## The Effect of Seating Arrangement on the Interactions in the Classroom and Learning Achievement. - An Example of Chiayi Elementary School.

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## Abstract:

Parents wish their children have the best learning achievement, and they believe that sitting in the front will ensure a better learning result. How does seating arrangement influence learning and interaction in the classroom? This research aimed to evaluate the effect of seating arrangement on the interactions in the classroom and learning achievement. This research was carried out at an elementary school in Chiayi. An experimental design (manipulating seating arrangement) was used. Two types of seating arrangements teacher- assigned and student- selected were used in this study. Three types of interactions in the classroom were measured, including verbal interactions, attempted participations and peer interactions. The data collection process included classroom observation, focus group interview during the semester; in addition a questionnaire survey was carried out at the end of the semester. The quantitative methods got the initial results and the qualitative methods did the research deeply. Students' learning achievement was measured in terms of their performance on the monthly tests.

The major findings were as follows: 1) The action zone is located in the central and right of the front seats, both under teacher- assigned and student- selected condition. This action zone was more obvious when students selected their own seats. 2) The action zone is not inevitably formed by environmental factors. It was also related to the students' interaction types. There were no significant front- rear difference in verbal interaction between students of high and low interaction type; only students of moderate interaction type would produce higher interaction when sitting in the front than in the rear. 3) There is no significant difference in attempted participation among all kinds of interaction types. 4) In the teacher- assigned seating condition, those seating in the rear produced significantly higher peer interaction than those in the front, but in the student- selected condition, there was no significant difference between the two zones. 5) There is no significant difference in learning achievement among all kinds of interaction types. 6) In the teacher- assigned seating condition, attempted participation was positively correlated with learning achievement; in the student- selected condition, attempted participation and verbal interaction were positively correlated with learning achievement, but peer interaction was negatively correlated with learning achievement.

key words: seating arrangement, interaction, learning achievement.