## **Referencing Exercise**

Each of the following pages represents an item you might put into a reference list: books, journal articles, web page and map. (Note: there are many other types of resource you might reference, these are just common ones for example.)

Examine the details for each item and construct an APA 7<sup>th</sup> edition reference for each item. You should use Referencing@Portsmouth <a href="https://library.port.ac.uk/ref/page2.html">https://library.port.ac.uk/ref/page2.html</a> to find templates and examples to follow.

Create a reference list of all the items in the correct order for a reference list – not the order found here.

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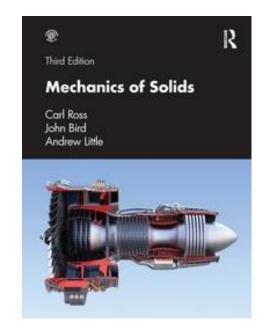
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### Buildings and civil engineering works — Procedures for setting out, measurement and surveying — Vocabulary

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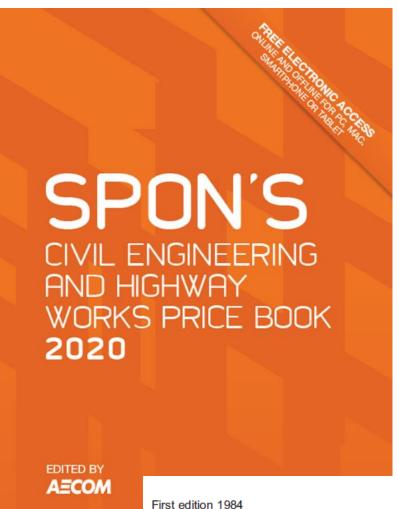
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## Construct-it: A board game to enhance built environment students' understanding of the property life cycle

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#### Abstract

This article investigates the development of a board game entitled 'Construct-it' as an innovative pedagogical approach (as proof of concept) to augmenting the applied knowledge and understanding of built environment students studying property life cycle analysis. A largely qualitative and inductive methodological approach is conducted to identify and investigate the various pertinent theoretical frameworks that could be adopted; conduct a critical synthesis of extant literature; and develop Construct-it, a game intuitively grounded in practice-based knowledge. The study reveals that games provide a fun, engaging and challenging means of educating students at higher education institutions. It also notes a significant dearth of literature in terms of applying games to students enrolled on built environment programmes. Construct-it can enhance the student's learning experience and knowledge of pertinent industry practice and standards and can complement traditional dassroom teaching approaches. The study concludes with directions for the future work required to enhance the development of the novel pedagogical proof of concept presented. Such work will require robust testing and validation of the game to measure its impact on the student learning experience.

#### Keywords

Built environment students, Construct-it, educational games, innovative pedagogical approach

Play and games are considered to be fundamental aspects of human endeavour that are embedded in our society and culture (Roberts et al., 1959). They allow for suspension of reality and freedom from ordinary life (Caillois, 1961; Huizinga, 1955). Due to their compelling nature, games have also been applied and utilized in various arenas of education as an innovative pedagogical approach to enhancing the knowledge and performance of students (Braghirolli et al., 2016). Games can be used to engender the creation of new learning environments by integrating thinking, social 'collaborative' interaction and technology

(Kafai et al., 1998). This application of gameplay has been capitalized on by several educational sectors, including health studies, to train students in, for example, the better diagnosis of patients (Gibson and Douglas, 2013); business

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# Structural determinants of graduate employability: impact of university and industry collaborations

1080

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#### Abstract

Purpose – The purpose of this paper is to examine the impacts of university and construction industry collaborations (UIC) activities in developing the employability of built environment graduates.

Design/methodology/approach — This study adopted a quantitative approach wherein data was obtained from professionals across academia, construction industry and government establishment within the South African built environment. A total of 204 questionnaires were administered to these professionals to provide information regarding the subject matter under question. Structural equation modeling (SEM) was adopted to examine possible relationships among identified factors that were obtained from a review of extant literature. SEM was performed using analysis of moment structures (AMOS Graphics, version 26) in testing the model and a best-fit was achieved after various model selections and validation tests were conducted.

Findings – The final model revealed that graduate employability can be improved through UIC as effective university-industry linkages provide students with mentoring opportunities and exposure to relevant training which improves their job market prospects and ultimately increases their professional relevance in the long run.

Practical implications – To continuously enhance the employability of students before graduation, universities are required to foster collaborations with the industry as such linkages are critical to the development of the future custodians of the construction industry.

Originality/value — There have been several generalized statements as to which of the UIC activities contribute to graduate employability. Therefore, through the use of SEM using AMOS, it was possible to state precisely the UIC constructs that are statistically significant and contribute to graduate employability.

Keywords Active learning, Graduate employability, Pedagogy, Structural equation modeling, University industry collaboration

Paper type Research paper



#### 1. Introduction

Higher education institutions (HEIs) across the globe have continuously been viewed as training centers that can develop human capital, which eventually contributes to a nation's innovation and development (Hansen and Lehmann, 2006; Feng et al., 2010). Their roles in

ion have earmarked them as key drivers of innovation and key agents of According to Ssebuwufu et al. (2012) and Garcia et al. (2019), higher wide students with the requisite understanding of construction and its through their undergraduate programs. However, the traditional aches are simply not enough as universities seek to accomplish their

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