

# The Eighth International Conference on Computational Thinking and STEM Education

## List of Accepted Academic Papers

The 8th International Conference on Computational Thinking and STEM Education (CTE-STEM 2024) received a total of 98 academic papers. Each paper was reviewed by at least two experts in a double-blind review process. After careful review and selection, the committee has accepted the following papers for publication (including the final paper length type):

Submission Number & Title	Long or Short Paper
2.An Exploratory Study of the Relationship between Fixed/Growth Mindset and Computational Thinking among University Students	Long
4.The Effect of Music Producing on Computational Thinking Among Primary School Students in Childcare	Long
9.Hierarchical Computer Science Curriculum in High School: A Practice in "SCHOOL NAME REDACTED"	Long
15.Block-based versus Text-based Programming: A Comparison of Learners' Programming Behaviors, and Computational Thinking Skills toward Programming	Long
17.Exploring the Design and Practice of Artificial Intelligence Curriculum in Elementary and Middle Schools—A Case Study of AI Education Programs for Primary and Secondary Schools in Guangzhou City	Short
20.Developing Computational Thinking through Sport Games in Primary Grades	Long
24.Analysis of Problem-Oriented Computational Thinking Evaluation and Development Status Among High School Students	Short
25.Research on the current situation of computational thinking of junior high school students based on curriculum standards	Long
27.Teachers' Self-Efficacy and Patterns of TPACK Regarding Computational Thinking in Flemish Secondary Education: A Cluster Analysis	Long
28.Time Control in the Writing Process of Open Source Hardware Programs	Short
33.Research on Micro-project based Teaching for Core Competences of Information Technology Discipline	Long
34.Effectiveness of the design of a gamified Voice-Assisted Chatbot system in aiding modelling, and personalized guidance for learning basic OOP	Long
44.Studies of Creative Coding Teaching Cases at Harvard University and Activity Design Suggestions	Short
45.How Social Support Systems Facilitate the primary school students' computational thinking development: An Investigation and Analysis in China's Three Provinces	Long
48.A Curriculum Design Paradigm for Computational Thinking: Informed by Big Ideas and KUD Learning Goals	Short
49.Unveiling the Associations between Print Color of cCTt and Types of Errors	Long
54.Research on The Development of Computational Thinking Assessment Tools for Junior High School Students	Short

55.How Preservice Teachers using Computational Thinking to Solve Problem: Based on a LSA Research	Short
57.Research on the Current Status and Pathways for Improving Computational Thinking Levels in Upper Elementary School Students —Using Selected Representative Elementary Schools in City K as Examples	Long
58.The “New three-dimensional goal” of computational thinking: theoretical value, dynamic mechanism and implementation path	Short
60.Teachers as Architects of Multi-Level CT Experiences: A Phenomenological Exploration	Long
62.Reflective Practices of Teachers' Interdisciplinary Teaching and Learning Workshops Toward the Development of Computational Thinking	Short
63.A Study on Improving the Computational Thinking Pedagogical Capabilities of Teachers of Technical Subjects--Take Bebras Chinese Community As An Example	Long
64.Research on the Application of STEAM Teaching Concept based on Project-based Learning in English Teaching	Short
65.A Few Suggestions to Algorithm Teaching in 5&6 Grade Computational Thinking Education	Short
68.Research on International Trends in Information Technology Education	Short
69.Enhancing Information Technology Teaching Through Data Visualization in Computational Thinking: An Application in Understanding Logic Gate and Half-Adder Circuits	Short
70.Research on Project-Based Teaching Mode of Information Technology Curriculum for Cultivating Computational Thinking in Primary School Students	Short
71.A New Digital Test for Assessing Computational Thinking in Chinese Preschool Children: Its Construct Validity and Reliability	Long
72.Exploring the Relationship between Personality Traits and Computational Thinking among University Students	Long
73.A Study of Micro: bit Instructional Design Based on CS Unplugged and Use-Modify-Create	Short
75.K–12 Pre-service Teachers' Perspectives on AI Models and Computational Thinking: The Insights from an Interpretative Research Inquiry	Long
76.Assess Computational Thinking in K-12 Students’ Mathematics Education: A Scoping Review with Cultural Sensitivity Focus	Long
77.Enhancing Computational Thinking in Knowledge Building Community: Analyzing ChatGPT ‘s Role and Impact Among Undergraduates	Short
78.Students’ Representational Activities in a Programming-Enhanced Environment: The Case of Linear Function	Short
80.One Step Forward towards the use of Human Language to Instruct Computers to Work: A Reflection on an Example of Applying Prompts in Text-based Generative AI for Programming	Short
81.Promoting Undergraduates Computational Thinking in a Knowledge Building Environment	Long
83.The Application and Practice of Computational Thinking in Primary and Secondary Education	Short
85.A Teacher’s Professional Learning of the Computational Practice of Abstraction Through Coaching: Changes and Challenges	Short
86.Advancing Mobile App Development and Generative AI Education through MIT App Inventor	Short
87.Curriculum Activity Design of Article Intelligence in High School of Primary School from the Perspective of Computational Thinking	Short
92.A Systematic Literature Review of Computational Thinking Evaluation Research in China	Long

93.STEM as a Whole: Designing an Out-of-School STEM Program to Empower Underrepresented Minority Girls in STEM	Short
94.Which Learning Scaffold Is More Effective? A Study of The Effect Of Learning Scaffolds On The Learning Achievement and Computational Thinking of Students With Different Levels of Metacognition.	Long
95.Assessing “Event” in Computational Thinking of Primary School Students: Design Principles and Test Validation	Short
96.Fostering Computational Thinking in preK-12 Education: A Bibliometric Analysis and Visualization of the Literature	Short
97.The Construction and Application of a Pedagogical Framework for Primary English Curriculum Based on Computational Thinking	Long
98.A Critical Review of Research on Teaching Computational Thinking in Chinese Elementary Schools	Short

Please highlight the most important contributions of the paper, according to the conference's requirements on paper length control.

Please revise the paper according to the prescribed requirements and update the files on EasyChair before April 5th. <https://easychair.org/>

Please register for the meeting before April 30th. Otherwise, it will be automatically considered as a waiver of the paper review results. <https://ctestem24.bnu.edu.cn/homepage-4-3/>