

ISF — Institute for Interdisciplinary School Research

Dr. Gerhart Tiesler, Prof.Dr. Hans-Georg Schönwälder, Dipl.Ing. Frauke Ströver with contributions from Anika Bilek, Mary Koch, Mirco Penshorn, Jessica Pöhler, Juliana Wiechert

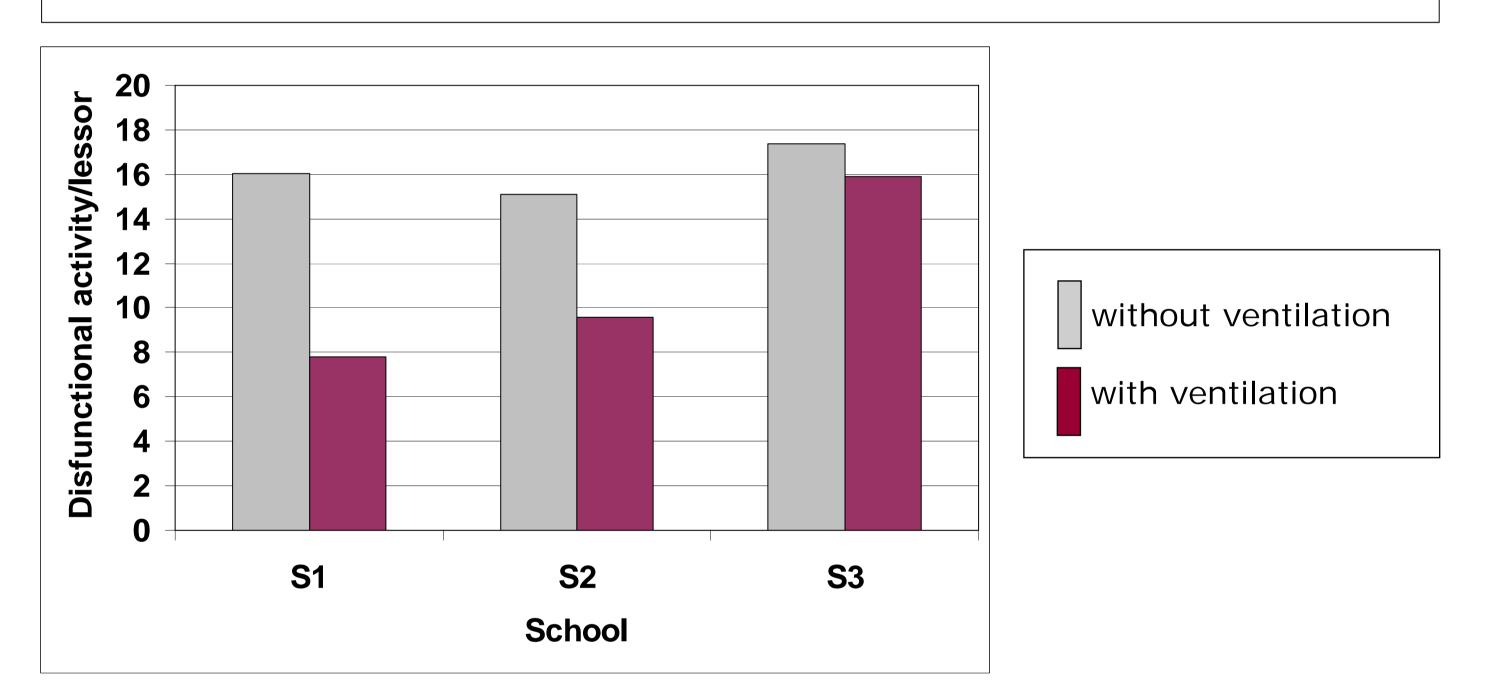
with contributions from Anika Bilek, Mary Koch, Mirco Penshorn, Jessica Pöhler, Juliana Wiechert English translation provided by Martin Jones, Drexel und Weiss GmbH

Results of the Pedagogic Aspects — teaching methods

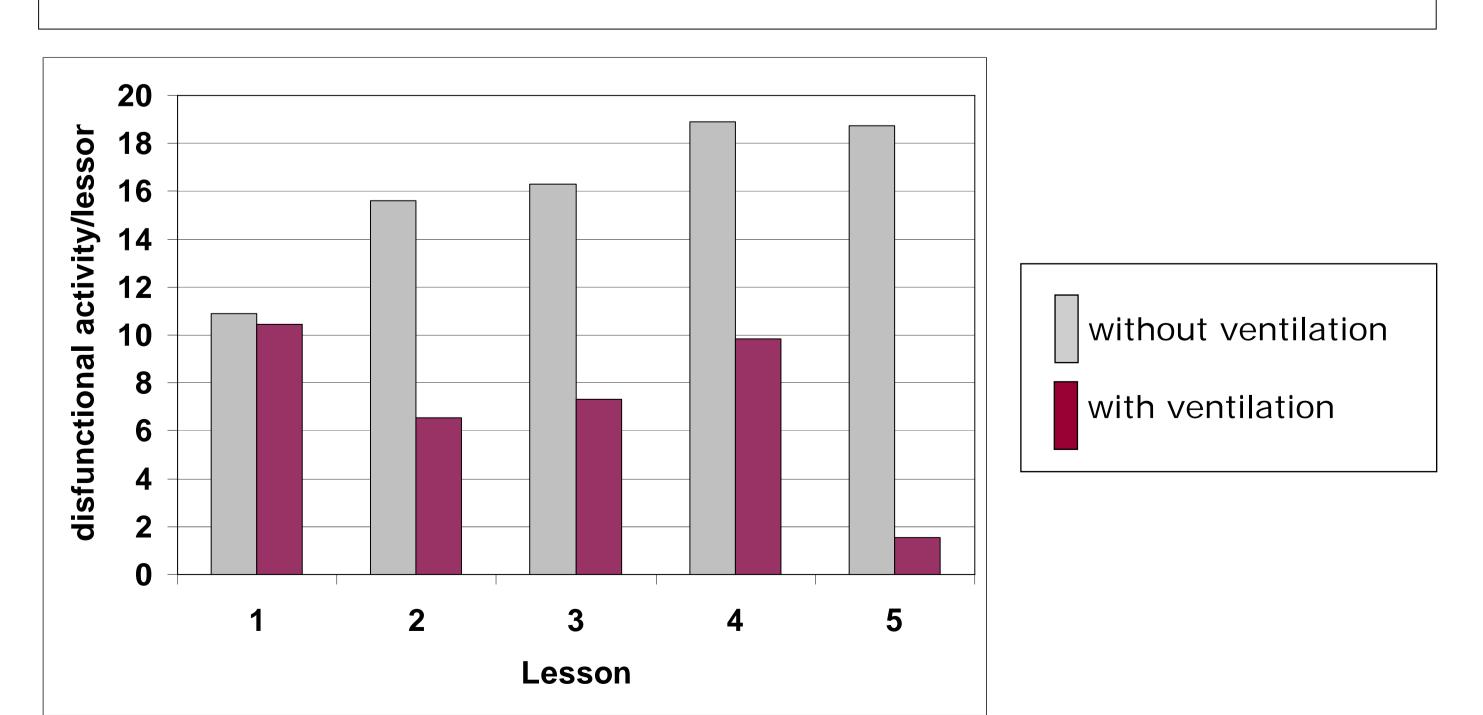
Disfunctional teaching activities

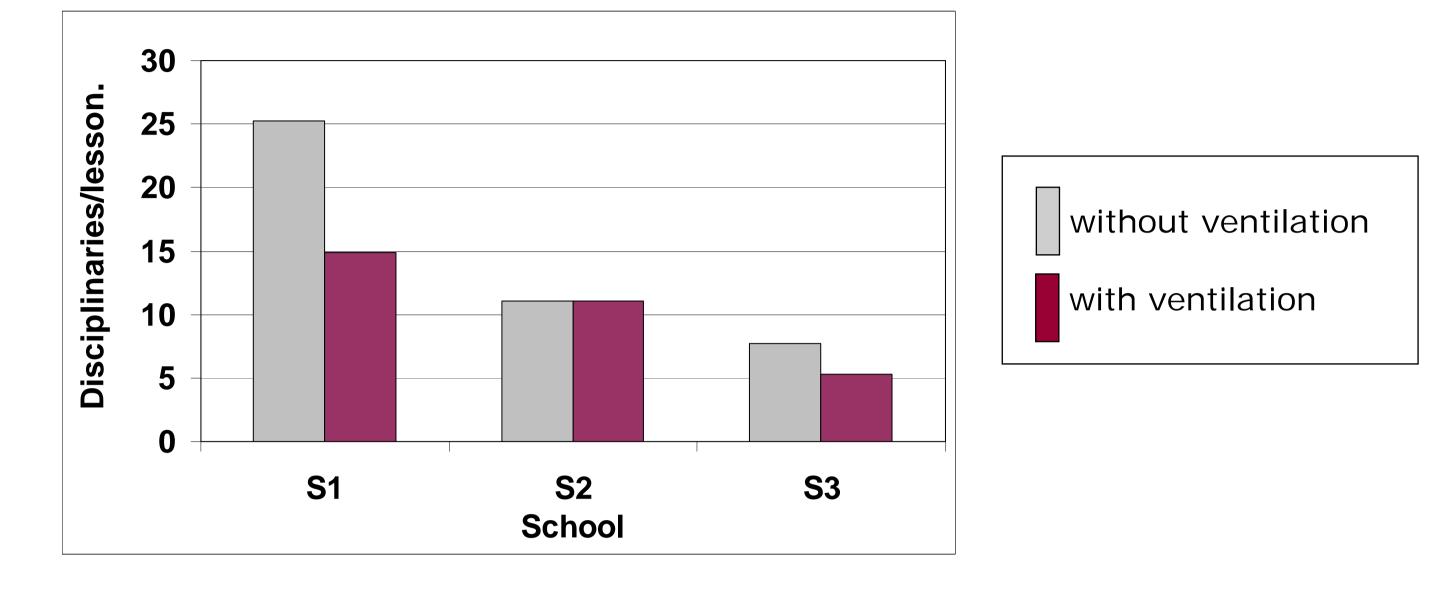
Based on the well known fact that tiredness leads to agitation, it is interesting to observe the disfunctional activities of the students during tuition. This includes the throwing of paper planes/balls, tuition unrelated chatter etc. This behaviour is not only punctuated by the age and character of the individual students, but also by the general code of conduct of the individual school.

With the introduction of ventilation intervals a clear reduction of disfunctional activity of the students was apparent, comparing between before and after the ventilation in all the schools observed.



The following diagram shows that before ventilation the regularity of disturbances from the first to the last classroom hour increases. After ventilation the regularity of disturbances from the students is dramatically reduced. The previously observed increase from the first to the last school hour is practically eliminated. The Pedagogues interpret the disturbances as an expression of the decreasing concentration and awareness. From this point of view there is a clear reduction in fatigue from the regular ventilation intervals implimented.

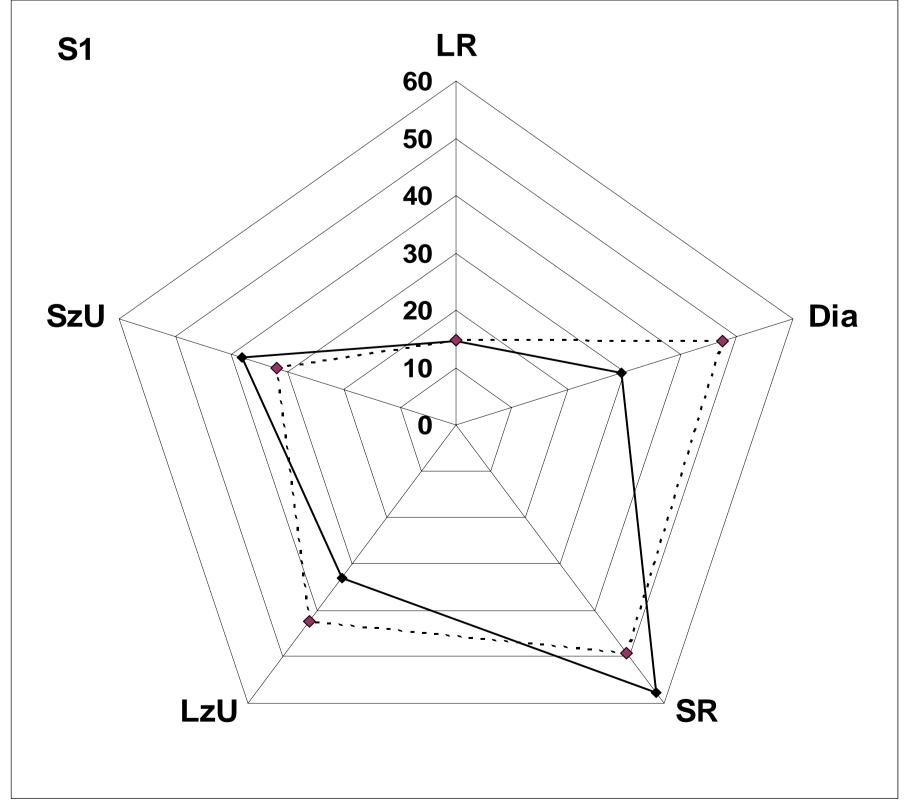




Disciplinary measures

Disciplinary measures were also an explicit part of the observations during tuition. After the implimentation of regular ventilation breaks, a clear reduction in the amount of disciplinary measures was shown. Here it is very interesting to note that the reduction in disciplinary measures was greater than the reduction in disfunctional activity. The teachers therefore reacted in a more relaxed manner to the remaining disfunctional disturbances.

Furthermore, the communication structure during the tuition experienced a change. Dialogue between teacher and student increased sharply, and the "verbal collaboration" also greatly improved. Together with the reduced CO_2 level and/or the 2 minute hourly breaks, the tuition methods also changed - from the teacher's point of view very positively. As a result of the increased learning capacity of the students, the teacher coordinated portions of the tuition could be extended. Following the ventilation intervals the teachers no longer felt the need to deviate from the preferred teaching methods.



Proportion of the communication parameters in the school without (—) and with (- - -) ventilation intervals

LR= Teacher speech SzU= Student-centred tuition
LzU= Teacher-centred tuition
SR= Student speech Dia= Dialogue



