

SUSTAINABLE DEVELOPMENT GOALS IN TEACHER TRAINING – AN AUSTRIAN CASE STUDY

Florentine Paudel

University College of Teacher Education Vienna, Grenzackerstraße 18, 1100 Vienna, Austria

Abstract

Due to the educational policy goals, which have been given an internationally binding framework by the UN Action Plan Agenda 2030, the university colleges of teacher education in Austria are also under pressure to take these developments into account in their development process. The curricula of the teacher trainings are to be adapted to fulfill the guidelines of educational policy, which includes ensuring the acquisition of basic skills such as reading, writing, and arithmetic. In this context, the question arises as to how the topic of reading is currently anchored in the curricula of teacher training in Austria. A descriptive evaluation was carried out with the help of a document analysis (curricula of the bachelor's degree courses for obtaining the primary level teaching degree) to evaluate the current status of the higher education development process in this context. All curricula for teaching at the primary level of the university colleges of teacher education in Austria (n=10) were therefore used. In general, it can be stated that the topic of reading is anchored in different ways in the curricula. As a recommendation, the development of evaluation instruments would be important to be able to take further quality assurance measures. This study provides valuable insights into the current status of the higher education development process regarding the educational policy goals of the UN Agenda 2030 action plan.

Keywords: *Teacher training, Ensuring basic skills, Sustainable Development Goals, Curriculum analysis, Improvements*

1. INTRODUCTION

National education policies are increasingly regulated by international agendas, for example, the Agenda 2030 for Sustainable Development (United Nations General Assembly, 2015; UNESCO, 2016), which has also found its way into the target and performance plans of the university colleges of teacher education in Austria (BMBWF, 2021 a). There it refers to ensuring the acquisition of the basic skills of reading, writing and arithmetic, which can be found in the Sustainable Development Goals “4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy” (United Nations General Assembly, 2015, p. 21). Furthermore, it is written that with sustainable educational concepts, the university colleges of teacher education make an active contribution to the implementation of the SDGs. Linked to this is the conscious integration of the SDGs

- "in their further development towards recognized expert organizations in the field of teacher training and school development advice,
- in the differentiated profile formation with priority settings and
- in the fulfillment of their tasks (teaching in training as well as further education, research, school development advice, and university administration)” (BMBWF, 2021, p. 6).

International agendas influence university colleges' development and the associated curricular developments. Furthermore, the associated measures are associated with quality assurance. This raises the question of whether these have already been considered in earlier university colleges developments in connection with SDG 4.6 since the area of basic skills can be seen as particularly important in the context of teacher training and the responsibility for the training of primary school teachers in Austria is in these institutions.

Furthermore, the evaluation respectively the implementation of ensuring basic skills can be considered important because from a national perspective there seems to be an urgent need in Austria. Here you

can have a look at the national education report Austria (BMBWF, 2021b), which refers to the national educational standards survey in 2015, in which pupils in the 4th grade of primary school were tested. Educational standards in Austria define which competencies pupils should generally have by the end of the respective school level. The educational standard surveys fulfill the task of recording and depicting the current state of actually acquired competencies (Neubacher et al., 2019). It was shown that 13% of the pupils did not achieve the educational standards and 25% partially met the educational standards. These pupils have elementary reading skills at word and sentence levels (BMBWF, 2021b, pp. 481).

In 2016 the national educational standard survey, pupils in the 8th grade (secondary level I) were tested, among other things, in reading. It was found that 17% of the students did not meet the educational standards. 28% of the pupils have partially achieved the educational standards. These students understand, for example, age-appropriate literary and pragmatic short texts (BMBWF, 2021b, pp. 482).

If you now look at international studies such as PISA (PISA, 2015; Bruneforth and Höller, 2019), it becomes apparent that around a fifth to a quarter of the students belong to the risk group. Pupils who are assigned to the reading risk group show serious deficiencies in reading comprehension.

PISA	Percentage of risk group
2000	20%
2003	20%
2006	22%
2009	28%
2012	20%
2015	23%
2018	24%

Table 1: Results of the PISA surveys at a glance (BMBWF, 2021b, p. 485)

This abridged representation of statistical parameters, which were carried out over a constant time, shows the importance of the topic and thus the relevance of ensuring basic skills for prospective teachers even in teacher training appoint teachers.

Even if the importance of the topic is shown by the statistical parameters, there is little national focus on this topic in the binding implementation of the SDGs and further development processes. In the handout on the target and performance plan of the university colleges of teacher education for the period 2022 to 2024 (BMBWF 2021a), it is mentioned, but it is up to the university colleges if they take them into account. In the voluntary national report on the implementation of the Sustainable Development Goals (Austrian Federal Chancellery, 2020), these three goals are generally mentioned:

- digitization
- Women, youth and 'leaving no one behind'
- Climate action and adaptation to climate change (Austrian Federal Chancellery, 2020, p. 10).

The second goal is more focused on institutionally safeguarding in Austria. Further, it means that young people are more involved in decision-making and participatory processes concerning the SDGs. One point regarding education is mentioned in the context of "Education until 18 for all". "The Federal Government has consistently implemented the SDG principle of 'leaving no one behind' for young people with compulsory education and training up to the age of 18. The education until 18 initiative offers young people who have completed compulsory schooling the opportunity to obtain a higher qualification on an individual basis by giving targeted advice and cooperation with various stakeholders.

This increases the individual's chances of finding a good job and the overall educational and employment level of the Austrian population. The measure also aims to achieve equality between women and men" (Austrian Federal Chancellery, 2020, p.46). It remains to be seen whether this is aimed at ensuring basic skills.

Concerning the evaluation of the national action plan for the implementation of the UN Convention on the Right of Persons with Disabilities (UNCRPD) (BMSGPK, 2020), a discrepancy between the plans listed here and the actual reality can be identified. There, the unequal educational opportunities of children with disabilities and a lack of or unsuitable offers after the end of compulsory schooling or insufficient paths from the school sector to education and employment are mentioned (BMSGPK, 2020, p. 26). This report still shows an inequality in this group of people, which is not taken into account ensuring basic skills - also about the statistical indicators that were opened earlier. This raises the question of how the topic opens up in teacher training and whether approaches to evaluation respectively implementation can be located there.

In the context of German-speaking countries, events and publications on the implementation of social sustainability goals can also be found in the context of teacher training (e.g., Bliesner, Liedtke and Rohn, 2013; Bedhäsing and Padberg, 2017; Rieckmann, 2018; Hochschule für Agrar- und Umweltpädagogik, 2020). In this work, the focus is strongly on the implementation of social sustainability goals. The associated possible influence on university (college) development and quality assurance measures is not discussed there and represents a gap in this topic.

Furthermore, this study is part of the international field of research on the evaluation and implementation of social sustainability goals in teacher education (e.g., Summers, Corney and Childs, 2004; Boon, 2016; Chisingui and Costa, 2020) and makes it possible to make the topic visible in an international context and to present results for the national context for Austria.

1.1 Purpose of the study

As part of the setting of priorities in the training, further development of the courses and curricula in the sense of current, educational policy takes a focus. The curricula of the training are to be adapted to the new curricula and along the guidelines of educational policy, in which the securing of basic skills within the framework of the target and performance plans of the university colleges of teacher education are mentioned. The focus should be on the following topics:

- "Competency-oriented teaching including the use of competency grids
- Promotion of reading skills
- Diagnostic procedures for competence surveys (student competence measurements, large scale assessments, PISA, PIRLS, ...) and linking the results from competence surveys with the design of the lessons" (BMBWF, 2021a, p. 10)

In this context, the question arises as to how the topic of reading is currently anchored in the curricula of teacher training (with a focus on the primary level) throughout Austria and which possible adaptations or further evaluation measures can be considered meaningful based on these anchorings.

Therefore, the present research project aims to be able to give possible conclusions for recommendations for further adaptations or further development of the curricula of the teaching profession for the primary level by carrying out comparative research on the curricular anchoring of the subject area reading in the teacher training in Austria.

The research question is, therefore: How is the area of reading reflected in the curricula for teaching at the primary level in Austria?

2. MATERIALS AND METHODS

A descriptive evaluation (Kosfeld, Eckey and Türck, 2016) was carried out with the help of a document analysis (Hoffmann, 2018) (curricula of the bachelor's degree courses for obtaining the primary level teaching degree). The initial focus was to review the curricula of the different university colleges in Austria (n=10) and compare them to each other in a descriptive way. Therefore, all curricula for teaching at the primary level of the university colleges of teacher education in Austria (n=10) were used for further analysis.

As a first step, the general ECTS points for German, where reading is also integrated and those courses that may have a connection to reading were collected in one document.

Bachelor's degree in teaching primary school		
Basic Study		
General		
German	17 ECTS	
Courses	Terms	ECTS
Mindfulness and rule constructions in written language acquisition	1.	2
Mindfulness and rule constructions in written language acquisition	2.	3
German as a second language II: Basics of second language didactics and literacy in the second language	3.	1
Dealing with texts in developing reading skills	4.	1
Reflected and creative text reception and text production	5.	2
Pedagogical diagnostics, support and performance assessment	6.	2
Imaginative ways of dealing with reading and writing	7.	1
2nd pass		
Experience and dealing with language and language acquisition (Lecture and seminar)	1.-2.	5
	Gesamt	17

Table 2: General description of the subject German and the courses, which belongs to reading, from the university colleges of teacher education in Burgenland in Austria.

In a second step, those courses that did not have an explicit reference to the topic of reading in the title were compared again with the help of the course descriptions and, if necessary, included in the document.

The different priorities, such as inclusive education, were again evaluated similarly in connection with the focus on reading skills. The presentation of the results refers to these analysis steps and offers the first indications for recommendations for further higher education evaluation steps. Because of the focus on the ECTS Points, which gives an overview of the workload in the anchoring of the curricula, the study does not provide any indication of the quality of the coverage. This study is seen as a first step to getting an overview of the topic.

3. RESULTS

In general, it can be stated that the topic of reading is anchored in different ways in the curricula of the university colleges of teacher education (UCTE). The number of ECTS points varies in the basic course, which is completed for all prospective teachers. The narrow reading context (those courses that have an explicit reference to the topic in their description) is between 5-17 ECTS points.

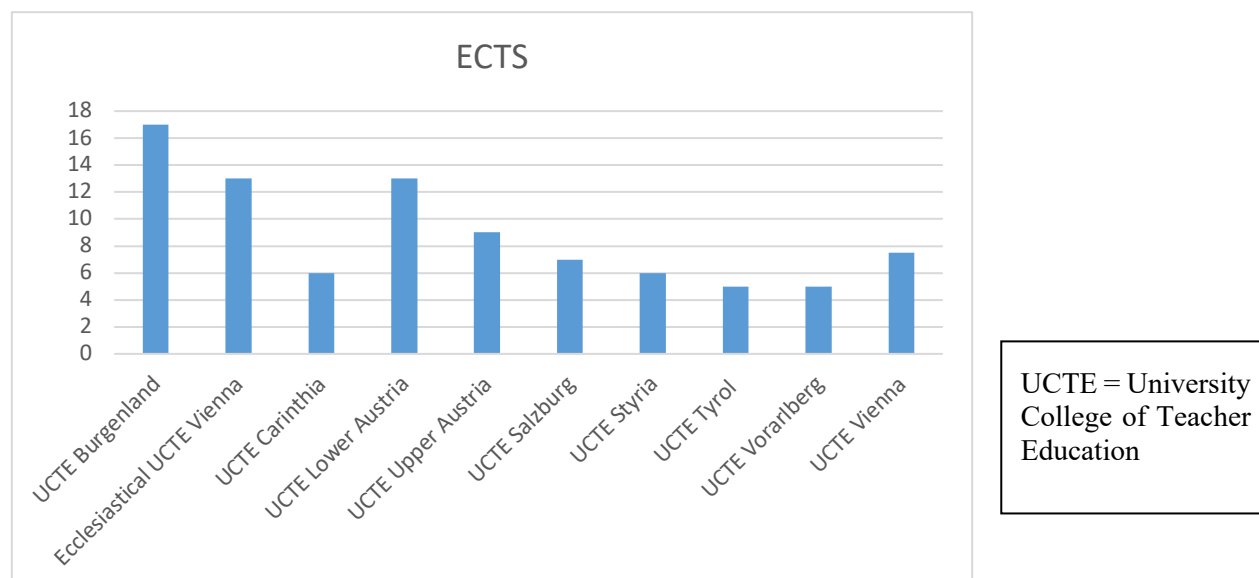


Figure 1: Overview of the curricular anchoring in ECTS in the narrow reading context

At the university colleges of teacher training in Austria, different specializations are offered, which in turn open different references to the main topic. The ECTS points in the area of reading and writing difficulties (which are also linked to Dyslexia) vary from 1.5-30 ECTS points. The term ‘reading/writing difficulties’ is used in the national educational context to express that these are pupils who have difficulties in reading and/or writing without any further distinction. This means that there is an explicit reference to the professional field of all primary school teachers, which focuses on the responsibility for taking reading and writing difficulties into account (BMBWF, 2020-0.580.909).

Here is an overview of the focus areas with ECTS points:

- Focus: Inclusion (2-4 ECTS credits)
 - UCTE Burgenland: 4 ECTS points with a focus on reading and writing difficulties
 - UCTE Carinthia: 4 ECTS points with a focus on reading and writing difficulties
 - UCTE Lower Austria: 4 ECTS points in the field of diagnostic action (support planning - reading, writing, arithmetic)
 - UCTE Salzburg: 4 ECTS points in terms of strategies to promote cultural techniques
 - UCTE Styria: 4 ECTS points with a focus on LRS
 - Ecclesiastical UCTE Vienna: 2 ECTS credits in the area of language-communicative impairments and written language acquisition
 - UCTE Vienna: 3.5 ECTS points in connection with German lessons
- Focus: language education (1.5 -13 ECTS points)
 - UCTE Upper Austria: 1.5 ECTS in the field of research in language education (content: basics and implementation of evidence-based reading and spelling lessons)

- UCTE Vienna: 7.5 ECTS points (diagnosis and support, teaching literature, poetry)
- UCTE Vienna: 13 ECTS points (literacy acquisition, reading and writing difficulties, children's, and young adult literature, reading didactics)
- Focus: coaching learning (17 ECTS points)
 - UCTE Lower Austria in the field of reading and writing difficulties (general basics, funding diagnosis, special basics of reading and writing, case studies)
- Focus: Encounter in reading and writing worlds (30 ECTS points)
 - UCTE Styria (psycho- and written-linguistic aspects of reading and spelling didactics, comprehensive concept of literacy, interaction between language and written language acquisition)
- Focus: German and multilingualism (7.5 - 15 ECTS points)
 - UCTE Burgenland: 7.5 ECTS and 4.5 ECTS points in the advanced module with a focus on multilingualism and intercultural education
 - UCTE Tyrol: 15 ECTS points (literacy acquisition, diagnostic instruments in the area of reading and spelling and derivation of support plans, reading lessons, "Family Literacy")
 - UCTE Vorarlberg: 15 ECTS points ("Family Literacy", observing and promoting written language learning, literature, and library didactics)
- Focus: Interdisciplinary research (4 ECTS credits)
 - UCTE Carinthia in the area of literary learning and reading-writing processes
- Focus: Media Education (3-10 ECTS points)
 - UCTE Burgenland (10 ECTS points) with a focus on media.didactics.competence (literacy acquisition with the use of digital and analogue media, reading and writing habits of the network generation, developing e-books for German lessons in elementary school)
 - UCTE Lower Austria (3 ECTS points) in the field of digital resources for German lessons (digital materials to promote reading and spelling skills)
 - UCTE Vienna (2.5 ECTS points) in the field of German lessons in primary school using digital media
- Focus: elementary education (1.5-3 ECTS points)
 - UCTE Burgenland: 3 ECTS points
 - UCTE Tyrol (early childhood education): 1.5 ECTS points for written language acquisition, reading and writing development

As a further anchoring, elective subjects are listed for individual consolidation, whereby 2 to 7 ECTS points are to be selected from these elective subjects.

Here is an overview of the teacher training colleges that offer this option:

- UCTE Carinthia: Regional specializations in the field of German (e.g., diagnostics and support, literature discussion)
- UCTE Salzburg: compulsory elective module: specialist science and didactics of reading (2 ECTS points each, including children's literature, reading diagnosis and promotion)
- UCTE Tyrol: compulsory elective module: children's and youth literature: multimedia and multilingual access

- Ecclesiastical UCTE Vienna: 4th semester, whereby 2 ECTS credits must be chosen in the area of technical and didactic electives.

The UCTE Vorarlberg lists as a cross-cutting topic: media skills, basic skills reading, arithmetic and writing and shows the modular anchoring of the topic according to this location.

The following recommendations can now be derived from this presentation of results.

4. DISCUSSION AND CONCLUSIONS

In the sense of the guidelines for dealing with reading and writing difficulties in the school context in Austria (BMBWF, 2020-0.580.909), every teacher is in the sense of the general support measures for

- "an early onset of symptom-specific promotion",
- and responsible for early identification.
- Furthermore, technical aids should be made available if necessary.

This means that there is an explicit reference to the professional field of all primary school teachers, which focuses on the responsibility for taking reading and writing difficulties into account.

Therefore, the question arises how many ECTS points do prospective teachers need in training to be able to take this area into account?

A reference can be made to the national handout on how to deal with reading and writing difficulties in school (Landerl and Haller, 2018):

It states that for teachers who implement support for reading and writing difficulties within the framework of differentiated general instruction, the scope of training should be set at a total of 10 ECTS points (250 hours). The main points of content can be given in connection with the handout by Landerl and Haller (2018) cited above, in which the main points and contents are listed:

- Written language acquisition (e.g., basics of linguistics, basic aspects of writing systems, didactics of written language acquisition, ...)
- Dyslexia (including typical symptoms, comorbid disorders, effects on development and life course, Dyslexia in children with a first language other than German)
- Formal framework conditions (legal foundations and network management)
- Diagnostics and support (e.g., reading screenings, evidence-based support programs, ...)
- Furthermore, the extended knowledge is also differentiated here for technical experts.

Based on these national requirements, there seems to be a need to clarify which guidelines the ECTS points are based on because of university developments. The comparison of the content mentioned by Landerl and Haller (2018) can be used as a recommendation for further university college development. The present study shows, for example, at the university college of teacher education Vienna that "Diagnostic procedures for competence surveys (student competence measurements, large scale assessments, PISA, PIRLS, ...) and linking the results from competence surveys with the design of the lessons" (BMBWF, 2021a, p. 10) were not considered in the curriculum and should therefore be considered urgently. Furthermore, it would be advisable to carry out student surveys as an evaluation instrument in connection with ensuring basic competence in reading, to be able to collect and evaluate the necessary professionalization process. The results could flow into current curricula developments.

As a further possibility to draw on thematic priorities in terms of the development of the curricula, a reference can be made to the reading competence profile for educators (BMBWF, 2022). Similar to the handout for dealing with reading and writing difficulties in schools (Landerl and Haller, 2018), a distinction is made between basic knowledge and subject-specific knowledge for experts. The main topics for all teachers are as follows:

- Basic knowledge (basic models for reading, reading and literary socialization, ...)
- Linguistic education and reading in all subjects/domains (development and promotion of text type and media-specific text reception, interdisciplinary teaching of working techniques and reading strategies, ...)
- Reading motivation and reading culture (concepts and models of sustainable reading motivation and reading animation, reading socialization, strengthening reading culture in schools, ...)

For a possible set of priorities, it would be important, in the sense of the training of specialists (BMBWF, 2020-0.580.909), as stated in the handout for dealing with reading and writing difficulties in schools (Landerl and Haller, 2018, p. 40), to expand the theoretical partly to the extent of at least 6 ECTS points, a supplementary literature study to the extent of 3 ECTS points, and a practical part to the extent of 6 ECTS points in combination with the pedagogical-practical studies.

Here, a reference can be given to the priorities that have already been set, in which further content on the subject area, depending on the focus, is conveyed. The focus on inclusion seems to be particularly important here since this topic is explicitly mentioned at some university colleges of teacher education and the training of the experts is therefore located there.

However, given the need for these experts (BMBWF, 2020-0.580.909), the question arises as to whether they are adequately prepared for the task at hand. Here, too, evaluations would be important to make adaptations in the curriculum or further education and training events in the interests of quality assurance.

On conclusion in connection with the acquisition of basic skills such as reading according to the Agenda 2030 for Sustainable Development that further analyses are recommended to find out how prepared future teachers are in this area to be able to implement corresponding adaptations in the curriculum. It is not clear from the results presented here whether this subject area is sufficiently taken into account at the various institutions. Due to the importance of the topic, also concerning the results of various evaluations in the school system (BMBWF, 2021b; PISA, 2015; Bruneforth and Höller, 2019), further evaluations and associated quality assurance measures would be important to meet international educational policy requirements.

REFERENCES

1. Austrian Federal Chancellery 2020, *Austria and the 2030 Agenda*, viewed 30 November 2022, https://sustainabledevelopment.un.org/content/documents/26512VNR_2020_Austria_Report_English.pdf.
2. Bedehäsing, J and Padberg, S 2017, Globale Krise, Große Transformation, Change Agents: Heiße Eisen für die Geographiedidaktik? [Global Crisis, Great Transformation, Change Agents: Hot topics for geography didactics?], *GW-Unterricht*, vol. 39, no. 146, pp. 19-31.
3. Bliesner, A, Liedtke, C and Rohn, H 2013, Change Agents für Nachhaltigkeit. Was müssen sie können?, *Führung + Organisation*, vol. 8, no. 1, pp. 49-53.
4. Boon, HJ 2016, Pre-service teachers and climate change: A stalemate?, *Australian Journal of Teacher Education*, vol. 41, no. 4, pp. 39– 63.
5. Bundesministerium für Bildung, Wissenschaft und Forschung (BMBWF) 2021, *Handreichung zum Ziel- und Leistungsplan der Pädagogischen Hochschulen für die Periode 2022 bis 2024* [Handout on the target and performance plan of the teacher training colleges for the period 2022 to 2024, viewed 30 November 2022, https://www.phwien.ac.at/files/VR_Lehre/Mitteilungsblatt/Ziff_2/Handreichung%20zum%20ZLP%202022-2024.pdf.

6. Bundesministerium Bildung, Wissenschaft und Forschung (BMBWF) 2021, *Nationaler Bildungsbericht Österreich 2021* [National education report Austria 2021], viewed 30 November 2022, <https://www.bmbwf.gv.at/dam/jcr:09d0d609-e889-447f-a9f0-47334cd67d89/nbb2021.pdf>.
7. Bundesministerium Bildung, Wissenschaft und Forschung (BMBWF) 2022, *Lesen – Kompetenzprofil für PädagogInnen und Pädagogen (LesenKompP)- In Kooperation mit der Koordinationsstelle Lesen* [Reading - Competence profile for educators (LesenKompP) - In cooperation with the reading coordination office.], viewed 30 November 2022, <https://mahara.phwien.ac.at/user/ksl/lesenkomp>.
8. Bundesministerium Bildung, Wissenschaft und Forschung (BMBWF), 2020-0.580.909, *Richtlinien für den Umgang mit Lese-/Rechtschreibschwierigkeiten (LRS) im schulischen Kontext* [Guidelines for dealing with reading and spelling difficulties in the school context]. Rundschreiben Nr. 24/2021, viewed 30 November 2022, <https://rundscreiben.bmbwf.gv.at/rundscreiben/?id=1029>.
9. Bundesministerium Soziales, Gesundheit, Pflege und Konsumentenschutz (BMSGPK) 2020, *Evaluierung des Nationalen Aktionsplans Behinderung 2012–2020* [Evaluation of the National Disability Action Plan 2012-2020], viewed 30 November 2022 <https://broschuerenservice.sozialministerium.at/home/Download?publicationId=750>.
10. Bruneforth, M and Höller, I 2019, Die Kompetenzen der österreichischen Schüler/innen im Zeitvergleich. In Suchan, B, Höller, I and & Wallner-Paschon, C (Ed.), *PISA 2018. Grundkompetenzen am Ende der Pflichtschulzeit im internationalen Vergleich* [PISA 2018. Basic skills at the end of compulsory schooling in an international comparison], Leykam, Graz, pp. 81-93. <http://doi.org/10.17888/pisa2018-eb>
11. Chisingui, AV and Costa, N 2020, Teacher Education and Sustainable Development Goals: A Case Study with Future Biology Teachers in an Angolan Higher Education Institution, *Sustainability* no. 12, vol. 8: 3344. DOI: 10.3390/su12083344
12. Hochschule für Agrar- und Umweltpädagogik (2020). *Abstractband zur LeNa-Tagung „Sustainable Development Goals und Lehrer*innenbildung“* [Abstract volume for the LeNa conference “Sustainable Development Goals and Teacher Training”], Hochschule für Agrar- und Umweltpädagogik und LeNa – Deutschsprachiges Netzwerk LehrerInnenbildung für eine Nachhaltige Entwicklung, viewed 30 November 2022, [Abstractband-zur-LeNa-Tagung.pdf](https://haup.ac.at/Abstractband-zur-LeNa-Tagung.pdf) (haup.ac.at).
13. Hoffmann, N 2018, *Dokumentenanalyse in der Bildungs- und Sozialforschung : Überblick und Einführung* [Document analysis in educational and social research: overview and introduction], Beltz Juventa, Weinheim und Basel.
14. Kirchliche Pädagogische Hochschule Wien/Krems 2019, *Curriculum. Bachelorstudium als Voraussetzung für ein Masterstudium zur Erlangung des Lehramtes Primarstufe* [Curriculum. A Bachelor's Degree as a requirement for a master's degree to obtain the teaching office primary]. Kirchlich Pädagogische Hochschule, Vienna, viewed 30 November 2022, https://kphvie.ac.at/fileadmin/Mitteilungsblatt/KPH-2022_MB_223_Curriculum_Bachelor_Primarstufe.pdf.
15. Kosfeld, R, Eckey, HF and Türck, M 2016, *Deskriptive Statistik: Grundlagen – Methoden – Beispiele – Aufgaben* [Descriptive Statistics: Basics - Methods - Examples – Tasks]. Springer Gabler, Wiesbaden.
16. Landerl, K and Haller, B 2018, *Der schulische Umgang mit der Lese-Rechtschreib-Schwäche. Eine Handreichung* [Dealing with dyslexia in school, a handout], Bundesministerium für Bildung, Wissenschaft und Forschung, Vienna.
17. Neubacher, M, Ober, M, Wimmer, C and Hartl, M 2019, Die Kompetenzen der Schüler/innen in der Zusammenschau aller Standardüberprüfungen des ersten Zyklus. In George, AC, Schreiner, C, Wiesner, C, Pointinger, M and Pacher, K (Ed.), *Fünf Jahre flächendeckende*

Bildungsstandardüberprüfungen in Österreich. Vertiefende Analysen zum Zyklus 2012 bis 2016, Waxmann, München, pp. 55–85.

18. Pädagogische Hochschule Burgenland 2019, *Bachelorstudium Lehramt Primarstufe. Curriculum PH Burgenland* [Bachelor's degree in primary school teaching. Curriculum of the university college of teacher education Burgenland], Pädagogische Hochschule Burgenland, Burgenland, viewed at 30 November 2022, https://www.ph-burgenland.at/fileadmin/user_upload/Studium/Bachelor_Primarstufe/Curriculum_Bachelor_Primar.pdf.
19. Pädagogische Hochschule Kärnten, Viktor Frankl Hochschule 2019, *Bachelorstudium Lehramt Primarstufe. Curriculum PH Kärnten* [Bachelor's degree in primary school teaching. Curriculum of the university college of teacher education Carinthia], Pädagogische Hochschule Kärnten, Kärnten, viewed 30 November 2022, https://www.ph-kaernten.ac.at/fileadmin/media/studienabteilung/curricula/Primarstufe/Curriculum_Bachelor_Primar_PHK_Juni2019.pdf.
20. Pädagogische Hochschule Niederösterreich 2018, *Bachelorstudium für das Lehramt Primarstufe. Curriculum im Rahmen der PädagogInnenbildung* [Bachelor's degree for primary school teaching. Curriculum in the context of teacher training]. Pädagogische Hochschule Niederösterreich, Niederösterreich, viewed 30 November 2022, <https://www.ph-noe.ac.at/de/ausbildung/primarstufe/bachelorstudium-primarstufe>.
21. Pädagogische Hochschule Oberösterreich 2015, *Curriculum Bachelor- und Masterstudium Primarstufe* [Curriculum Bachelor's and Master's degree primary level]. Pädagogische Hochschule Oberösterreich, Oberösterreich viewed 30 November 2022, https://ph-ooe.at/fileadmin/Daten_PHOOE/Ausbildung_APS/Curriculum/Letztversion_Curriculum_Primar.pdf.
22. Pädagogische Hochschule Salzburg Stefan Zweig 2019, *Curriculum Bachelor- und Masterstudium Primarstufe* [Curriculum Bachelor's and Master's degree primary level]. Pädagogische Hochschule Salzburg, Salzburg, viewed 30 November 2022, https://www.phsalzburg.at/files/Dateien_Studium/Curriculum/Curriculum_Primarstufe_BA_MA60_MA90_22032021.pdf.
23. Pädagogische Hochschule Steiermark 2018, *Curriculum für das Bachelorstudium für das Lehramt Primarstufe* [Curriculum for the bachelor's degree for primary school teaching]. Pädagogische Hochschule Steiermark, Steiermark, viewed 30 November 2022, https://www.phst.at/fileadmin/user_upload/EVSO_Curriculum_Primar_Bachelor_PHSt_Version_Mitteilungsblatt_ab_2018_19.pdf.
24. Pädagogische Hochschule Tirol 2020, *Curriculum für das Bachelorstudium für das Lehramt Primarstufe* [Curriculum for the bachelor's degree for primary school teaching]. Pädagogische Hochschule Tirol, Tirol, viewed 30 November 2022 https://ph-tirol.ac.at/sites/default/files/download/mb_pht_bachelorstudium_primarstufe_curriculum2020_final_ae.pdf.
25. Pädagogische Hochschule Vorarlberg 2020, *Curriculum für das Bachelorstudium für das Lehramt Primarstufe* [Curriculum for the bachelor's degree for primary school teaching]. Pädagogische Hochschule Vorarlberg, Vorarlberg, viewed 30 November 2022, https://www.ph-vorarlberg.ac.at/fileadmin/user_upload/RED_PRIM/pdfs/Curricula/Bachelor/Curriculum_Bachelorstudium_Lehramt_Primarstufe_V20_-_Studienbeginn_ab_2020_21.pdf.
26. Pädagogische Hochschule Wien 2005, *Curriculum für das Bachelorstudium für das Lehramt Primarstufe* [Curriculum for the bachelor's degree for primary school teaching]. Pädagogische Hochschule Wien, Wien, viewed 30 November 2022, https://www.phwien.ac.at/files/VR_Lehre/Mitteilungsblatt/Ziff_5/Bachelor-Studium%20Primarstufe_mit_Erweiterungsstudien.pdf.

27. Rieckmann, M 2018, Die Bedeutung von Bildung für Nachhaltige Entwicklung für das Erreichen der Sustainable Development Goals (SDGs)[The importance of Education for Sustainable Development in achieving the Sustainable Development Goals (SDGs)], *Zeitschrift für internationale Bildungsforschung und Entwicklungspädagogik*, vol. 41, no. 2, pp. 4–10.
28. Summers, M, Corney, G and Childs, A 2004, Student teachers' conceptions of sustainable development: the starting-points of geographers and scientists. *Educational research*, vol. 46, no. 2, pp. 163-182.
29. United Nations General Assembly 2015, *Transforming Our World: The 2030 Agenda for Sustainable Development*; Resolution 70/1; Document A/RES/70/1; United Nations General Assembly: New York, NY, USA.
30. UNESCO 2016, *Education 2030: Incheon Declaration and Framework for Action towards Inclusive and Equitable Quality Education and Lifelong Learning for All*, UNESCO: Paris, France.