

CURRICULUM VITA

SOOHWAN KIM



**Associate Professor of Dept. Christian Education
(Major of Computer science education)**

MAILING ADDRESS:

Chongshin University
Sadangro 143
Dongjakgu, Seoul
KOREA
zipcode: 06988

PHONE: +82-2-3479-0467 (Office)
+82-10-8324-6516 (Cell phone)

E-MAIL: skim@csu.ac.kr
hwankim92@gmail.com

SOOHWAN KIM

skim@csu.ac.kr

PROFILE

- **Research Interests** – Computing Education, AI Education, Digital Literacy Education, K-12 computing curriculum, Teaching and Learning Methods, Evaluation Methods
- **Broad and practical teaching experiences in various educational fields** – worked as an elementary school teacher for 15 years, a lecturer in teacher training for computing education, AI education and the educational
- **Abundant research experiences and excellent scholarship** - received awards and accolades in research contests for several times, consistently published thesis, presented papers in journal and international conferences, and took part in national projects related on my research domain.
- **Proven technology skills by various studies and lectures** - took plentiful lessons for developing technology skills in graduate schools and teacher trainings and applied them to my lectures and researches.
- **Developing various learning contents and web site** – developed learning contents of math, English, science and society for elementary students, and teacher training web site by using Javascript, PHP, HTML, Photoshop and Premier.

EDUCATION

03/2007 ~ 08/2011 **Ph.D. Dept. of Computer Science Education**

MAJOR: Computer and Information Science Education

Korea University, Seoul, KOREA, Advisor: HyeonCheol Kim, Ph.D.

Thesis Title: “A Study on Computational Literacy Education to Enhance Problem Solving Capability”

03/2004~08/2006 **M.E Elementary Computer Education**

Gyeongin national university of Education, Incheon, KOREA

Advisor: SunGwan Han, Ph.D.

Thesis Title: “Implementation and Application of Visualization for CSCL(Computer Supported Collaborative Learning)”

03/1992~02/1999 **B.E Elementary Education**

Gyeongin national university of Education, in Incheon, KOREA

PROFESSIONAL HISTORY

2014 ~ PRESENT **Associate Professor**, of Chongshin University (Korea)

2014 ~ PRESENT **Director**, of Media Lab. in Chongshin University

2020 ~ PRESENT **Vice Presidents**, of The Korean Association of Computer Education

2023 ~ PRESENT **Expert committee member**, of National Education Commission

2018 ~ PRESENT **Executive**, of Software Education Leaders Forum

2017 ~ PRESENT **Executive Director**, of Korea Information Science Education Federation

2015 ~ PRESENT **Researcher**, of SW/AI education (KOFAC)

2022 **Member**, of Working committee for AI Education in Ministry of Education

2021 ~ 2023	<u>Vice Presidents</u> , of Research & Industry Cooperation Foundation in Chongshin University
2020 ~ 2021	<u>Member</u> , of Broadcasters' Audience Board in Education Broadcast System
2019 ~ 2022	<u>Member</u> , of Incheon Future Education Commission
2018 ~ 2023	<u>Center Director</u> , of Center for Distance Education in Chongshin University
2014	<u>Consultant</u> , of SW education (Incheon ministry of education)
2013	<u>Adjunct professor</u> , of Gyengin University of Education (Korea)
2012 ~ 2014	<u>Senior consultant</u> , of smart learning, Changsin elementary school (Korea)
2010 ~ 2014	<u>Senior researcher</u> , Institute of Future Informational Talent (Korea)
2010 ~ 2013	<u>Manager</u> , Camp for game addicted students and teacher training course , Institute of Future Informational Talent (Korea), and Scratch Day in Korea.
2011 ~ 2013	<u>Lecturer</u> , STEM fusion Camp for gifted students, Institute of Future Informational Talent (Korea)
2011	<u>Lecturer</u> , for gifted students of information, Incheon education office (Korea)
2010 ~ 2011	<u>Manager and Teacher</u> , Korean manager for Global Moon Project, Texas Tech University (USA)
2008 ~ 2010	<u>Leading agent</u> for ICT, Incheon education office (Korea)
2008 ~ 2009	<u>Lecturer</u> , for Information Ethics, National Information Society Agency (Korea)
2007 ~ 2013	<u>Part-time Professor</u> , Department of Compute education , Gyeongin National University of Education (Korea)
2007 ~ 2009	<u>Part-time Professor</u> , Introduction to Multimedia and Computer, Chongshin University and Methodist Theological University (Korea)
2005 ~ 2014	<u>Lecturer</u> , of ICT and Smart learning, Incheon Education Office (Korea)
2004	<u>Lecturer</u> , of Designing of teaching and learning with ICT, National Education Office and Intel Future Education
1999 ~ 2014	<u>Elementary school teacher</u> (Korea)

INTERNATIONAL ACTIVITIES

2023	<u>International Parter</u> , of code.org international conference 2023 (USA)
2023	<u>Project Manager</u> , of code.org CS contents translation work (Korean)
2023	<u>Presenter</u> , of ISTE AI Projects guidebook seminar (Korea)
2022	<u>Presenter</u> , of Microsoft Computer Science Curriculum Toolkit Seminar(Korea)
2022	<u>Discussion Chair</u> , of Future Lab conference at Korea (with Mitchell Resnick, Natalie Rusk)
2021	<u>Research Collaborator</u> , of International Research at BROOKINGS (https://www.brookings.edu/wp-content/uploads/2021/10/How-S-Korea-implemented-its-CS-program_FINAL.pdf)

- 2020 **Discussion Presenter**, of 2020 Global SW Education Conference at Korea
- 2019 **Presenter**, of 2019 Global SW Education Conference at Korea
- 2017 **Project Manager**, in International Report Translation Projects([Assessment Design Patterns for Computational Thinking Practices in Exploring Computer Science](#))
- 2015 **Project Manager**, in Creative Computing Curriculum Translation Projects (<https://creativecomputing.gse.harvard.edu/guide/curriculum.html>)
- 2012, 2014, 2016 **Presenter**, of Scratch Conference (at MIT)

LICENSE & CERTIFICATE

- SEPTEMBER 2008 Instructor certificate of Information and communication ethics for students, parents and teachers
- FEBRUARY 2003 Obtain the 1st Teacher Certificate for elementary school(Korea)
- AUGUST 2002 Instructor certificate of Intel to the Future for teacher
- FEBRUARY 1999 Obtain the 2nd Teacher Certificate for elementary school(Korea)

PUBLICATIONS

□ Books

- Kim, S. et al. (2023) Digital Education Trend Report 2024. Tekville Education.
- Kim, S. (2022) A Metaverse Journey with Your Children. Phytoncide press.
- Kim, S. et al. (2021) Will Teachers Survive in the Age of AI? CommunicationBooks.
- Kim, S. et al. (2021) Digital Power 2021. HadA.
- Kim, S. et al. (2020) Just the Beginning! From Computational Thinking to Artificial Intelligence. YD edition.
- Kim, S. et al. (2020) Designing Church Education After COVID-19. Listen & See.
- Kim, S. et al. (2020) First Walk through Computer Science. Life & Power Press.
- Kim, S. & Kim, H. (2018). A Computational Thinking Curriculum and Teacher Professional Development in South Korea. Springer.
- Kim, S. et al. (2017) Translated Computational Thinking and Coding for Every Student: The Teacher's Getting-Started Guide(Corwin) into Korean.
- Kim, S. et al. (2015). Informatics middle school textbook. Chunjae Textbook.
- Kim, S. et al. (2016). Programming Finish in a Day. Life and Power Press.
- Kim, S. et al. (2015). Creative Computing (Guidebook). Life and Power Press.
- Kim, S. et al. (2015). Creative Computing (Workbook). Life and Power Press.
- Kim, S. et al. (2014). Essence of College Life, SNS!. Naro Networks.
- Kim, S. et al. (2014). Creative Computing with Appinventer (level 1). Book and Tree Publication.
- Kim, S. et al. (2013). Creative Computing with Scratch (level 1 ~ 3). Book and Tree Publication.

Kim, H., Kim, S. et al. (2010). *Right Information Life*, Seoul, Korea: NIA and Samyang Media Publication.

Kim, H., Kim, S. et al. (2008). *The World of Information Science*, Seoul, Korea: Kyohaksa Publication.

Kim, Y., Han, S., Han, H., Kim, S., & Jun, S. (2007). *The practical handbook of information education*. Kyeonggi, Korea: Korean Studies Information Publication.

□ **PEER REVIEWED Journals**

- **International Journals (SCIE & SCI level)**

Kim, S., Jang, Y., Choi, S. et al. Analyzing Teacher Competency with TPACK for K-12 AI Education. *Künstl Intell* **35**, 139–151 (2021). <https://doi.org/10.1007/s13218-021-00731-9>

Kim, H. S., Kim, S., Na, W. and Lee, W. J. (2021) Extending Computational Thinking into Information and Communication Technology Literacy Measurement: Gender and Grade Issues. *ACM Trans. Comput. Educ.* 21, 1, Article 5, 1-25.

Jun, S., Han, S. & Kim, H. & (2016). Effect of design-based learning on improving computational thinking. *Behaviour & Information Technology*, online, 1-11.

Kim, S. et al. (2015). The Effectiveness of Visualization System for Virtual Reality Learning. *International Journal of u- and e-Service, Science and Technology*, 8(12), 151-160.

Kim, S. & Han, S. (2014). The Development of Application for Diagnosing Disabilities' Types base on SVM (Support Vector Machine), *International Journal of Digital Content Technology & its Application*, 2, 140-152.

Kim, S., Kim, H. & Han, S. (2013). A development of learning widget on m-learning and e-learning environments. *Behaviour & Information Technology*, 32, 190-202.

Kim, S., Cheon, J., Han, S. & Kim, H. (2011). Examining Differences of Users' Perceptions of Multimedia Content Types in a National Online Learning System. *The Asia-Pacific Education Researcher*, 20(3), 621-628.

Kim, S., Kim, H. & Han, S.(2008). The Study on Visualization Systems for Computer-Supported Collaborative Learning, *LNCS(Lecture Notes Computer Science)*, 5093,107-113.

Kim, S., Kim, H., Lee, J., Han, S. & Lee, C.(2008). A Design of u-Learning System based on Memory Theories in Ubiquitous Environments, *WSEAS TRANSACTIONS on ADVANCES in ENGINEERING EDUCATION*, 5(2)

Jun, S., Han, S., Kim, S., Kim, H., & Lee, W.(2007). A context model based on multi-agent in u-learning environment, *LNCS*, 4469, 274-282.

Kim, S., Jun, S., & Han, S.(2007). Rough set reasoning system for deciding Learning style in cyber education, *WSEAS Transactions on Information Science and Applications*, 4(2), 324-330.

Han, H., Han, S., Kim, S. Kim, H. (2007). Adaptive QoS for Educational User Created Content(UCC), *LNCS 4469*, 316-323.

Kim, S., Han, H. & Han, S. (2006). *The Study on Effective Programming Learning using Wiki Community Systems*, *LNCS*, 4227

- **Korean Journals (KCI level)**

TPACK model for Church School Educators, *Theology and Praxis*, 2024.02

Development of Artificial Intelligence Literacy Framework for General Teachers, *The Journal of Korean Association of Computer Education*, 2023.11

Analysis of Functions and Services for the Development of AI Education Platform, *The Journal of Korean Association of Computer Education*, 2021.03

Development of a Standard Curriculum Model of Next-generation Software Education, *JOURNAL OF The Korean Association of information Education*, 2020.08

Review on Artificial Intelligence Education for K-12 Students and Teachers, *The Journal of Korean Association of Computer Education*, 2020.07

Development of Debugging Tasks and Tool for Process-centered Assessment on Software Education, *The Journal of Korean Association of Computer Education*, 2020.07

A comparison of digital literacy level of elementary and middle school students based on the 2018-2019 National Assessment of Digital Literacy, *Journal of Korean Association for Educational Information and Media*, 2020.06

Development of Game Developer Career Experience Program using Scratch, *The Journal of Korean Association of Computer Education*, 2020.01

Developing a Digital Literacy Curriculum Framework, *CNU Journal of Educational Studies*, 2019.08

The Effectiveness of Flipped Learning for Teenagers in Church Education, *Theology and Praxis*, 2019.05

Analysis of Abstraction Contents in Informatics Textbooks of Middle School According to 2015 Revised Curriculum, *The Journal of Korean Association of Computer Education*, 2018.09

Development of evaluation factors for SW education in elementary and secondary schools, *The Journal of Korean Association of Computer Education*, 2017.11

Analysis about the Initial Process of Learning Transfer in Computational Thinking Education, *The Journal of Korean Association of Computer Education*, 2017.11

Stages of Concern of Korean Teachers about Software Education and the Teacher Characteristics, *Journal of The Korean Association of information Education*, 2016.08

Development of Scratch Code Analysis System for Assessment about Concepts of Computational Thinking, The Journal of Korean Association of Computer Education, 2015.11

Analysis of Scratch code for Student Assessment about Computational Thinking Capability, The Journal of Korean Association of Computer Education, 2015.09

Effects of Teaching and Learning Strategies of Learner-Centered Learning for Improving Computational Thinking, Journal of The Korean Association of information Education, 2015.09

Analysis on the Parents Aware of the Need for the Elementary SW Education, Journal of The Korean Association of information Education, 2015.06

Analysis of Art and Humanity Major Learners' Features in Programming Class, The Journal of Korean Association of Computer Education, 2015.05

Analysis of Non-Computer Majors' Difficulties in Computational Thinking Education, The Journal of Korean Association of Computer Education, 2015.05

A Possibility of Christian Education Utilizing Multimedia Creation, Christian Education and Information Technology, 2015.03

The Relationship Analysis between Smartphone Addiction and Ecological Factors of Elementary Students, Journal of The Korean Association of information Education, 2014.12

A Perception on SW Education of Students with Scratch-Day, Journal of The Korean Association of information Education, 2014.12

Development of Tools to Evaluate the Effectiveness of Smart Education and Digital Textbooks, Journal of The Korean Association of information Education, 2014.06

Intensive Treatment Program for Students with Game Addiction based on Multiple Intelligences, Journal of The Korean Association of information Education, 2014.03

The Analysis of Features of Project Based Learning in Smart Learning Environment, Journal of The Korean Association of information Education, 2013.09

Design-Based Learning for Computational Thinking, Journal of The Korean Association of information Education, 2012.09

Analyzing the Effectiveness of Discussion Learning using the Technology Acceptance Model on Social Networking Service, Journal of The Korean Association of information Education, 2011.12

Effect of Multiple Intelligence-based Strategy in Computational Literacy Education, Journal of Korean Association of Computer Education, 2011.11

The Information Gifted Teacher's Recognition and Developing the Copyright Education Program, Journal of The Korean Association of information Education, 2011.09

Analysis of Programming Processes Through Novices' Thinking Aloud in Computational Literacy Education, The Journal of Korean Association of Computer Education, 2011.01

The Comparison of Students Grade Level on the Integrated Learning Program for Mathematical Problem Solving using EPL, Journal of The Korean Association of information Education, 2010.09

Developing a Web-based Counselling System for Diagnose and Positive Behavioral Supports of Students with Emotional and Behavioral Problems, Korean Journal of Special Education, 2010.03

A Study on Learner's Characteristics and Programming Skill in Computational Literacy Education - Focus on learning style and multiple intelligence -, The Journal of Korean Association of Computer Education, 2010.03

The Development of the Game Addiction Remedy Program based on Scratch Programming, Journal of The Korean Association of information Education, 2010.03

The Study on Relief of Elementary Students' Game Addiction through the Online Game Development Project Learning, Journal of The Korean Association of information Education, 2009.12

Applications of Educational Programming Languages in K-12 Information curriculum, The Journal of Korean Association of Computer Education, 2009.03

Study on Effective Knowledge Delivery and Construction, The Journal of Korean Association of Computer Education, 2008.05

□ **RESEARCH PROJECT EXPERIENCE (IN THE LAST 5YEARS)**

- Comprehensive Analysis of Informatics Education Implementation Performance and Basic Research for Establishing Mid-to-Long Term Development Directions, Korea Foundation for the Advancement of Science & Creativity (KOFAC), 2023
- Development of Seoul-Style Artificial Intelligence (AI) Literacy Framework and Diagnostic Tools, Seoul education research & information institute, 2023
- Improvement and Measurement Study of Performance-Based Digital Literacy Assessment Tools for Elementary and Middle School Students in Early 2023, Korea Education & Research Information Service (KERIS), 2023
- Gyeonggi Province Digital Competency Enhancement Project, National Information Agency (NIA), 2023
- Research on the Introduction of a Digital-Based Learning History Management System, Ministry of Education, 2022
- Applications of Enhancement of the Re-education System for In-service Teachers for AI and Digital Competency Strengthening, Seoul National University (Ministry of Education), 2022
- 2022 National Level Digital Literacy Assessment for Elementary and Middle School Students, Korea Education & Research Information Service (KERIS), 2022
- Gyeonggi Province Digital Competency Enhancement Project, National Information Agency (NIA), 2022

- Development of the Final Draft for the Revised 2022 Information Education Curriculum, Korea Foundation for the Advancement of Science & Creativity (KOFAC), 2022
- Development of AI Literacy Educational Materials for Teachers, Seoul Metropolitan Office of Education, 2022
- Development of an AI Programming Education Support Program for Elementary Schools, Google Korea LLC, 2021
- Gyeonggi Province Digital Competency Enhancement Project, National Information Agency (NIA) (Repeated), 2021
- Policy Research on Creating an Educational Ecosystem for AI Education Activation, Ministry of Education, 2021
- Research on Mid-to-Long Term Development Strategies for Incheon Education, Incheon Metropolitan City Office of Education, 2021
- Commissioned Research for Developing an AI Ethics Curriculum, Connect Foundation, 2021
- Software Education Platform 'E-Sop': Research on Mid-to-Long Term Development Strategies, EBS, 2020
- 2020 National Level Digital Literacy Assessment for Elementary and Middle School Students, Korea Education & Research Information Service (KERIS), 2020
- Commissioned Research on Developing an After-School AI Education Curriculum, Connect Foundation, 2020
- Research and Guidelines on the Current Status of Private Certifications including Software Education, Korea Foundation for the Advancement of Science & Creativity (KOFAC), 2019
- AI Education Platform Planning Policy Research, Korea Foundation for the Advancement of Science & Creativity (KOFAC), 2018
- Development of Debugging Tasks and Tools to Support Process-Oriented Evaluation in Software Education, Research Foundation, 2019
- 2019 National Level Digital Literacy Assessment for Elementary and Middle School Students, Korea Education & Research Information Service (KERIS), 2019
- Research and Forum Operation for Innovation in Elementary and Secondary Software Education, Korea Foundation for the Advancement of Science & Creativity (KOFAC), 2019
- Development of a Process-Centered Evaluation Teacher Competency Enhancement Training Program (Information), Korea Foundation for the Advancement of Science & Creativity (KOFAC), 2019

TEACHING EXPERIENCE

- ICT Education
- Informatics Education Pedagogy
- STEAM Education Instructional Methods
- Introduction of Computer Science
- Mobile Programming with App Inventor
- Multimedia and Computational Thinking
- Digital Literacy Education
- AI Education Instructional Methods

HONORS / AWARDS

- Industry-Academic Cooperation Award (Chongshin University), 2021, 2022, 2023
- Lecture Excellence Award (Chongshin University), 2020 and 2021
- Award of Best Paper of the Year in Computer Education (Journal of Korean Association of Computer Education), 2017 and 2019
- SW Education Achievement Award (Ministry of Science and ICT), 2016