5 Conclusions

Fuzzy data are needed in realistic world. In social science traditional statistic model sometimes could not have good explanations. To success this, fuzzy statistic model are needed. In this paper we propose a directly idea based on GSP without too many mathematical theories which could preserve the human thoughts more precisely and simply. In fuzzy statistics, there are few tropics talking about nonparametric tests with fuzzy data. Some limit the types of fuzzy data. In this paper, we propose a general method for nonparametric tests with fuzzy data that can deal with trapezoid, triangular, and interval-valued data simultaneously.

These points of view proposed in this paper could help researches have more reasonable interpretations than traditional ones under some uncertain situations and solve the question for constructing continuous fuzzy data. But there are still some shortages need to be solved in the future. Additional research issues for further investigation are expressed by question such as follows:

(1) Our fuzzy questionnaire only can be done on the computer with the software GSP.

(2) Our ranking method is not appropriate for concave fuzzy data.

(3) How to record the membership function on line, especially when the sample size is large.

(4) How to show that this fuzzy sample survey can better illustrate real status than traditional ones?