Designing for Children with focus on 'Play and Learn'

28th - 30th, January 2021

IDC School of Design, IIT Bombay, Mumbai, India

Speaker Presentations:

The following are the abstracts accepted for online presentation during the Designing for Children Mumbai 2020 international conference with focus on 'Play and Learn': **28th - 30th, January 2021,** organised by the Industrial Design Centre (IDC), IIT Bombay.

ISBN 978-81-931260-8-0

Speakers:

Assessing playfulness of a toy play interaction: A research with differently abled children with communication challenges
Aakash Johry, Department of Industrial Design, Eindhoven University of Technology, the Netherlands and *Prof. Ravi Poovaiah*, IDC IIT Bombay, India. . . . . (Full_Final-Submissions/papers/Aakash Johry/Aakash-Johry-Assessing-playfulness.pdf)

Exploring the semantic way of teaching English language to the children of Indian vernacular medium schools
Abhay Verma, Central Institute of Technology, Kokrajhar, India. . . . . **(Full_Final-Submissions/papers/Abhay Verma/Abhay-Verma-Exploring the semantic way of teaching English language to the children of Indian vernacular medium schools.pdf)**

Design for Difference: Cognitive Enhancement Toys for Children with Developmental delays
Aditi Deshpande, Symbiosis Institute of Design, India. . . . . **(Full_Final-Submissions/papers/Aditi Deshpande/Aditi-Deshpande-Design-for-Difference-Cognitive-Enhancement-Toys-for-Children-with-Developmental-delays.pdf)**

Teaching visual language of design and implementing it to teach other subjects in primary school
Aditi Parikh, World University of Design, Sonepat, India. . . . . **(Full_Final-Submissions/papers/Aditi Parikh/Aditi-Parikh-Teaching-visual-language-of-design-and-implementing-it-to-teach-other-subjects-in-primary-school.pdf)**

Development of an Assistive Haptic Device for Refinement of Motor Skills in Children
Ahmad Muzaffar Kemsan, Ifrah Shahdad, Amardeep Singh Tulla and Anzer Ahmed Posh, Islamic University of Science and Technology, India. . . . . **(Full_Final-Submissions/papers/Ahmad Muzaffer Kemsan/Ahmad-kemsan-Development-of-an-Assistive-Haptic-Device-for-Refinement-of-Motor-Skills-in-Children.pdf)**

Design of an Icon-driven Augmentative and Assisted Communication System for Children experiencing Difficulty with Speech and Language
Dr. Ajanta Sen, Director, Solar Project, Mumbai, India and *Prof. Ravi Poovaiah,* IDC School of Design IIT Bombay

Board games and education Transitions & Transformations
Amit Deshmukh and Dr. Nachiket Thakur, MIT Institute of design, MIT ADT University, India. . . . . . **(Full_Final-Submissions/papers/Amit Deshmukh/Amit-Deshmukh-Board-games-and-education-Transitions-and-Transformations.pdf)**

Plezmo : Education platform for children to â€˜Learn through play
Anand Palsodkar, Elephant Design Pvt Ltd, India. . . . . **(Full_Final-Submissions/papers/Anand Palsodkar/Anand-Palsodkar-Plezmo-Education-platform-for-children-to-'Learn-through-play'.pdf)**

Design of symbolic science characters: a visual design exercise with children
Anisha Malhotra Dalvi, Adithi Muralidhar and Sugra Chunawala,
Homi Bhabha Centre for Science Education, India. . . . . **(Full_Final-Submissions/papers/Anisha Malhotra**

Dalvi/Anisha-Malhotra-Dalvi-Design-of-symbolic-science-characters-a-visual-design-exercise-with-children.pdf)

The CLIx Open Story Tool: A World of Interaction
Anusha Ramanathan and Louisa Rosenheck, CEIAR, TISS, India**. . . . . 📄 (Full_Final-Submissions/papers/Anusha Ramanathan/Anusha-Ramanathan-The-CLIx-Open-Story-Tool-A-World-of-Interaction.pdf)**

Designing an experiential multi-perspective lens to storytelling
Apoorva Jain, Ambedkar University, Delhi, India**. . . . . . . 📄 (Full_Final-Submissions/papers/Apoorva Jain/Apoorva-Jain-Designing-an-experiential-multi-perspective-lens-to-storytelling.pdf)**

Factors of Design for Child Carriers between 6-18 months under the Ergonomics for the Elderly
Ariya Atthawuttikul, Rajamangala University of Technology Tawan-ok(Uthenthawai Campus),Thailand**. . 📄 (Full_Final-Submissions/papers/Dr Ariya Atthawuttikul/Dr-Ariya-Atthawuttikul-Factors-of-Design-for-Child-Carriers-between-6-18-months-under-the-Ergonomics-for-the-Elderly.pdf)**

DESIGNING FOR CHILDREN THROUGH PLAY & LEARN _Adapting to a Digital Future
Avik Roy and Bhagyashri Sharma, KIIT SCHOOL OF ARCHITECTURE & PLANNING, India**. . . . . 📄 (Full_Final-Submissions/papers/Avik Roy/Avik-Roy-Adapting-to-a-Digital-Future.pdf)**

Investigating Six Bricks as an effective and affordable design for early skill development of communication through play
Binal Kamdar and Aastha Patel, TeachSTEAM, India**. . . . . . . 📄 (Full_Final-Submissions/papers/Binal Kamdar/Binal-Kamdar-Investigating-Six-Bricks-as-an-effective-and-affordable-design-for-early-skill-development-of-communication-through-play.pdf)**

Design considerations for designing of Spatial- Number Sense manipulatives
Ekta S and Dr. Koumudi Patil, CPDM, IISc, Bangalore, India. . . . . . . 📄 (Full_Final-Submissions/papers/Ekta Surender/Ekta-Surender-Design-considerations-for-designing-of-Spatial-Number-Sense-manipulatives.pdf)

Farm School Lab . Design method for sustainable space for children school learning strategies . Case of form finding in laboratory aquaponic system inspire by cymatic movement of water.
Elvert Duran Vivanco, Jose Luis emndez, Ripper. Joao, Victor Azevedo Alice and Alves Ribeiro, PontifÍcia Universidade CatÃ³lica do Rio de Janeiro - PUC-Rio, Brazil. . . . . . . 📄 (Full_Final-Submissions/papers/Elvert Duran Vivanco/Elvert-Duran-Vivanco-Farm-School-Lab-Design-method-for-sustainable-space-for-children-school-learning-strategies.pdf)

Development of a robot for emotional support of children during walking rehabilitation
Jaime Alvarez and Eriko Hara, Takushoku University, Graduate School of Engineering, Japan. . . . . 📄 (Full_Final-Submissions/papers/Jaime_Alvarez/J_Alvarez_E_Hara_K_Adachi_Y_agawa_Development of a robot for emotional support of children during walking rehabilitation.pdf)

Human Centred Design Approach in Development of Educational Toy: A case study of Alphabets Learning
Gaurav Vaidya, Department of Design, Indian Institute of Technology, Guwahati, India. . . . . . . 📄 (Full_Final-Submissions/papers/Gaurav Vaidya/Gaurav-Vaidya-Human-Centred-Design-Approach-in-Development-of-Educational-Toy-A-case-study-of-Alphabets-Learning.pdf)

Hydroponics Playground Garden, 'Playponics'; designing integrated sustainability and STEM education

through play.
Heath Reed, Andrew Stanton, Avika Sood and Prof Michael Knowles, Sheffeild Hallam University, UK. . . 📄 (Full_Final-Submissions/papers/Heath Reed/Heath-Reed-Hydroponics-Playground-Garden-Playponics'-designing-integrated-sustainability-and-STEM-education-through-play.pdf)

Discovering Johnny Appleseed
James Postell, Department of Design / School of Design, Politecnico di Milano, Italy. . . . .📄 (Full_Final-Submissions/papers/James Postell/James-Postell-Discovering-Johnny-Appleseed.pdf)

Not play; but playfulness- Not ready made toys; but making of toys Exploring how children create knowledge by decoding various experiences and what can design education learn from it.
Jinan K B, Existential knowledge foundation, India. . . . . . . 📄 (Full_Final-Submissions/papers/Jinan K B/Jinan-K-B-Not-play-but-playfulness-Not-readymade-toys-but-conjuring-up-of-toys.pdf)

Pink or Blue: The Gender Profiling of Toys and Consequent Social and Cultural Connotations
Kali Rawat, PEARL ACADEMY, MUMBAI, India. . . . . . . 📄 (Full_Final-Submissions/papers/Kali Rawat/Kali-Rawat-Pink-or-Blue-The-Gender-Profiling-of-Toys-and-Consequent-Social-and-Cultural-Connotations.pdf)

Culturally inclined games: A way to trigger quest for understanding ethnic identities
Leena Jain, Design Innovation and Craft Resource Center (DICRC), CEPT University, India. . . . . . . 📄 (Full_Final-Submissions/papers/Leena Jain/Leena-Jain-Culturally-inclined-games-A-way-to-trigger-quest-for-understanding-ethnic-identities.pdf)

Creative Play: Thinking, Imagining, Inventing
Mary Jane Begin, Rhode Island School of Design, US. . . . . . . 📄 (Full_Final-Submissions/papers/Mary Jane Begin/Mary-Jane-Begin-Creative-Play-Thinking-Imagining-Inventing.pdf)

Open design for enabling better access to STEM education for children
MC Kumari and B. Gurumoorthy, Indian Institute of Science, Bangalore, India. . . . . . . 📄 (Full_Final-Submissions/papers/M.C. Kumari/M-C-Kumari-Open-Design-for-enabling-better-access-to-STEM-education-for-Chidlren-Full-paper-1.pdf)

TAKTILE- Reggio inspired range of 'Learning-Play' products
Muralidhar Krishna Reddy and Ritu Sonalika, CMR University, India. . . . . . . 📄 (Full_Final-Submissions/papers/Muralidhar Reddy/Muralidhar-Reddy-TAKTILE-Reggio-inspired-range-of-'Learning-Play'-products.pdf)

Designing a pathway to holistic learning
Nrupaja Bhide, BAIF Development and Research Foundation, India. . . . . . . 📄 (Full_Final-Submissions/papers/Nrupaja Bhide/Nrupaja-Bhide-Designing-a-pathway-to-holistic-learning.pdf)

Playing Together a Learning Experience : ELeCT Curriculum & Human Factors in Design
Nutan Bharati and Dr. Gomathi Jatin Shah, TISS, India. . . . . . . 📄 (Full_Final-Submissions/papers/Nutan Bharati/Nutan-Bharati-Playing-Together-a-Learning-Experience-ELeCT-Curriculum-&-Human-Factors-in-Design.pdf)

DESIGNED TO PROPEL - Using Visual Design Principles to Promote Meaningful Learning in Constructivist Classrooms in K-5 Schools
Prachi Mittal and Vishnu Kant, Indian Institute of Art & Design (IIAD), New Delhi, India. . . . . . . 📄 (Full_Final-

Submissions/papers/Prachi Mittal/Prachi-Mittal-DESIGNED-TO-PROPEL-Using-Visual-Design-Principles-to-Promote-Meaningful-Learning-in-Constructivist-Classrooms-in-K-5 Schools.pdf)

Engaging Educational Interactions for Primary School Students
Pragati Saraf and Dr. Keyur Sorathia, Embedded interaction lab, IIT Guwahati, India. . . . . (Full_Final-Submissions/papers/Pragati Saraf/Pragati-Saraf-Engaging-Educational-Interactions-for-Primary-School-Students.pdf)

Children Storybooks Weaving Contemporary Stories with Indian Traditional Art forms
Dr. Prajakta Parvatikar, Rachana Sansad College of Applied Art and Craft, India. . . . . . . (Full_Final-Submissions/papers/Dr. Prajakta Parvatikar/Dr-Prajakta-Parvatikar-Children-Storybooks-Weaving-Contemporary-Stories-with-Indian-Traditional-Art-forms.pdf)

Conceptual models for better teaching and learning experience: An account of designing effective conceptual models for education kits of NCERT
Prakash Kumar and Prakrarti Pateria, Shiv Nadar University, India. . . . . . . (Full_Final-Submissions/papers/Prakash kumar/Prakash-kumar-Conceptual-models-for-better-teaching-and-learning-experience-An-account-of-designing-effective-conceptual-models-for-education-kits-of-NCERT.pdf)

Museum of Solutions
Preeti Goel Sanghi, Tanvi Jindal Shete, Mahika Shishodia, Shefali Bohra and Aishwariya Narvekar, JSW Foundation, India. . . . . . . (Full_Final-Submissions/papers/Preeti Goel Sanghi/Preeti-Goel-Sanghi-Museum-of-Solutions-Building-community-spaces-for-interactive-and-hands-on-learning.pdf)

Communing with Nature : Integrating Biophilic Design in Interior Environments of Play Schools
Puja Anand, Urmimala Bora and Alok Bhasin, Pearl Academy, India. . . . . . . (Full_Final-Submissions/papers/Puja Anand/Puja-Anand-Communing-with-Nature- Integrating-Biophilic-Design-in-Interior-Environments-of-Play-Schools.pdf)

Learning environments: Absorption or mere adsorption
Purvi Tank, Studio Saransh, India. . . . . . . (Full_Final-Submissions/papers/Purvi Tank/Purvi-Tank-Learning-environments-Absorption-or-mere-adsorption.pdf)

Play, Design, Education: a mutually beneficial ménage à trois. A model of epistemology and ontology for designers, educators, and… players
Rémi Leclerc, PolyPlay Lab, Hong Kong. . . . . . . (Full_Final-Submissions/papers/Remi Leclerc/Remi-Leclerc-Play-Design-Education-a-mutually-beneficial-ménage-à-trois-A-model-of-epistemology-and-ontology-for-designers-educators-and-players.pdf)

Theatre of the Imagination
Robert Pulley and Prof Ashley Hall, Royal College of Art, UK. . . . . . . (Full_Final-Submissions/papers/Robert Pulley/Robert-Pulley-Blueprint-Exchange-Revised.pdf)

Toys as child centric multisensory play way tools for learning: Case studies focusing on usage of Channapatna toys and Montessori didactic materials
Dr. Sampurna Guha, Asst. Prof, AIRS, Amity University, Noida, India. . . . . . . (Full_Final-Submissions/papers/Sampurna Guha/Sampurna Guha-Toys-as-child-centric-multisensory-play-way-tools-for-learning.pdf)

Bio-cultural Diversity and Sustainability Learning Curriculum for Maharashtra
Satish Awate, Centre for Environment Education, India. . . . . . . 📄 (Full_Final-Submissions/papers/Satish Awate/New -Bio-cultural diversity and sustainability learning curriculum for Maharashtra - Full Paper 27.01.2021.pdf)

Unconventional Vs Conventional PictureBooks in Post-globalization
Semini Pabodha Samarasinghe, University of Moratuwa, Sri Lanka. . . . . 📄 (Full_Final-Submissions/papers/Semini Samarasinghe/Semini-Samarasinghe-Unconventional-Vs-Conventional-PictureBooks-in-Post-globalization.pdf)

Designing play-based learning material under constraints
Shamin Padalkar, Rafikh Shaikh Prayas and Sutar Arunachal Kumar, Tata Institute of Social Sciences, India. . . . . 📄 (Full_Final-Submissions/papers/Shamin Padalkar/Shamin-Padalkar-Designing-play-based-learning-material-under-constraints.pdf)

A Qualitative Study to Create An Assisting Aid for Parents and Children with Special Learning Needs
Shraddha Chadha, National Institute of Fashion Technology, India. . . . . . . 📄 (Full_Final-Submissions/papers/Shraddha Chadha/Shraddha-Chadha-A-Qualitative-Study-to-Create-An-Assisting-Aid-for-Parents-and-Children-with-Special-Learning-Needs.pdf)

In search of Play: 3 Ways Children Combine Digital and Tangible Play
Shuli Gilutz, Tel-Aviv University, Israel. . . . . . . 📄 (Full_Final-Submissions/papers/Shuli Gilutz/Shuli-Gilutz-The-TAG-Play-framework-3-Ways-Children-Combine-Digital-and-Tangible-Play.pdf)

Matter Matters: The Transformative Power of Materiality in the 21st Century Classroom
Sneha Mehta, School of Visual Arts, Department of Design Research, Writing and Criticism, US. . . . 📄 (Full_Final-Submissions/papers/Sneha Mehta/Sneha-Mehta-Matter-Matters-The-Transformative-Power-of-Materiality-in-the-21st-Century-Classroom.pdf)

Using Programmable Toys to Develop Computational Thinking in Young Learners
Soorya Menon, Anand Ramaswami, Tarun Gangwar and Kshiteesh Kulkarni,
Next Education India Pvt Limited, India. . . . . . . 📄 (Full_Final-Submissions/papers/Soorya Menon/Soorya-Menon-Using-Programmable-Toys-to-Develop-Computational-Thinking-in-Young-Learners.pdf)

Tackling Anger in Children with Hearing Impairment
Sree Mahit Munakala, Chetan Manda and Sharmistha Banerjee, Indian Institute of Technology Guwahati, India. . . 📄 (Full_Final-Submissions/papers/Sree Mahit Munakala/Sree-Mahit-Munakala-Tackling-Anger-in-Children-with-Hearing-Impairment.pdf)

Designing a learning-integrated, play-inspired assessment framework for children aged 11-15
Srishti Mehrotra, National Institute of Design, India. . . . . . . 📄 (Full_Final-Submissions/papers/Srishti Mehrotra/Srishti-Mehrotra-Designing-a-learning-integrated-play-inspired-assessment-framework-for-children-aged-11-15.pdf)

The interplay of Design and Play as a way of learning - a pedagogical inquiry
Sudebi Thakurata, Srishti Institute of Art, Design &Technology and Depicentre Consulting *and Probal Banerjee*, Depicentre Consulting, India. . . . . . . 📄 (Full_Final-Submissions/papers/Sudebi_Thakurat/Sudebi_The Inter-play of design_and _play_as a way of learning a pedagogical inquiry.pdf)

Inclusive playgrounds for primary school children
Sukhdeep Singh, National Institute of Design, India. . . . .📄 (Full_Final-Submissions/papers/Sukhdeep Singh/Sukhdeep-Singh-Play-Spaces-and-Children.pdf)

Toys & tales: experiencing design process
Surabhi Khanna, National Institute of Design Haryana, India. . . . .📄 (Full_Final-Submissions/papers/Surabhi Khanna/Surabhi-Khanna-Toys-&-tales-experiencing-design-processs.pdf)

Preserving the tradition and culture of North East India through digital and interactive game based learning for children
Susmita Roy, Dr. Pankaj Pratap Singh and Abhijit Padun, Central Institute of Technology, India. . . . .📄 (Full_Final-Submissions/papers/Susmita Roy/Susmita-Roy-Preserving-the-tradition-and-culture-of-North-East-India-through-digital-and-interactive-game-based-learning-for-children.pdf)

A Journey Into Classroom Experience of Budding Designers in Creative Product Designing for Kids
T Srivani, National Institute of Fashion Technology, Hyderabad, India. . . . .📄 (Full_Final-Submissions/papers/T-Srivai-A-Journey-into-Classroom-Experience-of-Budding-Designers/T-Srivai-A-Journey-into-Classroom-Experience-of-Budding-Designers.pdf)

Integrating an Element of Play in Healthcare Environment for Children
Tanvi Singhal, Alok Bhasin and Puja Anand, Pearl Academy, India. . . . .📄 (Full_Final-Submissions/papers/Tanvi Singhal, Alok Bhasin and Puja Anand/Tanvi-Singhal-Integrating an Element of Play in Healthcare Environment for Children.pdf)

How to design a safe space for childrens tangible telling
Tina Klemmensen, Illustration by Tina Klemmensen, Denmark. . . . .📄 (Full_Final-Submissions/papers/Tina Klemmensen/Tina-Klemmensen-How-to-design-a-safe-space-for-childrens-tangible-telling.pdf)

Exploring Play and Learn Methodology and its effectiveness among Middle School Students in India
Upasna Bhandari and Dr. Deepak John Mathew, Indian Institute of Technology Hyderabad, India. . . . .📄 (Full_Final-Submissions/papers/Upasna Bhandari/Upasna-Bhandari-Exploring-Play-and-Learn-Methodology-and-its-effectiveness-among-Middle-School-Students-in-India.pdf)

Aspect of SUBTLENESS in the learning environment
Vaishali Borker, India. . . . .📄 (Full_Final-Submissions/papers/Vaishali Borker/Vaishali-Borker-Aspect-of-SUBTLENESS-in-the-learning-environment.pdf)

Tip Toe - A Multisensory Play Experience for Visually Impaired Children
Vasudha Sarin, National Institute of Design , Gandhinagar, India. . . . .📄 (Full_Final-Submissions/papers/Vasudha Sarin/Vasudha-Sarin-Tip-Toe-A-Multisensory-Play-Experience-for-Visually-Impaired-Children.pdf)

Design As A Methodology for Learning Other Subjects
Winifred and Anne Njine, Technical University of Kenya, Kenya. . . . .📄 (Full_Final-Submissions/papers/Winifred and Anne Njine/Winifred-Design-As-A-Methodology-for-Learning-Other-Subjects.pdf)