Improving School Design through Diverse Stakeholder Participation in the Programming Phase

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Abstract : The architectural design process, in general, is becoming more complex, as new technical, social, environmental, and economical requirements are imposed. For school buildings, this scenario is also valid. The quality of a school building depends on known design criteria and professional knowledge, as well as feedback from building performance assessments. To attain high-performance school buildings, a design process should add a multidisciplinary team, through an integrated process, to ensure that the various specialists contribute at an early stage to design solutions. The participation of stakeholders is of special importance at the programming phase when the search for the most appropriate design solutions is underway. The composition of a multidisciplinary team should comprise specialists in education, design professionals, and consultants in various fields such as environmental comfort and psychology, sustainability, safety and security, as well as administrators, public officials and neighbourhood representatives. Users, or potential users (teachers, parents, students, school officials, and staff), should be involved. User expectations must be guided, however, toward a proper understanding of a response of design to needs to avoid disappointment. In this context, appropriate tools should be introduced to organize such diverse participants and ensure a rich and focused response to needs and a productive outcome of programming sessions. In this paper, different stakeholder in a school design process are discussed in relation to their specific contributions and a tool in the form of a card game is described to structure the design debates and ensure a comprehensive decision-making process. The game is based on design patterns for school architecture as found in the literature and is adapted to a specific reality: State-run public schools in São Paulo, Brazil. In this State, school buildings are managed by a foundation called Fundação para o Desenvolvimento da Educação (FDE). FDE supervises new designs and is responsible for the maintenance of ~ 5000 schools. The design process of this context was characterised with a recommendation to improve the programming phase. Card games can create a common environment, to which all participants can relate and, therefore, can contribute to briefing debates on an equal footing. The cards of the game described here represent essential school design themes as found in the literature. The tool was tested with stakeholder groups and with architecture students. In both situations, the game proved to be an efficient tool to stimulate school design discussions and to aid in the elaboration of a rich, focused and thoughtful architectural program for a given demand. The game organizes the debates and all participants are shown to spontaneously contribute each in his own field of expertise to the decision-making process. Although the game was specifically based on a local school design process it shows potential for other contexts because the content is based on known facts, needs and concepts of school design, which are global. A structured briefing phase with diverse stakeholder participation can enrich the design process and consequently improve the quality of school buildings.

Keywords : architectural program, design process, school building design, stakeholder