ISSN: 2345-0479 / eISSN: 2345-0487

VILNIUS TECH
Vilnius Gediminas Technical University

CREATIVITY STUDIES

2026
Volume 19
Issue 2
Pages 594–601

https://doi.org/10.3846/cs.2026.23445

UNIVERSITY SPACE FOR STUDY, CREATIVITY, AND DEVELOPMENT ACCORDING TO PEDAGOGY STUDENTS: REALITY VERSUS EXPECTATIONS

Magdalena SASIN ✉, Monika MODRZEJEWSKA-ŚWIGULSKA, Anna MAJEWSKA-OWCZAREK, Martyna JUSTYŃSKA

Department of Art Education and Pedagogy of Creativity, Faculty of Educational Sciences, University of Łódź, ul. Pomorska 46/48, 92-223 Łódź, Poland

Article History:
- received 5 March 2025
- accepted 30 April 2025

Abstract. This paper presents the research results concerning the meaning of university space and its design for students. The issue of educational space is discussed in pedagogical research increasingly often; however, this still rarely concerns higher education, which is frequently treated as if it were independent from the space in which it takes place. During the study, verbal descriptions of desired university spaces were analyzed together with artworks on the same topic prepared by 276 pedagogy students at the University of Lodz in Poland. The results reveal a clear discrepancy between the educational spaces imagined by students and those that currently exist. For students, the shape and design of university buildings, their equipment, functions, and aesthetic qualities are highly important. Their expectations reflect social needs, their understanding of learning and teaching, and the need for freedom, especially in creative activity. A common feature of almost all analyzed works is the presence of qualities characteristic of Ray Oldenburg's so-called "third place": a neutral place that allows people to be with their friends, observe their surroundings, and present themselves to others. Today, "third places" are becoming increasingly important, yet this is still not adequately recognized in traditional university spaces. The design of university buildings should therefore reflect not only modern interior design trends but also a philosophy of education; awareness of educational goals and the needs of those who use these spaces should be the starting point for creating them. This paper contributes to filling the gap in academic reflection on the meaning of space in higher education, especially in relation to creativity.

Keywords: knowledge-based economy, higher education, pedagogy of creativity, educational space, third place.

✉Corresponding author. E-mail: ***magdalena.sasin@uni.lodz.pl***

1. Introduction

Dynamic transformations in the contemporary world have significantly affected all levels of education. In the traditional model, which emphasizes the transmission of information from teacher to student (Klus-Stańska, 2012), neither the needs of the present labor market nor the expectations of students who want to be active participants in the educational process are adequately met. A knowledge-based economy requires a redefinition of both educational goals and the tools used to achieve them (Nycz, 2013; Resnick, 2017). One such tool is educational space, described by Loris Malaguzzi as the "third teacher," after the parent and the school teacher (Cagliari et al., 2016).

For many years, actions aimed at improving education focused first on intellectual aspects such as teaching methods and later on emotional aspects such as relationships. More recently, greater attention has been paid to physical aspects because their importance in

Copyright © 2026 The Author(s). Published by Vilnius Gediminas Technical University

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

the course of educational processes has become more visible. Reflection on space must be linked with awareness of the goals of modern education (Paul, 2021). Memorizing information is no longer enough; the abilities to search for and select information, cooperate, and think creatively have become central. Constructivism emphasizes the learner's active role in building knowledge structures, while connectivism highlights the skill of finding information and creating relations between pieces of knowledge, especially through digital technologies (Downes, 2007).

Modern pedagogical approaches and active forms of study may be supported by properly organized educational space (Talbert & Mor-Avi, 2019). Yet most studies on this subject concern primary and secondary schooling (Clark, 2002; Nalaskowski, 2002), while higher education has remained relatively under-researched. University space has often been treated as neutral or independent from educational processes (Temple, 2008; Winnicka-Jasłowska, 2016). However, available studies suggest that students regard educational spaces as meaningful for learning outcomes (Beckers et al., 2015) and often consider functional attributes such as furniture, equipment, or silence even more important than purely aesthetic qualities. This is particularly important for pedagogy students, who are future teachers and may later transfer their own spatial habits and expectations into school practice.

This study focuses on the meaning of university space and its arrangements for students. It is based on descriptions created by pedagogy students who imagined a university space in which they would be willing to take up creative educational challenges. The research was conducted during the COVID-19 pandemic, which gives it an additional dimension. During the lockdown, educational space had to be radically redefined, and this intensified attention to its meaning. The study therefore seeks to fill a gap in reflection on academic education by connecting the question of space with the question of creativity.

Earlier studies have also shown the significance of space in adult learning. A well-designed university campus may stimulate interdisciplinary activity and encourage exchanges between representatives of different disciplines and generations (Friedman & Worden, 2016). Research on creativity indicates that adult creativity is shaped by environmental cues, especially visual stimulation and social spaces that support both formal and informal knowledge sharing (Lee & Lee 2023). Studies of higher education institutions in the Netherlands (Beckers et al., 2015) have shown a shift from a domination of traditional classrooms toward a greater presence of individual workspaces, informal study zones, and technologically equipped common areas. Researchers also note that university buildings often change more slowly than educational practices, which makes the users' perspective especially important.

Other scholars emphasize that university spaces should be designed in collaboration with all interested groups (Jamieson, 2003). Such spaces should offer comfort, aesthetic quality, and adaptation to various forms of activity. Flexibility is a key feature because educational spaces must respond to changing technologies and changing forms of interaction (*Designing Spaces*…, 2006; Imai & Ban, 2016). Universities remain important places of direct social contact even in the digital era, and innovative spaces can positively influence students' involvement, motivation, and activity during classes. Thornburg's idea of educational zones similarly suggests that learning requires differentiated spaces for listening to experts, peer interaction, individual reflection, and practical experimentation (Thornburg, 2014).

2. Conceptual framework

Methods

The research draws on grounded theory as a qualitative strategy (Denzin & Lincoln, 2005) and, more specifically, on Kathy Charmaz's constructivist approach (Charmaz, 2006). This perspective assumes that individuals create multiple realities and that theory should emerge from empirical data (Flick, 2007). In this study, the collected material consisted of visual works and verbal descriptions, which made triangulation possible and increased the reliability of the analysis.

The study was conducted at the Faculty of Educational Sciences of the University of Lodz[1] with first-year students enrolled in the two-year second-tier/MA pedagogy course[2]. There were 276 participants, the vast majority of whom were women, reflecting the feminization of these fields of study. The survey included 259 women and 17 men.

The study was guided by the question of how students imagine a university space in which they could develop themselves, study, and engage in creative activities with passion, dedication, and freedom. More specifically, the research asked: What should a university space look like so that students are willing to take up creative challenges related to academic education? What activities do students associate with the creative process? What spaces do students miss most at the university?

The research consisted of two parts. Students were first asked to prepare visual materials presenting imagined university spaces. They were then asked to prepare verbal materials that would explain or supplement their images. The task was preceded by an online meeting and accompanied by written and audio instructions intended to stimulate imagination. The study was conducted on the Moodle and Teams platforms between 2021 and 2023 during the online study period forced by the COVID-19 lockdown.

Although the original assumption was that the written descriptions would only supplement the visual works, they turned out to be exceptionally rich. Out of the 276 submitted works, 272 included descriptions, while 21 students wrote more than one description. In total, 297 descriptions comprising around 200 pages were analyzed. The material was therefore treated as a substantial and independent corpus of qualitative data.

3. Results

The first stage of analysis employed the AntConc tool to identify recurring words and contexts in the descriptions (Pawłowski, 2003; Laurence, 2005; Pawlikowska, 2012; Grabowski & Hebal-Jezierska, 2016). This initial step suggested two principal thematic areas: the properties of spaces supporting creative activity and the purposes or functions of those spaces.

[1] Lodz – city in Poland, Europe.

[2] Pedagogy courses in Poland may be completed in two stages, i.e. a three-year first-tier/BA course and a two-year second-tier/MA course. Pedagogy graduates may be employed in Poland as teachers in school clubs or youth clubs, carers in children's homes, support teachers (with additional training), social workers, art educators, or cultural and social animators.

To deepen the interpretation, coding and category building were then applied in line with grounded theory.

Two main dimensions emerged from the analysis. The first concerns the function of academic rooms and can be described as **one-dimensional versus multi-dimensional space**. One-dimensional spaces correspond to a traditional educational understanding of space: classrooms with a fixed purpose, usually oriented toward lectures, knowledge transmission, and teacher-centered arrangements. Students described such spaces as formalized, imposed, and school-like. In their view, they encourage passivity rather than initiative and creativity.

By contrast, multi-dimensional spaces were imagined as flexible, reconfigurable, and open to different forms of activity. Students wanted spaces where they could study, work individually and in groups, realize projects, pursue artistic interests, present their work, relax, prepare food or drinks, and build relationships. Such spaces were associated with community and informality; they were also imagined as available not only to students but also to teachers who would remain present outside the narrow framework of formal classes. Students emphasized that these spaces should facilitate communication, cooperation, and a more equal academic atmosphere.

The material also revealed a second dimension, concerning the emotional experience of space: **formal space versus space that feels like home**. Existing academic and school spaces were described as impersonal, monotonous, and emotionally cold. Students referred to empty walls, neutral or dull colors, locked cupboards, and surroundings dominated by parking spaces rather than greenery. By contrast, desired spaces were imagined as cozy, safe, warm, and emotionally supportive (Laurence et al., 2013). Their characteristic features included dimmed lights, pleasant textures, soothing sounds, quiet music, natural elements, and aromas associated with comfort and home.

These preferred spaces were not merely decorative. Students associated them with rest, emotional regulation, inspiration, and the possibility of being oneself. They wanted environments that would support both concentration and well-being. The desired academic space was thus meant to combine utility with emotional ease, and productivity with care.

On the basis of these two dimensions, five types of space were distinguished:

1. **Existing compulsion space** – offices and administrative spaces that students visit out of necessity and often perceive as unwelcoming.
2. **Existing reception space** – traditional lecture rooms, libraries, and computer rooms organized in ways that discourage cooperation.
3. **Existing space for filling time** – corridors, bars, cloakrooms, and toilets, used while waiting for classes or taking short breaks[3].
4. **Designed or imagined space for a creative pause** – patios, green areas, or relaxation zones intended for rest, conversation, and emotional regeneration.
5. **Designed space for creative activities and studying** – multifunctional rooms for project work, artistic expression, reading, discussion, and collaborative learning.

The contrast between existing and desired spaces was very strong. Existing academic spaces were described as monotonous, office-like, impersonal, and uninspiring. Students

[3] This expression appeared in one of the descriptions.

often felt there was no reason to remain in them longer than necessary. The imagined spaces, by contrast, encouraged staying, working, talking, and returning. They were designed as environments in which students could engage in individual projects, artistic work, group collaboration, and informal contact.

A recurring motif in the descriptions was flexibility. Students frequently preferred circles or U-shaped table arrangements rather than rows facing a teacher's desk. They wanted furniture that could be moved, spaces that could be divided or opened, and easy access to books, instruments, and artistic materials. This suggests that what they imagined was not simply a prettier classroom but a qualitatively different educational environment shaped by participation, agency, and freedom.

Another important feature of the desired spaces was their temporal openness. Students often imagined places that could be used before classes, after classes, and in between formal activities. They wanted to continue conversations, complete projects, drink tea, rest, or simply remain at the university in a meaningful way. Such descriptions imply that the university should not function only as a place of scheduled instruction, but also as a broader space of belonging.

The descriptions of artistic and creative activity were especially telling. Students referred not only to painting, music, literature, theater, sculpture, photography, and film, but also to the need for places where one could think quietly, pause, and regain energy. Creativity was thus associated with both expression and withdrawal, with both collaboration and solitude (Cangdon et al., 2014). The ideal educational environment needed to support these contrasting but complementary dimensions.

4. Discussion

The study confirms that, in students' view, space is an important part of the educational process. Its value does not lie only in facilitating formal didactic activity, but also in supporting creativity, relationality, motivation, and emotional well-being. Students' descriptions can be read as indirect statements about their unmet needs and about the model of higher education they would like to experience.

First, the study reveals a clear discrepancy between the existing spaces at the Faculty of Educational Sciences of the University of Lodz and the spaces imagined by the students. Existing rooms reflect a transmissive and hierarchical model of education, whereas the students' visions express a preference for autonomy, cooperation, and self-directed learning. Space therefore functions not only as a material background but also as a medium of power relations. In that sense, spatial change can become a symbol of emancipation and a sign of changing educational philosophy.

Second, the students' proposals correspond closely with contemporary didactic trends. They expect flexibility, individualization, and the possibility of using space in multiple ways depending on current needs. They also imagine more egalitarian relations between students and teachers, who should share spaces more openly rather than remain separated by rigid institutional boundaries. This indicates that students do not reject academic seriousness; instead, they redefine it in more collaborative and less authoritarian terms.

Third, the strong emphasis on relaxation zones, informal meeting places, and home-like elements suggests that many important student needs remain unsatisfied. The participants were not primarily concerned with redesigning lecture rooms alone. Rather, they focused on spaces with greater relational and emotional potential. This suggests that the university is expected to function as an everyday environment for study, rest, exchange, and personal development, not only as a site of formal instruction.

Fourth, the students' understanding of creativity appears somewhat one-sided. Creativity was linked above all with freedom, safety, comfort, and a sense of care. The less pleasant aspects of creative work – effort, frustration, discipline, and regularity – were much less visible. Artistic activity was frequently imagined as a sphere of release from restrictions rather than as a process requiring sustained struggle. This does not invalidate the findings, but it shows that students' representations of creative space are strongly shaped by a desire for relief from institutional pressure.

Fifth, students' aesthetic inspirations often came from contemporary interior design trends: open multifunctional rooms, movable elements, plants, decorative typography, and lounge furniture such as hammocks or armchairs. Yet the deeper meaning of these choices lay not in fashion alone, but in a desire for a university environment that would not resemble a conventional public institution. The "home-like" motif expressed a wish for emotional safety, authenticity, and the right to inhabit academic space more personally.

Sixth, the students' proposals also have practical implications. They point to the importance of acoustic comfort, natural light, access to food and drink, quiet corners, and spaces usable beyond formal teaching hours. These elements should not be dismissed as merely decorative or secondary (Coburn et al., 2017). They indicate that students understand learning as something distributed across many forms of activity: studying, discussing, resting, preparing, observing, and experimenting. The educational environment they imagine must therefore be differentiated rather than standardized.

Finally, almost all imagined spaces displayed the features of Ray Oldenburg's "third place." (Oldenburg, 1989)[4]. These were spaces neutral in tone, conducive to friendship, self-presentation, observation, and voluntary community. Although the students were asked to imagine a place for work and creativity at the university – something that in principle belongs to the "second place" of obligation – their descriptions repeatedly moved toward the logic of a "third place." This confirms the continuing relevance of Oldenburg's concept. It also suggests that students strongly need academic environments that satisfy emotional and social needs alongside cognitive ones.

The importance of this finding should not be underestimated. If the university offers no attractive places for informal presence, then its educational mission remains unnecessarily narrowed. A university that wishes to support creativity must provide not only classrooms but also places where people can remain together without strict supervision, move between focused work and casual interaction, and feel recognized as persons rather than only as recipients of instruction.

[4] The students do not use that term and most of them probably do not know that theory.

5. Conclusions and limitations

Use of space is itself a skill that must be learned. University space should provide students with opportunities to direct their own learning, assume responsibility, create task groups, cooperate with others, and use ICT as one of many sources of knowledge and consultation. In such a space, teachers remain important, but they are no longer the only center of the educational process.

The issue of arranging university space, which was the subject of this study, was clearly important for the participants. Therefore, this aspect of higher education should not be underestimated. The interior design of academic buildings should reflect not only current design trends but also a coherent philosophy of education, awareness of educational goals, and sensitivity to the needs of those who use these places. Education changes more quickly than buildings can adapt, and spatial change is inevitably time-consuming. Even so, all users of a given place should be involved in the process, and students' perspectives should not be overlooked.

The study has several limitations. It was carried out during the lockdown, when many participants had little or no direct physical contact with the faculty building. Their ideas were therefore shaped not only by actual university experience but also by remote learning, isolation, and extended experience of staying at home. This context must be taken into account when interpreting the results.

A further limitation concerns the analytical procedure. The students' writings were analyzed separately from their visual works, although both had originally been intended as complementary parts of the same task. Given the amount and richness of the material, their full joint analysis would have exceeded the scope of a single article. The present text should therefore be treated as the first part of a broader research project on the role of physical space in education. Future analyses may connect descriptions with artworks more closely and thus move from more verbal forms of educational research toward more art-based approaches.

AI Acknowledgements

We would like to thank Editage (Advanced Editing) (www.editage.com) for English language editing.

References

Beckers, R., Van der Voordt, T., & Dewulf, G. (2015). A conceptual framework to identify spatial implications of new ways of learning in higher education. *Facilities*, *33*(1/2), 2–19. https://doi.org/10.1108/F-02-2013-0013

Cagliari, P., Castagnetti, M., Giudici, C., Rinaldi, C., Vecchi, V., & Moss, P. (2016). *Loris Malaguzzi and the schools of Reggio Emilia*. Routledge. https://doi.org/10.4324/9781315778631

Charmaz, K. (2006). *Constructing grounded theory*. *A practical guide through qualitative analysis*. SAGE Publications.

Clark, H. (2002). *Building education*: *The role of the physical environment in enhancing teaching and research*. Institute of Education, University of London.

Cangdon, C., Flynn, D., & Redman, M. (2014). Balancing "We" and "Me": The best collaborative spaces also support solitude. *Harvard Business Review*. https://hbr.org/2014/10/balancing-we-and-me-the-best-collaborative-spaces-also-support-solitude

Coburn, A., Vartanian, O., & Chatterjee, A. (2017). Building, beauty, and the brain: A neuroscience of architectural experience. *Journal of Cognitive Neuroscience*, *29*(9), 1521–1531. https://doi.org/10.1162/jocn_a_01146

Designing Spaces for Effective Learning. *A guide to 21st century learning space design*. (2006). http://www.online-conference.net/jisc/content/designspaces.pdf

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2005). *The Sage handbook of qualitative research*. Sage Publications.

Downes, S. (2007). *Learning networks in practice*. National Research Council Canada.

Flick, U. (2007). *Designing qualitative research*. SAGE Publications. https://doi.org/10.4135/9781849208826

Friedman, J., & Worden, A. (2016). Creating interdisciplinary space on campus: Lessons from US area studies centers. *Higher Education Research & Development*, *35*(1), 129–141. https://doi.org/10.1080/07294360.2015.1128886

Grabowski, Ł., & Hebal-Jezierska, M. (2016). O różnych korpusowych metodach badawczych – próba krytycznej refleksji [On various corpus-based research methods – an attempt at critical reflection]. *Komunikacja Specjalistyczna*, *11*, 65–83.

Imai, R., & Ban, M. (2016). Disrupting workspace: Designing an office that inspires collaboration and innovation. *Ethnographic Praxis in Industry Conference Proceedings*, *1*, 444–464. https://doi.org/10.1111/1559-8918.2016.01103

Jamieson, P. (2003). Designing more effective on-campus teaching and learning spaces: A role for academic developers. *International Journal for Academic Development*, *8*(1–2), 119–133. https://doi.org/10.1080/1360144042000277991

Klus-Stańska, D. (2012). Wiedza, która zniewala – transmisyjne tradycje w szkolnej edukacji [Knowledge that enslaves: Transmissive traditions in school education]. *Forum Oświatowe*, *1/46*, 212–240.

Laurence, A. (2005). AntConc: Design and development of a freeware corpus analysis toolkit for the technical writing classroom. In *IPCC 2005*. *International Professional Communication Conference Proceedings* (pp. 729–737). IEEE.

Laurence, G. A., Fried, Y., & Slowik, L. H. (2013). "My space": A moderated mediation model of the effect of architectural and experienced privacy and workspace personalization on emotional exhaustion at work. *Journal of Environmental Psychology*, *36*, 144–152. https://doi.org/10.1016/j.jenvp.2013.07.011

Lee, J. H., & Lee, S. (2023). Relationships between physical environments and creativity: A scoping review. *Thinking Skills and Creativity*, *48*, Article 101276. https://doi.org/10.1016/j.tsc.2023.101276

Nalaskowski, A. (2002). *Przestrzenie i miejsca szkoły* [School spaces and places]. Oficyna Wydawnicza Impuls.

Nycz, R. (2013). W stronę humanistyki innowacyjnej. Tekst jako laboratorium. Tradycje, hipotezy, propozycje [Towards innovative humanities: Text as a laboratory. Traditions, hypotheses, ideas]. *Teksty Drugie*, *1–2*, 239–255.

Oldenburg, R. (1989). *The great good place*: *Cafés*, *coffee shops*, *community centers*, *beauty parlors*, *general stores*, *bars*, *hangouts*, *and how they get you through the day*. Paragon House.

Paul, A. M. (2021). *The extended mind*: *The power of thinking outside the brain*. HarperCollins.

Pawlikowska, A. (2012). Zastosowanie metod językoznawstwa korpusowego i lingwistyki kwantytatywnej w analizie dyskursu [Application of the methods of corpus linguistics and quantitative linguistics in discourse analysis.]. *Oblicza Komunikacji*, *5*, 111–125.

Pawłowski, A. (2003). Lingwistyka korpusowa – perspektywy i zagrożenia [Corpus linguistics – perspectives and challenges]. *Polonica*, *XXII–XXIII*, 19–32.

Resnick, M. (2017). *Lifelong kindergarten*: *Cultivating creativity through projects*, *passion*, *peers*, *and play*. MIT Press. https://doi.org/10.7551/mitpress/11017.001.0001

Talbert, R., & Mor-Avi, A. (2019). A space for learning: An analysis of research on active learning spaces. *Heliyon*, *5*(12), Article e02967. https://doi.org/10.1016/j.heliyon.2019.e02967

Temple, P. (2008). Learning spaces in higher education: An under-researched topic. *London Review of Education*, *6*(3), 229–241. https://doi.org/10.1080/14748460802489363

Thornburg, D. (2014). *From the campfire to the holodeck – creating engaging and powerful 21st Century learning environments*. Jossey-Bass.

Winnicka-Jasłowska, D. (2016). *Przestrzeń nauki współczesnego uniwersytetu*. *Rola badań przedprojektowych w programowaniu nowych funkcji wyższych uczelni* [The learning space of the contemporary university: The role of pre-design research in programming new functions of higher education institutions] [postdoctoral dissertation, Silesian University of Technology]. https://delibra.bg.polsl.pl/dlibra/publication/77479/edition/68568?language=en