

Council and governments at all levels, prefabricated buildings will account for 30% of new buildings in the next 10 years.

**Conclusions:** At the theoretical level, prefabricated buildings have the following advantages: (1) Good safety performance; (2) High resource utilization; (3) Fast construction speed; (4) Low marginal cost, etc. However, in the application level, prefabricated buildings are still subject to the following disadvantages: (1) Low level of information; (2) There are many participants; (3) Complex collaborative tasks, etc. These disadvantages lead to the theoretical advantages cannot be effectively translated into practical results. How to reverse the disadvantages and turn them into advantages? The most scientific method is to use informatization as the main line to improve the informatization degree of the whole production chain of BIM design and assembly buildings, and drive the whole life cycle of building products from data.

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## RESEARCH ON BARRIER FREE DESIGN OF HOUSEHOLD PRODUCTS BASED ON DESIGN PSYCHOLOGY

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**Background:** The causes of population aging are the decline of birth rate, mortality and long average life expectancy caused by social development, the improvement of living standards, the change of lifestyle and the change of fertility concept. The phenomenon of population aging is the product of the development of human society to a certain stage, reflects the progress of human society, and is the basic feature of the development of the times.

**Subjects and methods:** Nowadays, more and more countries in the world have entered an aging society. In China, there are about 130 million elderly people. In the current situation of aging population, we need to design products suitable for the elderly. Due to various restrictive factors, most of the activity space for the elderly is indoors. Therefore, household products closely related to the daily life of the elderly have become very important. Since then, there are few household products designed for the elderly in the market, and many products are not suitable for the elderly. The purpose of this paper is to design barrier free household products for the elderly. Taking the design of household products for the elderly as the research object, this topic expounds how the barrier free design of household products for the elderly combines the psychological and physiological characteristics of the elderly. It is also an exploration of the design and development of household products for the elderly, which can enrich the product market, and has practical significance for the establishment of Chinese home style and the development of Chinese home industry. In addition, it will also provide some reference value for interior designers in elderly home design.

**Study design:** Barrier free household products refer to general household products for the elderly. The physical, psychological and social changes of the elderly make them have many special requirements for the products they use. In terms of physiological characteristics, the physical function of the elderly is degraded, and the behavioral space and environmental facilities need to compensate for their lost ability, maintain and exercise their remaining ability. In terms of psychological characteristics, the elderly is afraid of discrimination and loneliness, and need to make extensive contact with relatives and friends to seek comfort; In terms of social characteristics, they hope they can do something, enjoy and treat. These changes and demands focus on the research scope of barrier free product design suitable for the elderly.

**Methods of statistical analysis:** This research adopts the interdisciplinary research method. From the perspective of sociology, demography, physiology, design psychology, ergonomics, aesthetics, product semantics and other disciplines, this paper discusses the design of household products for the elderly, makes a comprehensive analysis with the method of horizontal connection, deeply analyzes the proposition, and expands and extends the appropriate design theory. Use different elements to flexibly apply theory to guide the design of household products for the elderly, prove the theory with practice, and help practice with theory.

**Results:** The barrier free design concept is integrated into the design process of household products for the elderly, which reflects the humanistic care, ergonomic factors, aesthetic factors, culture and lifestyle factors. Barrier free design of psychological products for the elderly is a hot topic in the current design field, which should be paid enough attention by designers and all domestic enterprises. In the design process of household products for the elderly, the body size model of the elderly is established by applying anthropometry theory, anthropometry experiment and probability statistics method, so as to provide basis for the design. Summarize the barrier free design principles of household products for the elderly reflecting

humanistic care, which are: taking the elderly as the core principle, ease of use principle, suitability principle, man-machine suitability principle, innovation principle and environmental safety principle. Apply the barrier free design method of household products for the elderly to the design practice.

**Conclusions:** The research process of this subject introduces the theory of design psychology into the design works of barrier free household products for the elderly, breaking the boundaries of the discipline. Reexamine the concept of barrier free design, obtain a reasonable size range through anthropometry related knowledge and statistical analysis of a large number of data, so as to provide basis for follow-up in-depth research. This subject is an application subject involving many disciplines and fields. It enriches the design ideas and methods of products used by the elderly. If we continue to study on the basis of this subject, we believe that its results are of great value to the design of household products for the elderly in China.

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## ON THE REFORM OF LOGISTIC MANAGEMENT MODE IN COLLEGES AND UNIVERSITIES UNDER THE BACKGROUND OF LOGISTIC THINKING OBSTACLE

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**Background:** In the development of college education, logistics management is a vital part of college management. Colleges and universities, as the base of education in our country, are responsible for the education of students and the cultivation of talents. As a management department of the living, studying and experimental environment for teachers and students, the quality of logistic service directly affects the teaching environment and guarantees the development and reform of college teaching. In the logistic management of colleges and universities, logistic support services include a wide range of contents, such as basic support services such as water supply, power supply and environmental sanitation; teaching services such as laboratory instruments and teaching studios; and living services such as catering, medical treatment and accommodation for students. Compared with many foreign universities, the logistic management in our country is complicated and extensive, the work content is scattered and changeable, and it involves some social service functions, so the work is difficult. Although with the development of social economy and education, the logistic work of colleges and universities has been gradually improved, and some standardized and institutionalized logistic management mechanism has been established to guarantee the logistic service level of colleges and universities. However, from the position of colleges and universities in the field of education, the current logistics management model cannot provide effective services for the development of colleges and universities. In other words, the university's rear service work is in the university construction work quite painstakingly quite tired work. Therefore, if the logistics want to continue to develop, we need to combine the logistics management with social development, optimize the management model to improve the quality of logistics services. Therefore, the logistic management of colleges and universities needs to optimize the information technology, management idea and method of logistic management based on the particularity of late service. Therefore, in the digital logistics management, we can closely collect social service data and standards, effectively grasp the quality-of-service needs of teachers and students, and can combine the service evaluation of teachers and students, and constantly improve logistics services. In the traditional logistic management, logistic management is defined as low technical content, manual labor, only need to work seriously, do not need to spend mental energy to complete the logistic management. However, under the influence of the digital revolution, the logistic management equipment tends to be intellectualized and automatic, and the related logistic management concepts must be updated to improve the quality of logistic management. Therefore, the traditional management cannot meet the needs of intelligent management, and it needs advanced management concepts and methods to provide support and guarantee for the management. Therefore, the logistic administrators of colleges and universities should pay attention to enhance their own thinking logic and management quality, and strengthen the knowledge cultivation of digital and intelligent service. In the management mode, the traditional manual management is changed into intelligent and systematic management, the management content is more scientific and comprehensive, and the management mode is also automatic.