

1. Record Nr.	UNINA9910682581603321
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Titolo	Early Computer Science Education – Goals and Success Criteria for Pre-Primary and Primary Education // Nadine Bergner, Ilan Chabay, Hilde Köster, Johannes Magenheimer, Kathrin Müller, Ralf Romeike, Ulrik Schroeder, Carsten Schulte, Stiftung Haus der kleinen Forscher
Pubbl/distr/stampa	Leverkusen, : Verlag Barbara Budrich, 2023
ISBN	3-8474-1816-5
Edizione	[1st ed.]
Descrizione fisica	1 online resource (350 pages)
Collana	Wissenschaftliche Untersuchungen zur Arbeit der Stiftung „Haus der kleinen Forscher“
Disciplina	372.21
Soggetti	early childhood education informatische Bildung Elementar- und Primarbereich STEM frühe Bildung professional development MINT-Bildung
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	About the Authors Preface Foreword (Ilan Chabay) Introduction (“Haus der kleinen Forscher” Foundation) 1 Overview of the “Haus der kleinen Forscher” Foundation 2 Relevance of Early Computer Science Education 3 Professional Basis for the Subject Area of “Computer Science” Summary of Key Findings (“Haus der kleinen Forscher” Foundation) A Goal Dimensions of Computer Science Education at the Elementary and Primary Level (Nadine Bergner, Hilde Köster, Johannes Magenheimer, Kathrin Müller, Ralf Romeike, Ulrik Schroeder, Carsten Schulte) 1 Potential of Computer Science Education 1.1 What is Computer Science? 1.2 Computer Science as a Science 1.3 Construction in Computer Science 1.4 Similarities and Differences in Computer Science in Comparison 1.5 Computer Science and Computer Science Education 1.6 The Relationship of Computer Science Education, Media Education & Digital Education 1.7 Conclusion: Computer Science Education for all 2

Foundation of Goals on the Children's Level 2.1 Children in Digital Worlds 2.2 Foundations of Learning Psychology 2.3 Access to Computer Science for Children 2.4 International Comparison: Curricula and their Classification in the Competence Model 2.5 Placing the International Standards Within the Framework of a Competence Model for Computer Science Education at the Primary Level 2.6 Results/Conclusion 3 Goals at the Level of the Children 3.1 Overarching Basic Competencies 3.2 Motivation, Interest and Self-Efficacy of Computer Science 3.3 Computer Science Competencies of Children 3.4 Prioritisation of Specific Competence Expectations at the Level of the Children 4 Goals for Early Childhood Educators and Primary School Teachers 4.1 Motivation, Interest and Self-Efficacy 4.2 Attitudes, Approaches and Understanding of Roles 4.3 Computer Science Competencies 4.4 Computer Science Didactic Competencies 4.5 Key Competencies for Dealing With Digital Media 4.6 Conclusion/Recommendations 5 Examples of Prioritised Competence Domains for Computer Science Education 5.1 Examples of Early Computer Science Education 5.2 Summary Heat Map of Priority Setting in the Examples 6 Prerequisites for Successful Early Computer Science Education 6.1 General Conditions for Successful Implementation 6.2 Measuring Instruments to Determine the Prerequisites for Success 7 Conclusion B Professional Recommendations for Informatics Systems (Nadine Bergner, Kathrin Müller) 1 Introduction 2 Overview of Possible Informatics Systems 3 Description and Technical Assessment of Individual Informatics Systems 3.1 Cubetto Robot from Primo Toys 3.2 Beebot from Terrapin 3.3 KIBO from KinderLab Robotics 3.4 Ozobot/Ozobit from Evolve Inc. 3.5 LEGO WeDo 2.0 3.6 Dash & Dot from Wonder Workshop 3.7 Scratch and ScratchJR 3.8 Makey Makey from JoyLabzLLC 3.9 LEGO Mindstorms (NXT & EV3) 3.10 Arduino Microcontroller with ArduBlock 4 Recommendations 5 Conclusion Conclusion and Outlook – How the “Haus der kleinen Forscher” Foundation uses the findings (“Haus der kleinen Forscher” Foundation) 1 Recommendations from the Expert Reports as a Basis for the (further) Development of the Foundation's Substantive Offerings 1.1 Motivation, Interest and Self-Efficacy when Dealing with Computer Science 1.2 Computer Science Process Domains 1.3 Computer Science Content Domains 1.4 Computer Science Didactic Competencies 1.5 Attitudes, Mindsets and Understanding of Roles with Regard to the Design of Computer Science Education 2 Digital Education – A Chance for Good Early STEM Education for Sustainable Development 3 Scientific Monitoring and Evaluation of the Professional Development Workshops 4 Outlook – Organisational Development in Educational Institutions References Appendix Illustration Credits “Haus der kleinen Forscher” Foundation English Publications issued by the “Haus der kleinen Forscher” Foundation to date

Sommario/riassunto

Das Buch beschreibt Ziele und Erfolgskriterien der frühen informatischen Bildung im Vorschul- und Grundschulalter. Zwei Expertisen benennen pädagogische Inhaltsdimensionen der informatischen Bildung und geben Empfehlungen für die Weiterentwicklung der Angebote der Stiftung "Haus der kleinen Forscher". Beschrieben wird auch die Umsetzung dieser fachlichen Empfehlungen in den Programmen der Stiftung "Haus der kleinen Forscher". “Scientific Studies on the Work of the ‘Haus der kleinen Forscher’ Foundation” is a regularly published series of scientific reports authored by distinguished experts from the field of early education. This series serves to pursue professional dialogue between the Foundation, academia and practice, with the aim of lending sound support to all child-care centres, after-school care centres and primary schools in Germany in their educational mission. This ninth volume of

the series, with a foreword by Ilan Chabay, deals with the goals and requirements of computer science education in the elementary and primary sector. In their expert report, Nadine Bergner, Hilde Köster, Johannes Magenheimer, Kathrin Müller, Ralf Romeike, Ulrik Schroeder and Carsten Schulte specify the pedagogical and content-related goal dimensions of computer science education at child-care centres and primary schools. In addition to establishing a theoretical basis for various goal dimensions, the authors discuss the success criteria for effective and efficient early computer science education in practice. They also provide recommendations for the further development of the Foundation's offerings and scientific accompaniment of the work of the Foundation in the field of computer science. In their expert recommendation, Nadine Bergner and Kathrin Müller describe a selection of informatics systems for children at child-care centres and primary schools and offer suggestions for particularly suitable systems and their use in elementary and primary education based on professional criteria. The final chapter of the volume describes the implementation of these professional recommendations in the programmes of the "Haus der kleinen Forscher" Foundation – with and without computers.
