## Documento Complementar do artigo

## "Robótica Educacional Aplicada ao Desenvolvimento do Pensamento Computacional: Um Mapeamento Sistemático da Literatura"

A tabela a seguir apresenta os estudos primários utilizados no mapeamento:

| ID  | Biblioteca Virtual | Ano  | Autores  | Título  |
|-----|--------------------|------|--|---|
| E01 | ACM                | 2010 | Mikko Apiola, Matti Lattu, e Tomi A.<br>Pasanen  | Creativity and Intrinsic Motivation in Computer Science Education:  Experimenting with Robots   |
| E02 | SCIENCEDIRECT      | 2012 | Uvais Qidwai, Ryan Riley e Sayed El-<br>Sayed  | Attracting Students to the Computing Disciplines: A Case Study of a Robotics Contest  |
| E03 | SCIENCEDIRECT      | 2014 | Marina Umaschi Bers, Louise Flannery,<br>Elizabeth R. Kazakoff e Amanda<br>Sullivan  | Computational thinking and tinkering: Exploration of an early childhood robotics curriculum   |
| E04 | SCOPUS             | 2015 | Jacqui Chetty  | Lego© mindstorms: Merely a toy or a powerful pedagogical tool for learning computer programming?  |
| E05 | SCOPUS             | 2016 | Soumela Atmatzidou e Stavros<br>Demetriadis  | Advancing students' computational thinking skills through educational robotics: A study on age and gender relevant differences  |
| E06 | SPRINGER           | 2016 | Jacqueline Leonard, Alan Buss, Ruben<br>Gamboa, Monica Mitchell, Olatokunbo<br>S. Fashola, Tarcia Hubert e Sultan<br>Almughyirah | Using Robotics and Game Design to Enhance Children's Self-<br>Efficacy, STEM Attitudes, and Computational Thinking Skills   |
| E07 | SCIENCEDIRECT      | 2016 | Soumela Atmatzidou e Stavros<br>Demetriadis  | Advancing students' computational thinking skills through educational robotics: A study on age and gender relevant differences  |
| E08 | SCOPUS             | 2017 | Yen Air Caballero González e Ana<br>García-Valcárcel Muñoz-Repiso  | Development of computational thinking skills and collaborative learning in initial education students through educational activities supported by ICT resources and programmable educational robots |

| E09 | SCOPUS | 2017 | Lito Athanasiou, Paraskevi Topali e A.<br>Mikropoulos  | The use of robotics in introductory programming for elementary students  |
|-----|--------|------|--|--|
| E10 | SCOPUS | 2017 | Soumela Atmatzidou e Stavros<br>Demetriadis  | A didactical model for educational robotics activities: A study on improving skills through strong or minimal guidance                                 |
| E11 | SCOPUS | 2017 | Ernest B. B. Gyebi, Marc Hanheide e<br>Grzegorz Cielniak   | The effectiveness of integrating educational robotic activities into higher education computer science curricula: A case study in a developing country |
| E12 | ACM    | 2017 | Alexandros Merkouris, Konstantinos<br>Chorianopoulos e Achilles Kameas   | Teaching Programming in Secondary Education Through Embodied<br>Computing Platforms: Robotics and Wearables  |
| E13 | SCOPUS | 2018 | Alexandres Merkouris e Konstantinos<br>Chorianopoulos  | Programming touch and full-body interaction with a remotely controlled robot in a secondary education STEM course                                      |
| E14 | SCOPUS | 2018 | Yen Air Caballero González e Ana<br>García-Valcárcel Muñoz-Repiso  | A robotics-based approach to foster programming skills and computational thinking: Pilot experience in the classroom of early childhood education      |
| E15 | SCOPUS | 2018 | Wagner Titon e Alejandro Rafael<br>Garcia Ramirez  | Teaching programming concepts using educational robotics supported by the arduino platform: An application in the industrial computer learning course  |
| E16 | SCOPUS | 2018 | Dayang N. A. Jawawi, Noraini<br>Ibrahim, Shahliza Abdul Halim, Rosbi<br>Mamar, Norhidawani Mohamed e<br>Rooster Tumeng | Adaptation of Project-Oriented Problem-Based Framework for<br>Teaching Computer Programming  |
| E17 | SCOPUS | 2018 | S. Chookaew, S. Howimanporn, P. Pratumsuwan, S. Hutamarn, W. Sootkaneung e C. Wongwatkit                               | Enhancing High-School Students' Computational Thinking with Educational Robotics Learning  |
| E18 | SCOPUS | 2018 | Wei-Yeh Huang, Chiu-Fan Hu e Cheng-<br>Chih Wu   | The Use of Different Kinds of Robots to Spark Student Interest in Learning Computational Thinking  |
| E19 | SCOPUS | 2018 | Yen Air Caballero González e Ana<br>García-Valcárcel Muñoz-Repiso  | Educational robotics for the formation of programming skills and computational thinking in childish  |
| E20 | SCOPUS | 2018 | Vaso Constantinou e<br>Andri Ioannou   | Development of computational thinking skills through educational robotics  |

| E21 | IEEE          | 2018 | Blanca Miller, Adam Kirn, Mercedes<br>Anderson, Justin C. Major, David Feil-<br>Seifer e Melissa Jurkiewicz | Unplugged Robotics to Increase K-12 Students' Engineering Interest and Attitudes  |
|-----|---------------|------|---|---|
| E22 | ACM           | 2018 | Giuseppe Chiazzese, Marco Arrigo,<br>Antonella Chifari, Violetta Lonati, e<br>Crispino Tosto                | Exploring the Effect of a Robotics Laboratory on Computational Thinking Skills in Primary School Children Using the Bebras Tasks            |
| E23 | SCOPUS        | 2019 | Evgenia Roussou e Maria Rangoussi   | On the use of robotics for the development of computational thinking in kindergarten: Educational intervention and evaluation               |
| E24 | SCOPUS        | 2019 | Maria Blancas, Cristina Valero, Anna<br>Mura, Vasiliki Vouloutsi e Paul F. M. J.<br>Verschure               | "CREA": An inquiry-based methodology to teach robotics to children  |
| E25 | SCOPUS        | 2019 | Marina U.Bers, Carina González-<br>González e BelénArmas–Torres   | Coding as a playground: Promoting positive learning experiences in childhood classrooms   |
| E26 | SCOPUS        | 2019 | Masahiro Osogami, Kazutomi Sugihara e Kazumasa Ohkuma   | The effects for programming learning using actual robots control with scratch   |
| E27 | SCOPUS        | 2019 | Alexandros Merkouris e Konstantinos<br>Chorianopoulos   | Programming embodied interactions with a remotely controlled educational robot  |
| E28 | SPRINGER      | 2019 | José-Manuel Sáez-López, Maria-Luisa<br>Sevillano-García e Esteban Vazquez-<br>Cano                          | The effect of programming on primary school students' mathematical and scientific understanding: educational use of mBot                    |
| E29 | SPRINGER      | 2019 | P. Kevin Keith, Florence R. Sullivan e<br>Duy Pham  | Roles, Collaboration, and the Development of Computational Thinking in a Robotics Learning Environment                                      |
| E30 | IEEE          | 2019 | Bayram Koyuncu, Majlinda Fetaji,<br>Bekim Fetaji e Anis Sefidanovski  | Analyzing the Impact of New Instruction Method Using Hardware Control Such As Robotics in Learning Programming                              |
| E31 | IEEE          | 2019 | Joao Tiago Aparicio, Sergio Pereira,<br>Manuela Aparicio e Carlos J. Costa                                  | Learning Programming Using Educational Robotics   |
| E32 | SCIENCEDIRECT | 2019 | Charoula Angelia e Nicos Valanides  | Developing young children's computational thinking with educational robotics: An interaction effect between gender and scaffolding strategy |