

Germany

Theresa Schlitter
 Ruben Kleinkorres
 Rahim Schaufelberger
 Ulrich Ludewig
 Ramona Lorenz
 Matthias Trendtel
 Nele McElvany

Center for Research on Education and School Development, TU Dortmund University

Introduction

Overview of Education System

Germany is organized into 16 federal states, each of which has a ministry or senate that has supreme legislative and administrative authority over education policy. As a result, there is variation among the federal education systems. However, there is a national consortium (Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany [KMK]), in which all education ministers or senators are represented and which adopts binding resolutions and frameworks.

The German education system consists of five major education sectors: preprimary, primary, lower secondary, upper secondary, and tertiary. Each education sector, in turn, comprises different educational institutions and/or programs. The majority of educational institutions in each sector are publicly funded. However, there are also private educational institutions, particularly in the preprimary and tertiary sector. The official language of instruction in Germany is German (with exceptions for five recognized national minorities: Danish minority group, Frisian ethnic group, the German Sinti, the German Roma, and the Sorbian people).¹

Preprimary education involves child daycare (*Kindertagesstätte, Tagespflege*) and Kindergarten. While child daycare generally caters to children ages 4 months to 3 years, Kindergarten caters to children ages 3 to 6. They are publicly subsidized (but often charge substantial fees) and are run by private or local institutions or churches. In Germany, preprimary education is voluntary, but as of August 1, 2013, all children ages 1 to 3 have a legal right to attend a daycare center or similar facility. Families who do not use a daycare center can apply for a childcare allowance.² Furthermore, every child from the age of 3 until school enrollment has a general right to attend Kindergarten.³ Recently, the KMK adopted a revised, nationally binding framework for basic education principles in the preprimary sector, which, among other things,

defines national goals in the areas of language, reading, and writing.⁴ This agreement is shaped further by the preprimary education curricula of the federal states.

Primary education in Germany involves *Grundschule* (elementary school), which is the first compulsory educational institution. Students turning 6 by a certain date are required legally to enter school.⁵ However, school enrollment dates may be brought forward or postponed in individual cases, and the degree of obligation varies between federal states.^{6,7} In most states, primary schools cover Grades 1 to 4 (ages 6 to 10). Only in Berlin and Brandenburg can students attend primary school up to sixth grade (age 12).⁸ Most students are enrolled in state-sponsored public primary schools (in 2018, this was true for 96.4 percent of students). Only 3.6 percent (in 2018) of students started general education in private primary schools.⁹ There are clearly defined national education standards for the school subject German in the areas of speaking, listening, reading, and writing, which have recently been updated.¹⁰ At the end of primary school, teachers recommend students for a suitable school type (*Schullaufbahneempfehlung*); however, this recommendation is not binding in the majority of the federal states (13 of 16).^{11,12}

Secondary education starts with fifth grade (seventh grade in Berlin and Brandenburg) and lasts between five and nine years (four to seven years in Berlin and Brandenburg) or until the age of 18 (depending on the federal state).¹³ It usually ends with a graduation certificate. The goal of lower secondary education is the acquisition of the graduation certificates *Hauptschulabschluss* (main school graduation) or *Mittlerer Schulabschluss* (Intermediate maturity) and upper secondary education at *Allgemeine Hochschulreife* (general university entrance qualification) or *Fachhochschulreife* (maturity for domain-specific tertiary education). The only secondary school type that is present in all federal states is Gymnasium. It covers lower and upper secondary school (grades up to 12 or 13) and is dedicated to the attainment of the *Allgemeine Hochschulreife*. Besides Gymnasium, there is a great variety of school types across federal states. With few exceptions, all school types offer the opportunity to acquire *Mittlerer Schulabschluss* after tenth grade. *Mittlerer Schulabschluss* qualifies for vocational training or upper secondary education (e.g., Gymnasium, *Fachoberschule*). Some states have schools with lower and upper secondary education with different courses of education (e.g., integrated comprehensive school, or *integrierte Gesamtschulen*), which provide *Allgemeine Hochschulreife*, *Mittlerer Schulabschluss*, or *Hauptschulabschluss*. In individual cases, transitioning between secondary school types without graduation certificates is possible. In addition, students may repeat a class on a case-by-case basis if they do not meet academic standards. Students with diagnosed special education needs may attend primary and lower secondary school in a special education school (*Förderschule*) if attendance at a general school is not possible or desired.

Use and Impact of PIRLS

Germany has participated in PIRLS since the first study cycle in 2001, thus, for the fifth time in 2021. Participation in PIRLS is part of the systematic overall governmental education monitoring strategy, which goes back to a joint resolution of the federal states in the KMK. Four key activity areas were identified as part of the monitoring strategy: (1) participation in national and international comparative education studies, (2) implementation of national education standards and their evaluation, (3) implementation of quality assurance procedures at the school level, and (4) continual education reporting.¹⁴ Germany's participation in PIRLS as well as in other large-scale assessment studies in the field of education promotes evidence-based government regulation of the education system as well as evidence-based instructional practice in schools. Thus, there is a strong emphasis on evidence-based decision making and practice, which has led to the introduction of several professorships dedicated to empirical education research in Germany.¹⁵

German schools participating in PIRLS receive a summary of their grade-level reading achievement results, which they can use for school development purposes. At the national level, PIRLS results are part of the education report and thus find their way into education policy decision making processes.

The Language/Reading Curriculum in Primary Grades

Teaching reading is one major aspect of instruction. All states refer to the national education standards (*Bildungsstandards*) in reading, implemented by the KMK. However, each federal state has its own curriculum for reading literacy acquisition for fourth grade students. The national education standards for primary school were established by a resolution of the KMK in 2004, and were revised and updated in June 2022 with a focus on strengthening not only the orientation function in terms of more specific wording and consistency across grades, but also consideration of digitalization in education. They are the binding framework for all federal curricula. For primary school, they are provided for the subjects of German and mathematics. The 2004 version, which was applicable for the time of data collection in PIRLS 2021, provides guidance on education standards and competency expectations in the various competency areas. For German, these are (1) Speaking and Listening, (2) Writing, (3) Reading—Dealing with Texts and Media, and (4) Language and Inspection of Language Use.¹⁶ In the updated version from 2022, these competency areas are distinguished further, with their interlocking content areas emphasized.¹⁷

The following paragraphs provide only an overview of the version of national education standards from 2004 as they apply to PIRLS 2021. In general, the KMK considers reading as an intrinsic active process to construct meaning. Students should develop not only the ability to read but also motivation toward reading during primary school. Students should be able to read both reasonably and critically. Another learning objective is that students should be able to handle different types of texts (e.g., narrative, informative) in different media.¹⁸ Specifically, the reading

competency area (3) comprises four different areas of focus: (3a) having reading abilities, (3b) having diverse reading experiences, (3c) being able to make sense of a text, and (3d) being able to present texts. Within these focus areas, the education standards specify concrete competency facets students should have acquired by the end of primary school. The following competency facets belong to reading competency area 3c and are mentioned as examples: students should be able to find information and/or central statements; they should be able to prove them with information they find in the text; and, they should be able to reproduce the story in their own words or find similarities and differences between texts. Empathizing with the feelings and thoughts of the characters described in the text is another facet.¹⁹ The national education standards indicate that by the end of fourth grade, students should be able to consider different types of text in different media, such as print or digital media. This includes using digital media (devices) for information research, preparation, and presentation of (own) texts.

The national education standards are implemented thoroughly in regional curricula. The Institute for Educational Quality Improvement (IQB) regularly monitors the extent to which the national education standards in Germany are achieved.²⁰ Teachers should demonstrate the achievement of these standards but are free to choose teaching methods and materials. Therefore, the standards contain only examples of tasks.²¹ Most regional curricula include a separate section for reading curricula in fourth grade and expected competencies for the end of fourth grade. Furthermore, they often address individual needs in the learning process of students and/or special needs for students who are learning German as a foreign language. Exhibit 1 provides an overview of the Reading—Dealing with Texts and Media competency expectations for North Rhine-Westphalia.²² This federal state is reasonably representative of the curricula of the 16 federal states²³ and, as the biggest federal state in Germany, serves as an example for federal state (regional) reading curriculum. However, it is not generalizable for all federal states in Germany since the reading curricula of federal states vary. Schools often create their own additional curricula (for reading) to achieve a common standard for teaching methods and materials within the school.²⁴

Exhibit 1: Reading Section of National Curriculum for North Rhine-Westphalia²⁵

Competency Expectations at the End of Grade 2 (the end of the flexible school entry phase)	Competency Expectations at the End of Grade 4
Focus: Reading Abilities	
<ul style="list-style-type: none"> ▪ Read short written tasks and instructions and act accordingly ▪ Read short age-appropriate texts and answer text-related questions ▪ Choose texts for individual reading from reading chests, or class or school libraries 	<ul style="list-style-type: none"> ▪ Understand written work instructions and act accordingly independently ▪ Find specific information in texts and repeat it ▪ Choose texts related to their interests and justify their decision

Competency Expectations at the End of Grade 2 (the end of the flexible school entry phase)	Competency Expectations at the End of Grade 4
Focus: Reading Experiences	
<ul style="list-style-type: none"> Choose books and other text-based media related to their interests (from class, school, or public libraries) 	
<ul style="list-style-type: none"> Read different texts (e.g., poems, stories, informational texts) 	<ul style="list-style-type: none"> Know and differentiate narrative texts, lyric texts, and scenic texts, and talk about their effect Comprehend narrative and functional texts (e.g., lexicon article) as well as discontinuous texts (e.g., tables or graphs)
<ul style="list-style-type: none"> Read age-appropriate children's books and talk about their reading impressions 	<ul style="list-style-type: none"> Name opus, authors, figures, and actions from children's literature Describe their own reading experiences (e.g., presenting children's books, keeping a diary)
Focus: Understanding Texts/Using Reading Strategies	
<ul style="list-style-type: none"> Formulate reading expectations (e.g., by using illustrations, signal words, or headlines) 	<ul style="list-style-type: none"> Use strategies to orient themselves in a text (e.g., detailed or selective strategies or text skimming) Gather key points from texts and repeat them in summary (e.g., as a keyword note, table of contents, sketch, graphic) Justify statements with text passages Use comprehension tools in case of comprehension difficulties: asking, looking up word, dissecting a text Formulate their own thoughts, understanding images or conclusions to texts, and exchange ideas with others
<ul style="list-style-type: none"> Express thoughts and feelings toward texts 	<ul style="list-style-type: none"> Detect differences and similarities of texts
<ul style="list-style-type: none"> Remodel simple texts (e.g., change the end of a story) 	<ul style="list-style-type: none"> Permute texts (e.g., illustrating, making collages)
Focus: Presenting Texts	
<ul style="list-style-type: none"> Perform short texts from memory (e.g., poems) 	<ul style="list-style-type: none"> Create speaking and performing texts (also) from memory (e.g., stories, dialogues, poems, scenes)
<ul style="list-style-type: none"> Read aloud known short texts 	<ul style="list-style-type: none"> Present children's books and justify their choice
<ul style="list-style-type: none"> Take part in performances (e.g., hand or rod puppet show) 	<ul style="list-style-type: none"> Take part in performances and readings
Focus: Dealing with Media	
<ul style="list-style-type: none"> Search for information in print and/or electronic media with guidance 	<ul style="list-style-type: none"> Investigate topics and tasks in print and electronic media (e.g., in child lexica, informational books, search engines for children)
<ul style="list-style-type: none"> Use media as stimulus for speaking, writing, and reading 	<ul style="list-style-type: none"> Use offers in newspapers and magazines, on radio and television, in audio and video media, and on the internet, and select them with good reason Use media to create their own media contributions
<ul style="list-style-type: none"> Discuss with others reading motives and texts as well as individual media experiences 	<ul style="list-style-type: none"> Compare different effects of text, film/video, or audio clips Evaluate media contributions critically (e.g., by differentiating and distinguishing information and advertising contributions)

Additionally, the federal states have introduced and updated their reading curricula at different times within the last few years. For example, in North Rhine-Westphalia, a newly revised curriculum went into effect on August 1, 2021, but due to the COVID-19 pandemic putting a strain on the German education system, it will not be implemented until all students are enrolled for academic year 2022–2023. Another change in the curriculum of North Rhine-Westphalia from 2008 is additional competency expectations in reading such as the inclusion of the expectation to “read texts using cooperative techniques” (e.g., reading aloud in tandem).

Professional Development Requirements and Programs

The official policy for professional teacher education is made at the federal state level. In general, teacher education and professional development is divided into three phases: university training, a one- to two-year supervised internship (depending on the federal state), and professional development in lifelong learning.

The third phase is the longest and refers to practicing teachers continuing their education and training throughout their career, which fulfills the goal of ongoing individual professional development. In most federal states, teachers become civil servants. There are no nationwide mandatory special programs or trainings in reading or language instruction, nor are there any specific time requirements. Most federal states specify that professional development should take place during times when the teacher isn’t in school and should be conducive to maintaining teaching ability. In each federal state, different centers for teacher education and school development support offer different programs and in-service trainings.²⁶ In addition, private institutions or foundations also offer different in-service trainings or courses. It is the teacher’s individual responsibility to participate in and select adequate in-service trainings. Primary school teachers often attend in-service trainings with a thematic focus on didactical aspects or supporting weaker students.²⁷ There is no statewide mandatory program for primary school teachers (regarding reading). Broader initiatives are driven by (state-funded) research projects that develop, evaluate, and/or implement reading promotion and accompanying structured training programs. Some programs are implemented across the primary school years in several federal states (e.g., Nobody Left Behind, Reading Makes You Strong is conceptually embedded in Lower Saxony and Rhineland-Palatinate).²⁸

The requirements for becoming a school principal in Germany vary by federal state. In general, a fully completed professional teacher education for the respective type of school as well as teaching and management experiences are required. As one example, in North Rhine-Westphalia, the federal state with the highest population, school principal applicants must complete a certified qualification extension (*Schulleitungsqualifizierung*, or SLQ) before taking office. This includes principal coaching, the aptitude assessment procedure (*Eignungsfeststellungsverfahren*), and the leadership qualification (*Leitungsqualifizierung*). However, the requirements of the federal states

have changed in the last decade. To stick with the example of North Rhine-Westphalia, this policy for principals also has applied to primary school education since 2016. Before that, it was only compulsory for secondary school education, which itself was implemented in 2009.

Within the last decade, the federal states have implemented various programs to qualify and promote teachers who became teachers by cross-entry or lateral entry (without a first degree in teaching). The programs and requirements vary by federal state. In 2013, the KMK declared that the federal states must establish structures to mitigate the teacher shortage in Germany, e.g., by supporting cross-entries or lateral entries.²⁹ In 2020, about 10 percent of all newly hired teachers have been side-entrants. These are teaching persons with neither a first or second state examination nor preparatory training service in the teaching profession in teaching. They must acquire appropriate certificates and in-service trainings. In contrast, teachers from the group of lateral entries are those who achieved a university degree in teaching (first state examination) in at least two subjects and are therefore permitted to achieve the second state examination and pass the preparatory training service.³⁰

Monitoring Student Progress in Reading

National Assessments

The overarching national education monitoring strategy foresees participation in international education comparison studies and monitoring of the achievement of education standards at the national level.³¹ Accordingly, participation in regular cycles of national and international comparative assessment studies is one of its basic elements. For the evaluation of the German education system, assessments that target different groups of students and domains are considered. Participation in PIRLS is designated for the domain of reading at the end of primary school. Educational achievement of 15-year-old students is evaluated in the domains of reading, mathematics, and science within the Programme for International Student Assessment (PISA). To monitor the implementation of the education standards in each federal state in Germany, the IQB has been commissioned by the KMK since 2008 to examine the various school tracks and domains. These surveys are complemented by surveys at the state level, for example (comparative) learning level surveys (e.g., VERA), language level measurements, or state-specific comparative studies (e.g., KERMIT). In contrast to PIRLS or Trends in International Mathematics and Science Study (TIMSS), these studies aim to draw conclusions for school and instructional development and thus for quality assurance at the school level.³²

The Use of School Grading and School Reports

Each federal state in Germany declares its own legal requirements within the framework of the school laws, some of which are parallel across all 16 federal states. The earliest grading in primary school starts in the second semester of second grade in some federal states, but this policy varies.

In most federal states, grading starts in third grade and uses written achievement records for earlier grades. Classroom tests serve as a source of information for monitoring and documenting students' learning and performance development. The grades range from 1—very good to 6—insufficient. At the end of each semester, students receive an individual report card. They also receive final report cards at the end of fourth grade in primary school and at the end of the chosen secondary school track. As an example, North Rhine-Westphalia requires teachers to conduct classroom tests in Grades 3 and 4 in the subjects German, mathematics, and English.³³ Any other written, verbal, or practical performance by students may be used to document the learning progress. The teacher must inform the students about the assessment criteria, which follow the subject-specific curriculum of the federal state, prior to an achievement test. The teacher designs the test tasks.³⁴

Special Reading Initiatives

Following publication of the results of the first PISA cycle in 2000, different initiatives and trainings around reading were implemented. In Germany, apart from the education standards, there is no nationwide mandatory reading promotion program. One nationwide initiative was Education through Language and Writing (BiSS). It comprised a combination of top-down implemented teacher education and bottom-up reading and language promotion created by participating schools. The goal was to provide appropriate support to every student. A scientific evaluation of this initiative did not find overall effectiveness regarding reading competency in primary school.³⁵ Based on BiSS, the federal and statewide initiative Education through Language and Writing—Transfer (BiSS-Transfer) offers schools and other educational institutions the opportunity to participate in a research-led program to promote the reading and writing skills in children from Kindergarten until the end of compulsory schooling. About 90 education networks consisting of Kindergartens and schools are working together to implement scientifically based concepts for language literacy development in education practice from 2020 to 2025.³⁶ Other well-known reading promotion activities carried out by federal centers for education include the concept of reading mentors who support students through reading time spent together.³⁷ The Nobody Left Behind program was first implemented in Schleswig-Holstein in 2006. Several expansions for different domains and school tracks followed. In academic year 2013–2014, the expansion Nobody Left Behind—Reading Makes You Strong! Primary School was introduced in 100 primary schools in Schleswig-Holstein and has since been rolled out in Lower Saxony as well. The program has been scientifically monitored and evaluated. The aim of this program is the early identification of students with problems in literary written language, reading, and writing and subsequently the derivation of strategies for individual support, teaching, and parental involvement.³⁸ Another exemplary program is Performance Makes School!, which aims to promote high-achieving students in primary and secondary schools and is implemented in several federal states in Germany (e.g., Hesse). Teachers and school principals receive support from

researchers, who conducted the scientific monitoring and evaluation research, to establish strong structures in teaching and diagnostics to support these students. Three hundred participating schools are working together as school networks to multiply the concepts. The program was launched in 2018 and will run until 2028.^{39,40}

Response to COVID-19 Pandemic

Teaching and Learning During the COVID-19 Pandemic

On March 28, 2020, Germany declared the COVID-19 outbreak to have pandemic status of national significance. By resolution of the German Bundestag, this special status ended on November 25, 2021. The national government and federal states worked together to compile, structure, and parallelize the implementation of pandemic countermeasures based on the German Infection Protection Act. Furthermore, regional adaptations of these measures were introduced, as pandemic occurrences varied significantly by region. For some population groups, special countermeasures and rules were implemented as well.⁴¹ In Germany, the COVID-19 pandemic required two school closures for all school types. On March 16, 2020, the first school closure was implemented, and classes were moved to distance learning until the Easter vacations. The second school closure took place from late 2020 to January 31, 2021.⁴² The detailed organizational design was the responsibility of the local health departments or public order offices in coordination with the federal state government. In allowing the choice of the form of instruction, an attempt was made to resolve the conflict between the protection of physical integrity and the right to education in the best possible way.⁴³ During academic years 2019–2020 and 2020–2021, the form of education changed, depending on the local pandemic situation, to different arrangements of hybrid or restricted instruction (distance instruction, alternating presence instruction, face-to-face instruction) through gradual school openings. Hybrid instruction means partial school attendance on single days by half classes. It should be noted that the fourth grade is the first graduating class in Germany. After completing fourth grade, students move on to secondary school in most federal states in Germany. This is a crucial time for further educational development and therefore has a special significance for students. The KMK has passed a state resolution to return to face-to-face instruction for graduating classes.⁴⁴ However, between April 24, 2021, and June 30, 2021, the national emergency brake act required school closures when the local 7-days-incidence exceeded 165 per 100,000 people.⁴⁵

In Germany, (short-term) distance learning or hybrid learning has been and continues to be challenging for all parties involved, for instance, regarding the rapid acquisition of technical equipment at home or the didactic redesign of lessons.⁴⁶ The amplification of existing education inequality in Germany was a concern when considering the consequences of school closures and hybrid teaching. Furthermore, schools located in socially challenging areas had to go into adapted regular teaching mode more often than schools in more advantageous areas, for instance, due to

an intensified pandemic situation.⁴⁷ Studies found evidence of an increase in parental stress, which was more common in disadvantaged areas, that affected students' motivation and emotions, without clarity on what this meant for their learning outcome and educational success.^{48,49,50} Teachers were satisfied with their job on average whereby support from colleagues was particularly positively related to job satisfaction.⁵¹ Schools supported their students by providing technical materials (e.g., tablets), and hygiene and other protective materials, if available, in addition to day-to-day instruction. Furthermore, different government measures should strengthen digitalization in Germany (technical equipment, learning platforms, broadband connection for every school, etc.), and the implementation and expansion of learning support measures for disadvantaged groups of students should be supported with emergency financial aid.⁵²

Impact of the Pandemic on Student Learning

The implementation of new forms of instruction has been supported by a government framework and by cloud platforms for online learning and instruction. In May 2021, the government announced an initiative to tackle the negative effects of COVID-19 on learning or education in general. First empirical findings could show evidence of lower reading achievement in the fourth grade.⁵³ Two billion euros will be used to create (extra-)curricular support measures, divided into the areas of reducing learning gaps, measures to promote early childhood education, support for vacation camps and extracurricular activities, as well as everyday life support and school accompaniment of students with regard to their psychosocial needs. The design and implementation are the responsibility of the federal states and their educational institutions. There is no nationwide focus on fourth grade students.⁵⁴

Policy and Practice Changes

There have been a few official fundamental and sustainable changes in education policy or practice for post-COVID-19 pandemic times. The federal government provided financial "Corona Aids" for families, companies, and their employees. Families received tax breaks of three one-time payments totaling about 450 euros in 2020 and 2021.^{55,56} Since October 2020, sponsors of public buildings, such as schools, have been able to apply for financial support for the conversion or retrofitting of an adequate stationary air conditioning system.⁵⁷ Furthermore, in 2019, the government decreed the Digital Pact for Schools, which was accelerated due to the COVID-19 pandemic (technical equipment, learning platforms, broadband connection for every school, etc.).⁵⁸ The government and a major media provider agreed on a special contract for a discounted so-called education flat rate (*Bildungs-Flatrate*) for students via their educational institutions with the condition that it will be used for education purposes only.⁵⁹

Suggested Readings

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