

Exploring the benefits of using LEGO® Serious Play® in Higher Education Institutions

Șerban Miclea

Politehnica University Timișoara, Romania
serban.miclea@upt.ro

Alin Emanuel Artene

Politehnica University Timișoara, Romania
alin.artene@upt.ro

Abstract

The main purpose of this research is to explore the benefits of the LEGO® Serious Play® (LSP) methodology within higher education institutions (HEIs), with emphasis on its application in the classroom environment. Although LSP is predominantly recognised as a business development tool, it has also been examined within HEIs as a methodology that supports collaborative, experiential, and personalised learning. Despite its proven effectiveness in business environments, the pedagogical and institutional potential of LSP in higher education remains comparatively underexplored. This study seeks to address this gap by examining how LSP can enhance learning, engagement, and meaningful participation among higher education stakeholders. Furthermore, the paper proposes that the benefits identified within teaching and learning contexts can be scaled across all three core activities in HEIs (classroom teaching and learning, academic research, and administrative processes) through a simple and transferable framework.

Keywords: LEGO® Serious Play®, Higher Education Institutions, hands-on approach, collaborative work, creativity, problem-solving, shared environment

INTRODUCTION

Initially used in the mid-1990s as an internal workshop tool to help the LEGO® company managers in rethinking the company's strategic direction, the LEGO® Serious Play® (LSP) methodology developed by Johan Roos and Bart Victor, can be defined as a facilitated process designed to enhance creative thinking, problem-solving and communication for individuals or teams within an organisation '(Roos, J., & Victor, B., 2018).' In 2001, Per Kristiansen and Robert Rasmussen with a team of highly dedicated people start building on the academic foundation laid by Johan Roos and Bart Victor, eventually by the end of 2012 throughout extensive iterations and refinement they transformed LEGO® Serious Play® (LSP) in a robust and scalable methodology '(Kristiansen, P., & Rasmussen, R., 2014).' Since then,

LEGO® Serious Play® (LSP) was used in various business contexts, management environments and market sectors and its' application continues to grow in global use by high profile organisations, representative examples include eBay, Google, IKEA, NASA, Nokia, Roche, The International Red Cross and Verizon Wireless '(James, A. R., 2013; Al-Jayyousi, O. R., & Durugbo, C. M., 2020).' Although, LEGO® Serious Play® (LSP) is well-known as an established business development tool used in organisations, the methodology was also tested and examined in Higher Education Institution (HEI) environments with students and staff for collaborative personalised learning '(Nolan, S., 2010).'

Through the years the LEGO® Serious Play® (LSP) methodology was successfully used, tested and explored by researchers in various Higher Education Institution (HEI) environments and contexts for academic staff and students' personal and professional development workshops '(James, A. R., 2013),' university students enrolled in teacher preparation programs '(McCusker, S., 2014),' active learning and threshold concepts understanding '(Barton, G., & James, A., 2017),' student training sessions for professional competencies '(Cerezo-Narváez, A., Córdoba-Roldán, A., Pastor-Fernández, A., Aguayo-González, F., Otero-Mateo, M., & Ballesteros-Pérez, P., 2019),' development of professional and communications skills for students '(Lear, E., Dann, S., & John, P. K., 2020),' co-creation sessions for academic research '(Al-Jayyousi, O. R., & Durugbo, C. M. (2020),' developing management, marketing and entrepreneurship skills '(Benesova, N., 2023; Ferreira, C., Robertson, J., Pitt, L., & Lord Ferguson, S., 2024),' cultivating responsible organizational leadership competencies '(Gkogkidis, V., & Dacre, N., 2021),' coaching students for a growth mind set '(Moore, M., & O'Sullivan, D., 2023),' students' proposals for digital transformations solutions '(Lucio-Nieto, T., & Martínez-Treviño, Y., 2024)' and enhancing postgraduate research capacity '(Ganiyu, I. O., Plotka, G., Seuwou, P., & Ige-Olaobaju, A. (2025).'

Based on the above examples related to curricula, teaching activities, research directions and institutional preoccupations, we can all agree that the higher education environment is a highly synergetic sector in terms of human and social interaction, collaborative and cooperative work, idea conceptualization and personal beliefs verbalization, throughout all its' specific activities, processes and procedures, that can fit under three core activities: classroom teaching, academic research, and administrative procedures. However, from an empirical point of view not all stakeholders from within the higher education institutions will embrace with ease and usually are reserved in pursuing or verbalising personal beliefs for new challenges related to activities, processes and procedures.

While this isn't a specific characteristic for the higher educational environment, it is more specific for human and social behaviour, especially in traditional organizational settings in which the organizational culture can inhibit personal expression '(Roos, J., Victor, B., & Statler, M., 2004)'. A recent study of 'McCusker, S. (2020),' pinpoints that using the LEGO® Serious Play® (LSP) methodology can create conditions, for all shareholders, under which such reservations are reduced, allowing a wider range of voices to contribute meaningfully towards approaching new challenges related to activities, processes and procedures.

RESEARCH APPROACH AND LITERATURE REVIEW

The research aims to investigate the benefits of the LEGO® Serious Play® (LSP) methodology across the three core activities of Higher Education Institutions (HEIs): classroom teaching, academic research, and administrative procedures. While the present paper focuses specifically on the application of LSP in classroom and workshop contexts, it proposes that the same core principles can be replicated and

scaled across all three areas through a simple and adaptable framework. Therefore, the research approach for exploring the benefits of the LEGO® Serious Play® (LSP) methodology was divided in two steps, firstly to review existing literature regarding observed or experienced benefits and secondly to present observed benefits from live LEGO® Serious Play® (LSP) sessions to create the simple and adaptable framework for Higher Education Institutions (HEIs).

The methodological principles, guidelines and etiquette of the LEGO® Serious Play® (LSP) methodology compile under a set activities in which participants engage in building individual models in successive structured rounds as a response to a question or challenge posed by the facilitator with the scope to express narrative shared responses and subsequently reflect on their meanings, progressively deepening understanding and moving towards the intended outcomes of the session plan.

Based on literature review regarding LEGO® Serious Play® (LSP) sessions we have identified the core benefits (which are in line with its methodological principles, guidelines and etiquette) that can be summarised as enhanced participation, improved communication, shared understanding and creativity stimulation, while all of these core benefits are accompanied by specific benefits for Higher Education Institutions (HEIs) related to the intended outcome of the LSP session such as creation of an effective learning environments ‘(James, A. R., 2013; McCusker, S., 2014; Barton, G., & James, A., 2017; Lear, E., Dann, S., & John, P. K., 2020; Gkogkidis, V., & Dacre, N., 2021; Wheeler, A., 2023; López-Fernández, D., Tovar, E., Gordillo, A., Gayoso-Cabada, J., Badenes-Olmedo, C., & Cimmino, A., 2024),’ enhanced creative, reflective and collaborative thinking (Ferreira, C., Robertson, J., Pitt, L., & Lord Ferguson, S., 2024; Medupin, C., Regalado, C., & Burrows, M., 2025), skill building based on hands-on learning experiences ‘(Moore, M., & O’Sullivan, D., 2023; Benesova, N., 2023; Lucio-Nieto, T., & Martínez-Treviño, Y., 2024),’ open and inclusive teaching and learning experiences ‘(Gwynn, C. P., Truyol, M. E., & Jerez, C. E., 2024; Ganiyu, I. O., Plotka, G., Seuwou, P., & Ige-Olaobaju, A., 2025; McCusker, S., 2020)’ and improvement in shared decision making for stakeholders ‘(Al-Jayyousi, O. R., & Durugbo, C. M., 2020; de Saille, S., Greenwood, A., Law, J., Ball, M., Levine, M., Vallejos, E. P., Ritchie, C., & Cameron, D., 2022).’

For the second step, the lead author being a certified LSP facilitator had organised LSP sessions over the past 3 years in various contexts involving senior year students and colleagues from the teaching staff, while the second author had meaningful and pertinent contributions regarding the improvement of the session flow and framework based on real time observations and his vast experience as a trainer in interdisciplinary research projects related to professional and career development.

LEGO® SERIOUS PLAY® SESSION PLAN AND FRAMEWORK

The session plan was designed in accordance with the core-principles, guidelines and etiquette implied by the LEGO® Serious Play® methodology, which due to limited space we will not further present them, however we point readers to explore the comprehensive research of ‘(Roos, J., & Victor, B., 2018),’ McCusker, S., (2020), ‘Al-Jayyousi, O. R., & Durugbo, C. M., (2020),’ ‘Gkogkidis, V., & Dacre, N., (2021),’ ‘Benesova, N., 2023)’ and ‘Medupin, C., Regalado, C., & Burrows, M., (2025).’

Our intended outcome of the LEGO® Serious Play® session plan, designed and presented in Table 1, was defined as a student networking activity for verbalizing future objectives (for personal development, career pathways, or entrepreneurial initiatives), receiving feed-back and to develop a structured understanding of how these goals can be achieved.

With the title of “Giving life to SMART objectives using LEGO® SERIOUS PLAY®”, the session was designed for 15-20 participants, arranged in groups of 3-5 in a standard classroom environment with modular desks. Each participant was provided with workshop materials (methodology booklet, LEGO® Window Exploration Bag and SMART objective worksheet).

The potential challenge in managing the diversity, complexity, and specificity of participants’ objectives within the allocated session timeframe (approximately 1.5–2 hours, depending on rhythm and flow), was compensated by the assistance of the second author who guided the groups in order for each participant to have the opportunity to build a model, share its’ story and reflect on its’ meaning.

Table 1: LEGO® Serious Play® session plan design

Task no.	Description	Question or challenge	Resources	Time (minutes)
Task 1	Starting the session -	Scope and outcome of the session.	Power Point Presentation, LSP materials, SMART objective worksheet	10-15
Task 2	Getting used with the bricks	Build a tower	LEGO® Window Exploration Bag	5 (for all participants)
Task 3	First twist	Tilt your tower at approximately 45°	The tower built in Stage 1 and nothing else	3 (for all participants)
Task 4	Short debrief	What happened and how it made you feel?	-	5 (for all participants)
Task 5	Getting to know the group	Build anything that you like, makes you happy or you enjoy doing	15 bricks (or less) + the minifigure from the LEGO® Window Exploration Bag	3 (building) + 1 (share with group)
Task 6	Second twist	Each will present their model like ...	LEGO® Window Exploration Bag and a list of random things/concepts related to the session theme	2 (per participant)
Task 7	The SMART objective	Build a new model that represents a SMART objective for your personal life, future professional career, or business idea	LEGO® Window Exploration Bag and SMART objective worksheet	5 (building) + 3 (adding the SMART elements) + 1 (presenting per participant)
Task 8	Getting serious	Create your commitment for your SMART objective	15 bricks (or less) + the minifigure from the LEGO® Window Exploration Bag	3 (building) + 3 (share with group)
Task 9	Wrapping up the session	Conclusions and feed-back	Online feed-back form	10 – 15 (for all participants)

The session begins with the facilitator presenting the scope and outcome of the session and introducing participants to the distinction between wishes and structured goals, guiding them toward formulating SMART objectives with the help of the LEGO® SERIOUS PLAY® methodology.

Through a series of progressive building tasks and unexpected “twists,” participants explore creativity, adaptability, and emotional responses, becoming aware of how external factors influence what they value and enjoy. The session ends in constructing a tangible representation of a SMART objective and committing to it, supported by reflection, feedback, and shared insights.

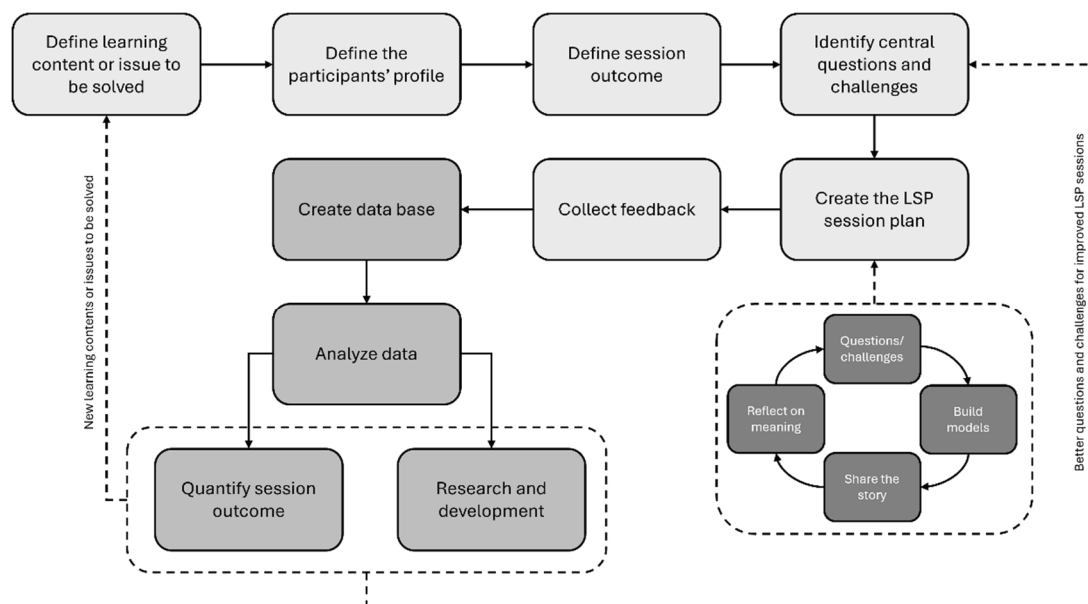
Figure 1 presents a small collection of towers and models build by participant during LSP sessions organised by the authors in different educational contexts (classroom activities and workshops) mostly for students that had basic knowledge regarding management, planning, organizing or objective setting.

Figure 1: Collection of towers and models built by participants



Figure 2 presents our vision regarding the simple and adaptable framework for LSP session in HEIs, illustrating a cyclical design where planning, execution, collecting feedback and data analysis are interconnected for assuring the facilitator to create future LSP sessions with improved questions and challenges for deepening understanding of the learning content or issues to be solved.

Figure 2: Proposed framework for LSP sessions in HEIs



Furthermore, we believe that based on the feedback and data analysis the framework also ensures continuous alignment and relevance to new learning needs or unresolved issues that might occur in the future for HEIs environments and contexts.

CONCLUSIONS AND DISCUSSIONS

Based on observations and feedback gathered after our LEGO® Serious Play® (LSP) sessions we have experienced the core benefits of the methodology, with an emphasis on enhanced participation, improved communication and knowledge retention through hands-on activities. Furthermore, the specific benefits aligned with the scope and intended outcome of our LSP session can be summarized as follows: the facilitation of more open and inclusive student–teacher interactions; the use of structured “twists” to stimulate critical thinking, particularly in the development of SMART objectives; and the creation of a more creative and engaging learning environment. Through model-building, students were able to explore multiple perspectives on the proposed questions and challenges, as well as on the objective-setting process itself. Overall, the session provided a vivid and dynamic learning experience that supported the meaningful development of personal SMART objectives.

The limitation of our study is represented by the focus on a single context and a specific LSP session, which limits the possibility to generalize the findings, additionally highlighting the need of future research in the field. However, we consider this an opportunity to further explore the benefits of LSP, investigating and comparing its’ effectiveness across different disciplines, departments and universities.

Given that the current socio-economic dynamics have a deep impact upon the wellbeing of any higher education systems and compel institutions to continually adapt their environments to remain relevant for future generations of students and employees, we stress out that higher education institutions should therefore adopt methodologies such as LEGO® Serious Play® (LSP) that enables the systematic generation of ideas or solutions from all stakeholders across activities, processes, and procedures, in order to enhance institutional performance and long-term adaptability.

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