Evidence-based sustainable design strategies in the built environments

Islam M Obeidat, Saif Obeidat

Introduction

The evidence-based sustainable design tool is a design tool created to aid participants during the design and decision-making process and implementation phase of sustainable design projects. It guides users in collecting background information, defining problems and objectives, assessing and selecting tools and methods, evaluating alternatives and solutions, recording the process, and monitoring and measuring progress and outcomes. It is also designed to be an information-sharing tool for participants and stakeholders.

Problem statements

Growing demand for sustainable design and a shortage of evidence-based design requires more knowledge and application of sustainable design principles.

Research purposes

The purpose of this study is to discuss the benefits of using evidence-based design in process for sustainable interior design.

The objectives of the study

The objective of this study is to involve owners, developers, interior designers in developing evidence-based design strategies for sustainable settings and in evaluation of those settings to improve the physical environment that lead to better outcomes.

The significance of the study

This study seeks to utilize evidence-based sustainable design strategies in the built environments to create healthier, safety, and more productive environments for occupants. This study will assess the potential benefits of using evidence-based design as a tool of the design process in sustainable design. The study strives to present advantages of the evidence-based design through the use of sustainable design. Also, this study will investigate interior designers to understand of how evidence-based design affects knowledge and application of sustainability principles, and assessed whether such understanding influences their making-
decision in solving design problems. Therefore, this study will examine how evidence-based
design of the person, process, and product (outcome) and the cognitive stages of the design
process (i.e., readiness, reception, reflection, revelation, and recreation) will express in an
sustainable design to gain an understanding of the creative decision making process.

**Research Questions**

How can sustainable design assist interior designer to gain better
evidence in applying sustainable principles to design process?

**Methodology**

A review of literature relating to evidence-based design and sustainable design
was conducted. Also, a model was developed to quantify the relationships between
evidence-based design and the sustainable design based on the prior studies.

**Findings**

Evidence-based sustainable design tool (1) is flexible and applicable to different situations;
(2) measured advancement towards sustainability using easily understood criteria (3), is easy
to use, (4) provided supporting evidence for presenting proposals to stakeholders; and (5) had a
framework for clearly organizing the complex information involved in achieving sustainability