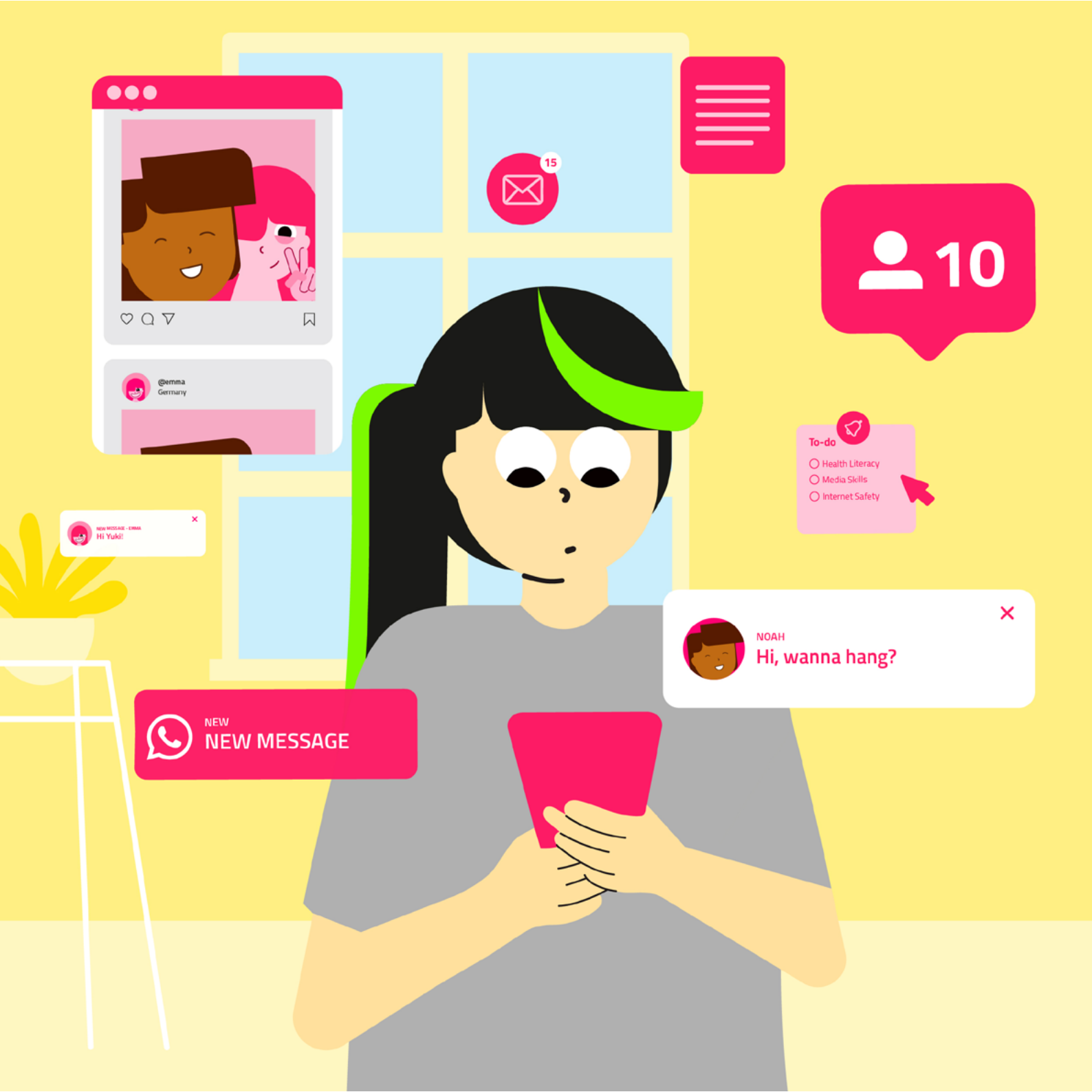


*Percentages have been rounded.

03

03 | DIGITAL HEALTH LITERACY

AN INTRODUCTION


@emma
Germany
15
10
To-do
Health Literacy
Media Skills
Internet Safety
NEW MESSAGE - EMMA
Hi Yuki!
NOAH
Hi, wanna hang?
NEW
NEW MESSAGE

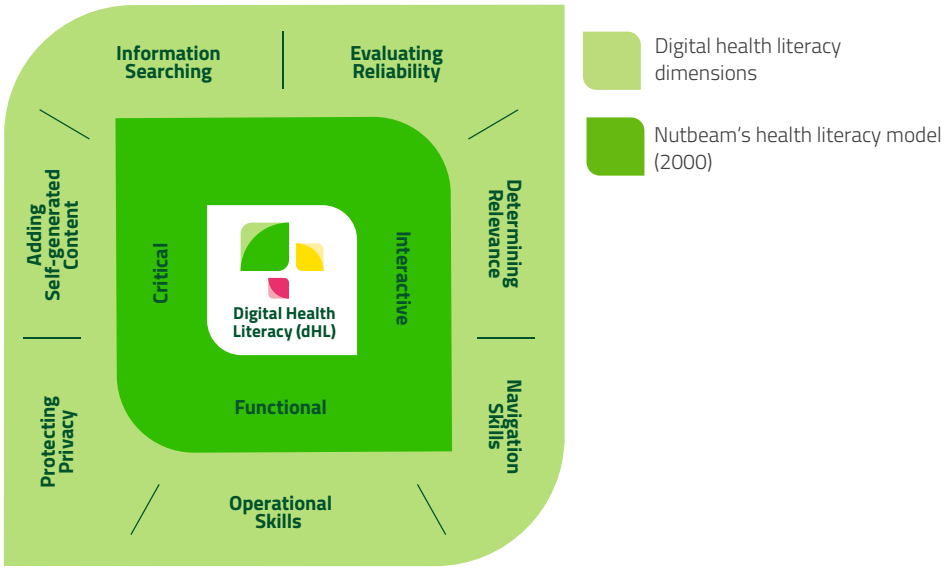
WHAT IS DIGITAL HEALTH LITERACY?

Digital health literacy is generally understood as the ability to find, understand and assess health information on the Internet and to apply it to one's own health in everyday life.

Health literacy can be distinguished into three areas, which have been used to inform all teaching and learning contents of the prevention program DURCHBLICKT!

- Functional health literacy: basic skills such as reading, writing, comprehension
- Interactive health literacy: communicative skills to interact with others
- Critical health literacy: ability to critically analyse information

For DURCHBLICKT!, seven particular dimensions are linked to these three areas, which are derived from digital health literacy (hereafter dHL):



SEVEN DIMENSIONS OF DIGITAL HEALTH LITERACY

1 | Operational Skills:

Basic ability to use digital terminal devices (e.g., PC or keyboard) and Web applications (e.g., navigating the Internet)

2 | Navigation Skills:

Ability to use the Internet in a way that allows answering health-related questions (e.g., finding your way around a website, keeping track of a website)

3 | Information Searching:

Ability to perform a search query or select relevant hits

4 | Adding Self-generated Content:

Ability to formulate concerns in digital form and express them

5 | Evaluating Reliability:

Ability to evaluate health information critically in terms of their quality and credibility

6 | Determining Relevance:

Ability to decide whether information applies to oneself and is useful in making one's own health decisions

7 | Protecting Privacy:

Ability to handle personal information and to assess the security of media providers

04

04 | STUDY RESULTS

DIGITAL HEALTH LITERACY IN SCHOOLS


NEW CHALLENGE
WATCH IT NOW!
12
NEW
LENNA IS STREAMING
@lina
Germany
10
To do
Health Literacy
Media Skills
Internet Safety

DIGITAL HEALTH LITERACY

TEACHERS

42 %

of the teachers have low digital health literacy.

- dHL was independent of **sex**
- dHL was not linked to **age**
- Teachers with two-sided **migration background** were most likely to report a high dHL (73.5%), while 45.7% of the teachers with one-sided migration reported a high dHL, as did 57.6% of teachers with no migration background
- dHL levels were not related to the **school type and position**

Teachers reported to have most difficulties in the following action areas (see also fig. on the right page):

- Protecting privacy
- Determining relevance
- Evaluating reliability

STUDENTS

- dHL was not related to **sex**
- **dHL was increasing with age:** 63.3 % of the 16-18 year-olds reported high dHL
- **Migration background** and dHL were not linked
- Higher **family affluence** was associated with higher dHL (61.8%), while lower **family affluence** was linked to lower dHL (70.6%).

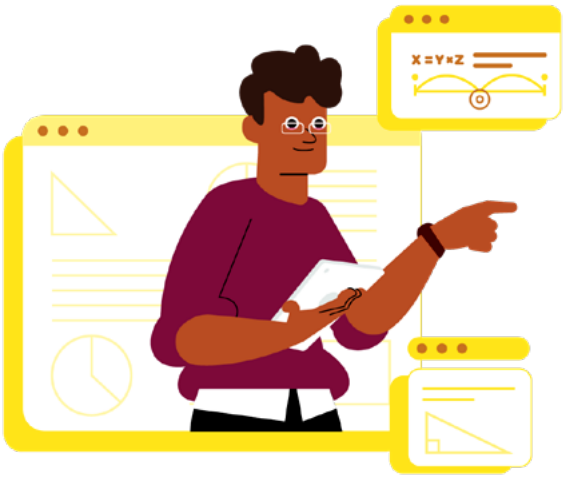
Students report to have the most difficulties in the following action areas (see also fig. on the right-hand side):

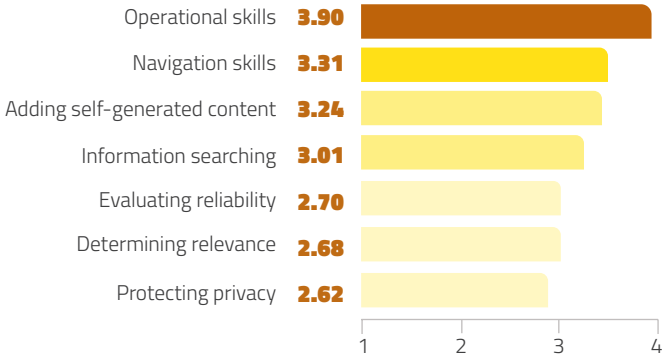
- Protecting privacy
- Navigation skills
- Evaluating reliability

53 %

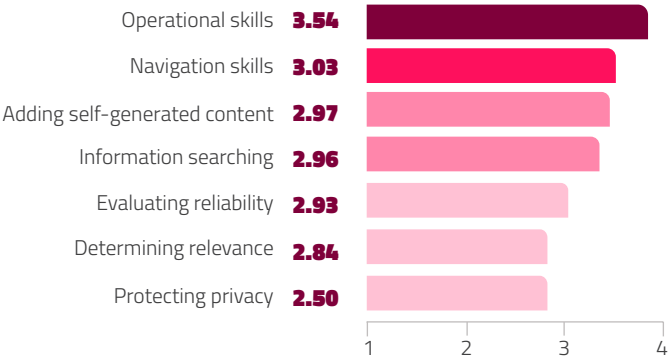
of the students have low digital health literacy.

Teachers and students reported their digital health literacy as follows:





On a scale from 1 to 4, while 1 indicates the most difficulties and 4 the least difficulties



On a scale from 1 to 4, while 1 indicates the most difficulties and 4 the least difficulties

TEACHING DIGITAL HEALTH LITERACY IN THE CLASSROOM

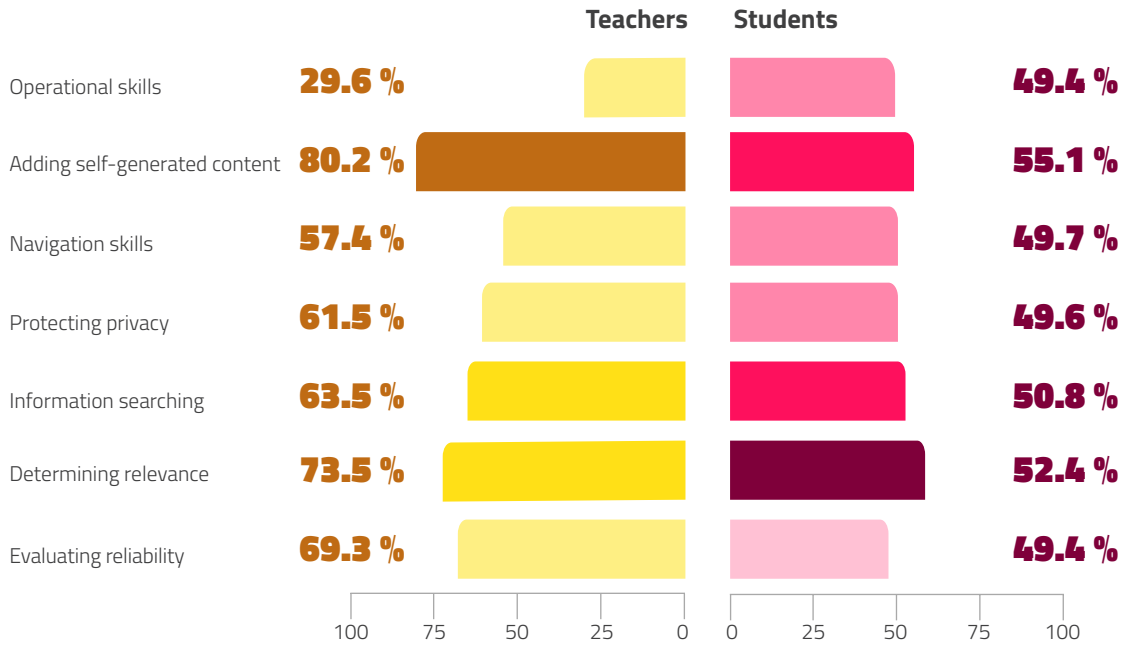
TEACHERS

About two-thirds of the school personnel surveyed reported that digital health literacy content is taught inadequately at their school.

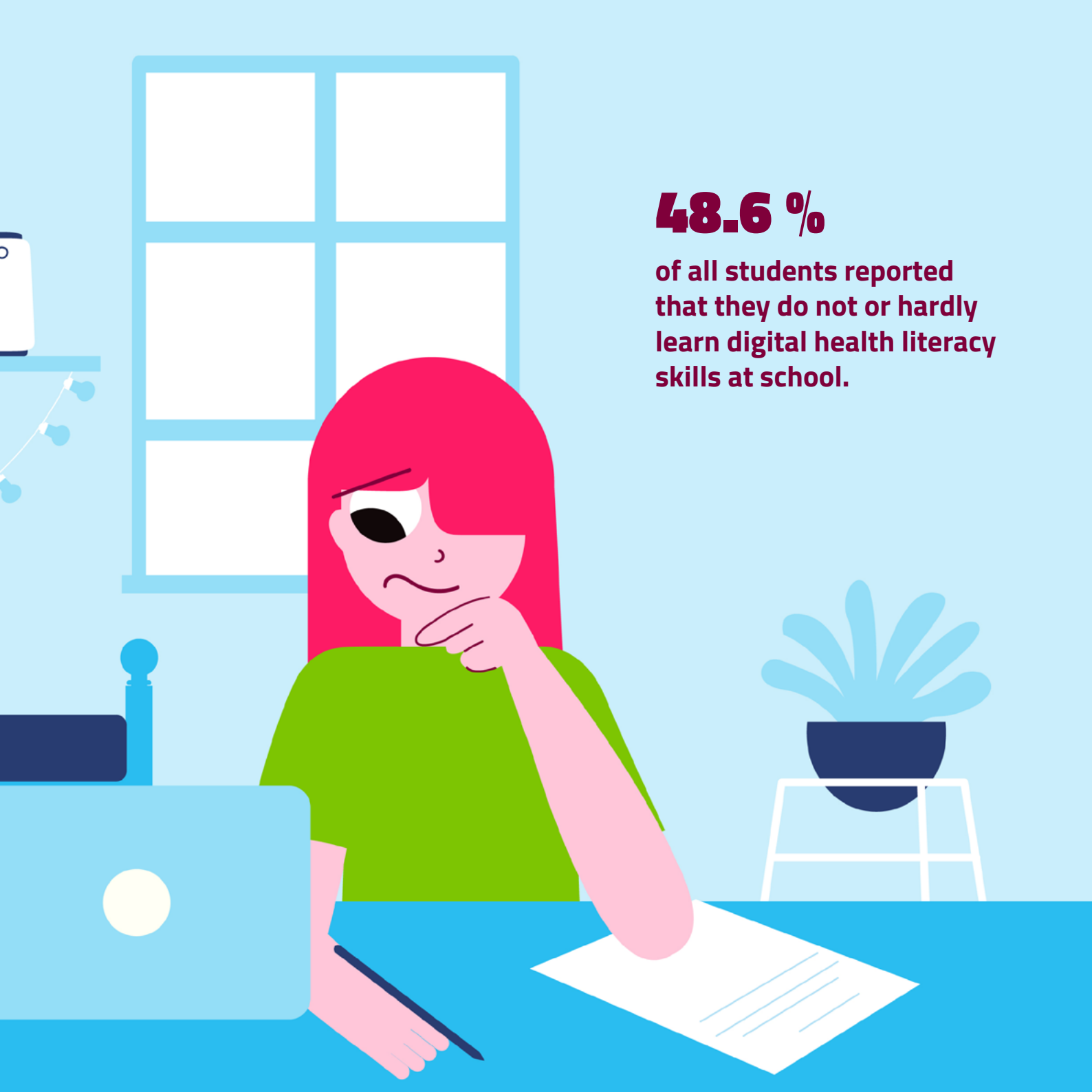
STUDENTS

About half of the students indicated, that they do not or hardly learn digital health literacy content in their school.

The fact that digital health literacy in these areas is not, or rather not taught and learned, was reported by...



... of all teachers and students.



48.6 %

of all students reported that they do not or hardly learn digital health literacy skills at school.

DIGITAL HEALTH LITERACY AT SCHOOL

TEACHERS

The higher the digital health literacy of teachers, the more digital health literacy content they teach in school.

- **Sex, age, migration and school type** were not linked to teaching of dHL at school.
- **Teachers without leadership position** were more likely to report that little or no dHL content is taught at their school (68.9% vs. 59.9%).
- Teachers **who rated their ability to teach dHL as high** were more likely to report that relevant content is taught at their school (36.3% vs. 23.6%).
- **Teachers with higher dHL** were significantly more likely to indicate that dHL content is taught at their school (39.8% vs. 29.6%).
- Teachers with a **positive attitude** towards dHL were more likely to report that dHL content is taught at their school (33.7% vs. 26.9%).

STUDENTS

- **Sex, school type and state** were not linked to learning dHL in the classroom.
- With **increasing age**, more dHL content is learned at school: 46.1% of 9 to 11-year-olds and 60.3% of 16 to 18-year-olds reported to learn dHL and dHL related content at school.
- **Grammar school students were more likely to learn dHL at school:** only 24.3% reported that they do not learn any or hardly any dHL content, while more than 30% of the other types of school felt this way.
- Students from **Thuringia and Schleswig-Holstein** were most likely to report they do learn dHL adequately at school (61.3% and 61.4%, respectively), while **Bavarian** students were at the bottom end with 42.9%.
- With 54.1%, students without an **immigrant background** are most likely to learn dHL at school. Among those with a single or double-sided migrant background, this figure is less than half.
- Students with higher **family affluence** were more likely to learn dHL at school (55.7%) than those from families with low affluence (18.8%).

81.2 %

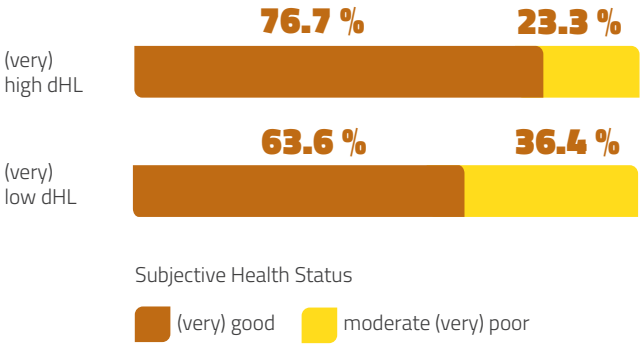
of students with low family affluence reported learning digital health literacy content at their school as inadequate or problematic.

BEING HEALTHY THROUGH MORE DIGITAL HEALTH LITERACY

The survey results showed a relationship between digital health literacy and health outcomes:

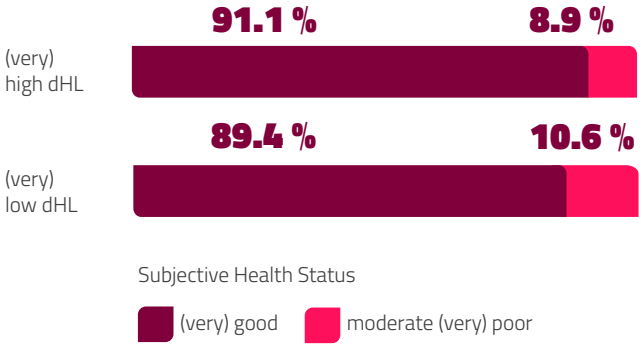
TEACHERS

Teachers with higher digital health literacy more often reported a good or very good health status



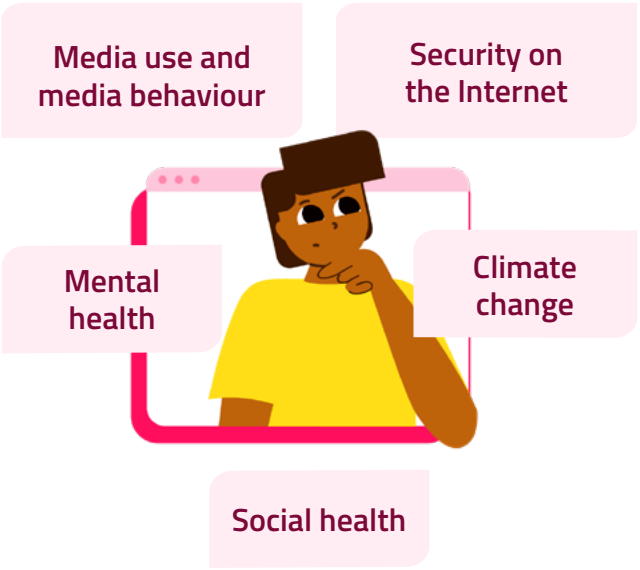
STUDENTS

Students with higher digital health literacy more often reported better subjective health status



Health has many facets...

...it is influenced by a multitude of factors that are important in order for children and adolescents to grow up healthy. DURCHBLICKT! pays attention to all of these areas.



DURCHBLICKT! supports improving health literacy, digital health literacy, and better health behaviours in schoolchildren. They learn ...

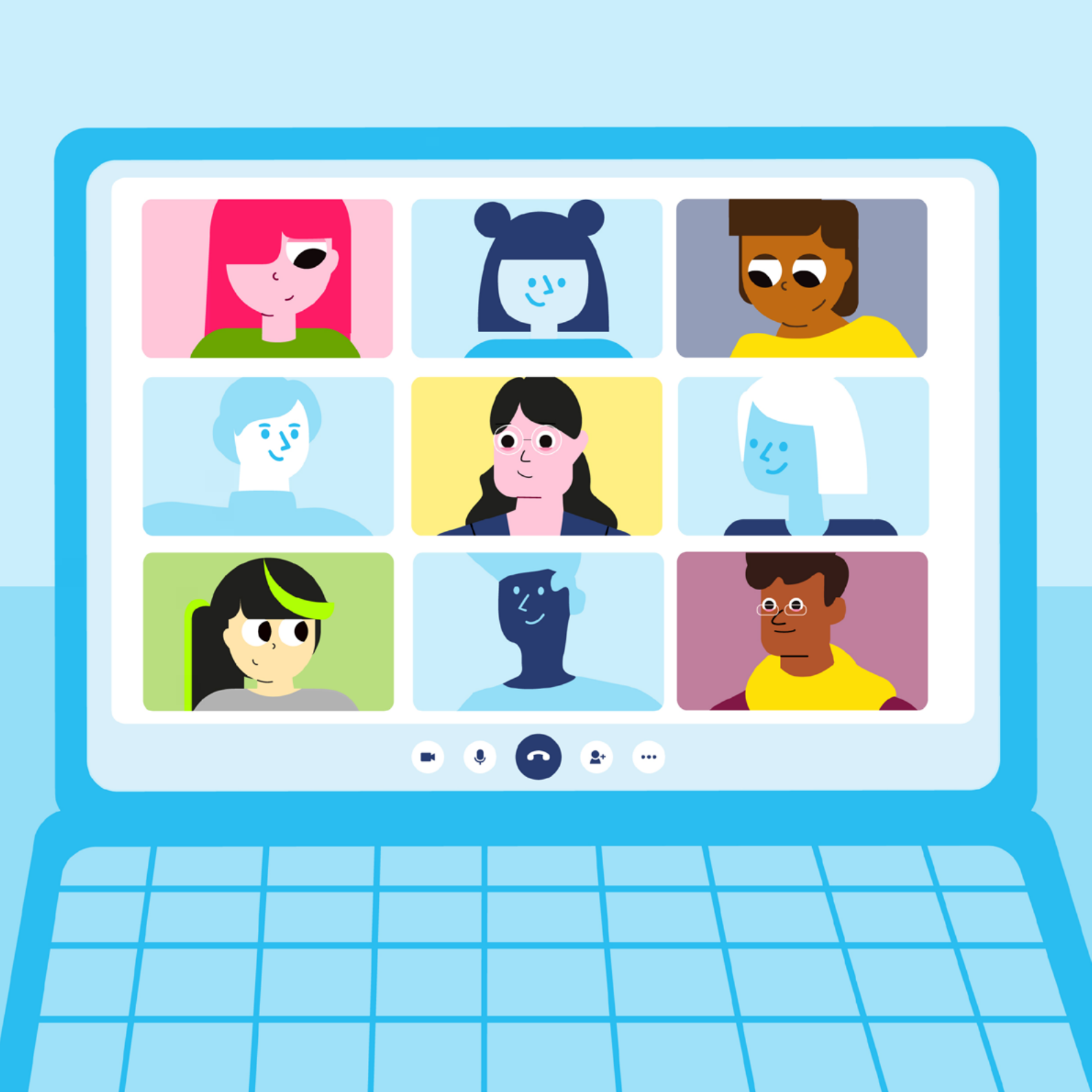
- to eat healthy
- to navigate healthy through life
- to cope with stress
- to have a healthy approach to fitness

... and to become health literate and live a healthier life.

05

05 | CONCLUSION

WAYS TO INCREASE DIGITAL HEALTH LITERACY



CONCLUSION

KEY FACTS

1. A significant proportion of students and teachers have a low digital health literacy.
2. The higher the digital health literacy of teachers, the more often they indicate that content on digital health literacy would be taught at their school.
3. Digital health literacy is lower when the family affluence of the students is lower.
4. To strengthen digital health literacy at school, teachers must be trained in digital health literacy in order to be equipped, empowered, and experienced to promote digital health literacy of students.
5. To promote digital health literacy at schools, it is recommended to combine digital health literacy with digital, information and media literacy.
6. A high level of digital health literacy in students and teachers is linked to better health outcomes.

DURCHBLICKT! strengthens digital health literacy at schools

With the prevention program, DURCHBLICKT! BARMER is making an important contribution to improving the digital health literacy of students, teachers and parents. We provide impetus so that children and young people grow up healthy. Both health literacy and digital health literacy are an important prerequisite for better health and wellbeing.

Teachers with high digital health literacy are more likely to teach the relevant (digital) health literacy topics at their school. Students with higher digital health literacy as well more frequently report that they would learn about these topics at school. A health literate school lays the foundation for a health literate society.

A health literate school lays the foundation for a health literate society

DURCHBLICKT! provides free continuing education and training opportunities for teachers, as well as ready-to-use teaching materials that can be used at school and in classrooms. Students will find an extensive range of information on the web portal DURCHBLICK! with exciting and interactive materials. Parents also have the opportunity to access information and learn the basics of digital health literacy through webinars.

DURCHBLICKT! Digitally into a healthy future.

www.durch-blickt.de

DIGITAL HEALTH LITERACY IN SCHOOLS. STUDY REPORT 2023

DURCHBLICKT!
Digital in eine gesunde Zukunft.

Technische Universität München

Hochschule Fulda
University of Applied Sciences