

ENHANCING STUDENT ENGAGEMENT THROUGH MOVEMENT AND PROACTIVITY: A COMPARATIVE CLASSROOM STUDY USING AN ISO 26000 GAME*

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Abstract

This research paper examines how classroom movement influences student engagement during the introduction of the ISO 26000 standard. Using theories of active learning and embodied cognition, this study compares a specific teaching session delivered to two distinct master's-level classes at a business school, both exposed to identical learning objectives and content, but via different pedagogical modalities. In the first instructional setting, students were seated around a single table and introduced to the key principles of ISO 26000 through a card-based game. Each student drew a card that presented one element of the standard. Although the activity incorporated an element of gamification, students remained physically static throughout the session. Observational data revealed a rapid decline in attention, motivation, and curiosity, suggesting limited cognitive engagement. In the second setting, a world café methodology was used. Multiple tables were organized, each corresponding to one of the major themes of ISO 26000. Students rotated among the tables, engaging in brief collaborative discussions at each station. In this configuration, physical movement was an integral component of the learning process. Students demonstrated higher levels of participation, curiosity, and proactivity, as well as sustained attention over time. The contrast between the two experiences highlights the pedagogical value of movement as a catalyst for engagement and learning. These findings are consistent with research on active learning (Prince, 2004; Freeman et al., 2014; Park & Xu, 2024), embodied cognition (Sullivan, 2018; Zou et al., 2025), and the role of movement in enhancing cognitive processes and motivation (Garret, 2022; Oliveras-Ortiz et al., 2020). This presentation argues that integrating purposeful movement into instructional design can significantly enhance student engagement. It invites educators to reconsider classroom spatial organization and learner posture as central variables in the learning process. It proposes movement as a powerful lever for fostering proactivity and meaningful learning.

Keywords: *Active learning, student engagement, classroom movement, pedagogical innovation.*

1. Introduction

Active learning has become a central approach in higher education, particularly in disciplines requiring critical thinking and applied reasoning (Prince, 2004; Freeman et al., 2014; Park & Xu, 2024). It is usually defined as instructional approaches that engage students in meaningful activities rather than passive listening (Konopka et al., 2015; Hendrickson, 2021) and has been summarised as "*a student-centered approach to the construction of knowledge focused on activities and strategies that foster higher-order thinking*" (Doolittle et al., 2023). In fact, activity alone does not guarantee learning (Chi & Wylie, 2014). What matters is not simply participation; as Fredricks et al. (2004) underline, cognitive and emotional engagement require explanation, integration, and reflection.

This issue is particularly relevant in CSR strategy education (Schimperna et al., 2022). Teaching ISO 26000 requires students to understand the interconnected domains of social responsibility and stakeholder expectations (ISO, 2010). Sustainability education research highlights the importance of systems thinking and integrative reasoning in this context (Christou et al, 2024; Peretz, 2025). Although experiential and game-based approaches are widely used in CSR education (Waddock & Lozano, 2013; Park & Xu, 2024), their effectiveness depends on careful design and alignment (Romero & Kalmpourtzis, 2020; Silverthorn, 2020), and engagement may decline when activities are insufficiently structured (Mickael, 2006; Emblen-Perry, 2018).

* Use ChatGPT to summarize certain parts of the text and reorganize it. Use DeepL for translation. Use Grammarly to check linguistic quality and bibliography.

Recent work on embodied cognition suggests that movement and spatial organization can influence attention and conceptual integration (Garret, 2022; Oliveras-Ortiz et al., 2020). So, raises a practical question: "*How do spatial configuration and structured rotation shape engagement within active learning formats?*" To address this question, the present study compares two classroom implementations of the same ISO 26000-based CSR game that differ primarily in movement and spatial organization, to identify design principles for CSR strategy education.

2. Literature review

Active learning has become a central approach in higher education, especially in disciplines that require critical thinking and applied reasoning (Prince, 2004; Freeman et al., 2014; Park & Xu, 2024). It is generally defined as instructional approaches that engage students in meaningful activities rather than passive listening (Bonwell & Eison, 1991; Konopka et al., 2015; Hendrickson, 2021; Sullivan, 2018; Zou et al., 2025). Doolittle et al. (2023), after reviewing 161 definitions, describe it as "a student-centered approach to the construction of knowledge focused on activities and strategies that foster higher-order thinking."

Research distinguishes among behavioral, cognitive, and emotional engagement (Fredricks et al., 2004). Behavioral engagement refers to visible participation, whereas cognitive engagement reflects students' "investment in learning." Only forms of engagement that promote explanation, connection, and integration lead to durable understanding (Chi & Wylie, 2014). Emotional engagement captures the affective dimension of learning, reflecting students' sense of interest, value, and personal relevance, which in turn shapes their willingness to invest cognitively and sustain effort over time. Finally, what matters is not simply that students are active, but that they are constructively engaged.

This distinction is particularly relevant in CSR strategy education. Teaching ISO 26000 does not consist of presenting a list of principles to memorize. The framework addresses interconnected domains -governance, human rights, labor practices, environment, and others (ISO, 2010)- that must be understood in relation to one another. Students need to reason across themes, consider trade-offs, and integrate multiple stakeholder perspectives. Sustainability education research emphasizes the importance of systems thinking and stakeholder integration in this context (Christou et al, 2024; Peretz, 2025). For this reason, experiential and interactive approaches such as simulations and games are frequently used in CSR and management education (Waddock & Lozano, 2013; Claro & Esteves, 2021; Kozlovskaya, 2021), and some studies suggest they can even transform students' mindsets (Žmuda et al., 2015; Bindumenon, 2024).

At the same time, interactive formats are not automatically effective. Engagement may decline when activities become repetitive or insufficiently structured (Michael, 2006; Emblen-Perry, 2018). Meta-analyses show that active learning improves performance when it incorporates explanation, retrieval, and discussion (Freeman et al., 2014), but its effectiveness depends on careful design, alignment with assessment, and contextual conditions (Romero & Kalmpourtzis, 2020; Silverthorn, 2020).

Recent work on embodied cognition further suggests that learning is partly grounded in sensory and motor processes (Garret, 2022). Movement and spatial organization can influence attention, memory, and conceptual integration (Medina, 2014; Oliveras-Ortiz et al., 2020; Sullivan, 2018; Zou et al., 2025). Pedagogical formats that include rotation or spatial segmentation may therefore support deeper engagement by helping students structure and connect ideas. In the case of ISO 26000, a rotational format can reflect the framework's systemic architecture, encouraging what Chi and Wylie (2014) describe as "constructive" engagement rather than mere activity.

3. Empirical study

This study adopts a comparative pedagogical case design to examine how different configurations of active learning influence student engagement in CSR strategy education. Rather than comparing active learning to lecturing, it contrasts two implementations of the same ISO 26000-based CSR game, focusing on how spatial organization and movement affect engagement.

Both two-hour sessions were conducted in the same Business School course, at the same academic level, with identical learning objectives and the same instructor. ISO 26000 was presented as a strategic framework addressing interconnected domains of social responsibility, to foster integrative reasoning across themes.

In Group 1, 28 students worked at fixed tables with CSR cards, analyzing and categorizing them within two stable teams. Although initially engaged, concentration and discussion intensity declined after about 30 minutes. In group 2 (30 students), the same materials were distributed across themed stations, and five teams of students rotated among the tables at regular 10-minute intervals. This format introduced movement and repeated transitions, and engagement remained high throughout the session.

The analysis used a comparative interpretive approach, contrasting observational data across three dimensions: behavioral, cognitive, and emotional engagement, with particular attention to the role of spatial configuration and movement in sustaining engagement.

The comparison of the two ISO 26000 game formats shows that active learning does not automatically produce sustained engagement. In both groups, students were initially behaviourally engaged, but important differences emerged over time. In the static table-based format, concentration and discussion intensity declined after approximately thirty minutes, and interactions became more procedural than exploratory. In contrast, the rotational station-based format maintained high levels of participation throughout the session. The structured transitions and physical movement appeared to reactivate attention and renew energy. More importantly, differences were visible at the cognitive level. In the static format, discussions focused mainly on categorizing content within ISO 26000 domains. In the rotating format, students increasingly made connections between topics and recognized interdependencies among subject areas. For example, they realized that they were not always able to distinguish between core subjects and that they overlapped. The spatial segmentation of topics encouraged comparisons and changes in perspective. Emotional engagement also remained higher in the rotational group, with students expressing greater enthusiasm and willingness to continue. Overall, the findings suggest that while both formats were “active,” only the rotational design sustained behavioural, cognitive, and emotional engagement simultaneously. The results, therefore, support the argument that micro-level design features -particularly movement, spatial organization, and structured variation- play a crucial role in fostering constructive engagement in CSR strategy education.

4. Discussion

The findings of this study suggest that, for Business School instructors, the effectiveness of active learning depends not simply on the use of interactive tools but also on how those tools are structured. Although both groups engaged in the same ISO 26000 game, only the rotational format sustained behavioural, cognitive, and emotional engagement, reinforcing the idea that activity alone does not guarantee meaningful learning (Chi & Wylie, 2014). In the static format, discussions gradually became procedural, whereas the rotational format-maintained intensity through structured transitions and movement. This corroborates research showing that active learning is more effective when it promotes explanation and reflection rather than superficial participation (Freeman et al., 2014). For instructors, introducing pedagogical rhythm and variation can help prevent attentional decline (Bligh, 2000). Physical movement -such as rotating between tables- may serve as a practical cognitive reset, consistent with insights from embodied cognition research (Barsalou, 2008; Glenberg, 2010).

Moreover, spatially organizing content into thematic stations can make the interconnected structure of frameworks such as ISO 26000 more visible. Sustainability education scholars emphasize that CSR learning requires systems thinking and stakeholder integration (Sterling, 2004; Wiek et al., 2011). Rotational formats can operationalize these objectives by encouraging comparison across domains and perspective shifts. In this sense, classroom design becomes part of constructive alignment (Biggs & Tang, 2011), ensuring coherence between learning objectives and pedagogical form. For Business School instructors teaching complex, multidimensional subjects, spatial configuration and movement should therefore be considered deliberate pedagogical strategies rather than logistical details. Small structural adjustments in classroom organization can significantly influence the depth of engagement with strategic sustainability concepts.

5. Conclusion & limitations

Research on embodied cognition further suggests that spatially distributed and movement-based formats can enhance attention and memory (Barsalou, 2008; Glenberg, 2010). This is particularly relevant in sustainability and CSR education, which require systems thinking and stakeholder integration (Sterling, 2004; Wiek et al., 2011). Nevertheless, little research examines how micro-level design choices -such as spatial configuration or structured rotation- shape engagement within active learning formats. To address this gap, the present study compared two ISO 26000-based game designs that differed in movement and spatial organization to derive pedagogical principles for CSR strategy education.

Constructive alignment theory posits that learning activities should be coherently aligned with intended learning outcomes and assessment methods (Biggs & Tang, 2011). Extending this logic, pedagogical form should also reflect the discipline's epistemological structure. CSR strategy is normative, relational, and systemic. It requires perspective-taking, integration of stakeholder claims, and evaluation of trade-offs. When learning environments mirror the systemic nature of CSR -through thematic segmentation, circulation, and comparison- they may facilitate deeper integration. Rotational pedagogies can simulate

stakeholder plurality by exposing students to multiple thematic centers, encouraging perspective shifts and relational reasoning (Wiek et al., 2011). The question, therefore, is not whether active learning should be used in CSR education, but how it should be structured to reflect the field's inherent complexity and pluralism.

This study is based on personal observations of two approaches to teaching CSR in a Business School classroom. As such, its conclusions remain exploratory. The comparison was conducted within a single course context and relied primarily on observational evidence rather than systematic measurement. To strengthen the validity of these findings, future research should test the impact of rotational versus fixed teaching formats in a more formal and controlled manner. This could include implementation across different types of classes, academic levels, and institutional settings. The use of structured questionnaires or validated engagement scales would also allow for a more precise assessment of behavioral, cognitive, and emotional engagement. Such empirical validation would help determine whether the observed benefits of the rotational format are generalizable beyond this specific teaching context.

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