

## **Abstract**

The point of this research is to study the operating difficulties, comprehension ability, identify ability, etc when the aged users operating the product interface. The research is separated into four sections, the first section is the bibliography researching. Through the collecting and analyzing the references we know that the aged users would be effected by psychology degenerating operating product interfaces. All product interfaces informate the users by vision but the aged users are hard to operate complicated interfaces.

We know by the reference, also, the interface operating forms could be words, illustrations, colors, sounds, tactile sense, and lightings to show the users functions of products, especially for aged users. For the reason, the second section is the aged users' house living research. As the result, microwave oven is necessary for aged living. It's important to provide a safe and convenient using environment in three meals (breakfast, lunch and supper) activities everyday life. The third section goes forward to research the microwave oven interface operating preference, minimum identification, and acceptability etc, to find a suitable interface operating form to be the base of the fourth section. Base on the results of last two sections, the fourth section improve the microwave oven operating interface, and make different interface operating forms satisfaction research for the aged users.

As the result shows, the interaction of multi-medium (sounds, tactile sense, colors, lightings, etc) helps the aged users operating interfaces indeed. The interface with single-medium (only vision interface) makes the aged users hard in reading and identifying. Therefore, the aged users are not willing to try operating the microwave oven. The functions read and identified by multi-medium interface makes the aged users operating the functions correctly in the using process by the introduction and hint form different mediums. The multi-medium interface also benefits more users in different generations operating product interfaces. The results of this research are not only used in designing the microwave oven interface, but also in other product interfaces.

**Keywords** : Aged user, Microwave oven, Interface operating form