

Louder than a Rock Concert

Noise in sport halls as an ergonomic working condition for teachers and students

Gerhart Tiesler & Simone Lang







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Research Project



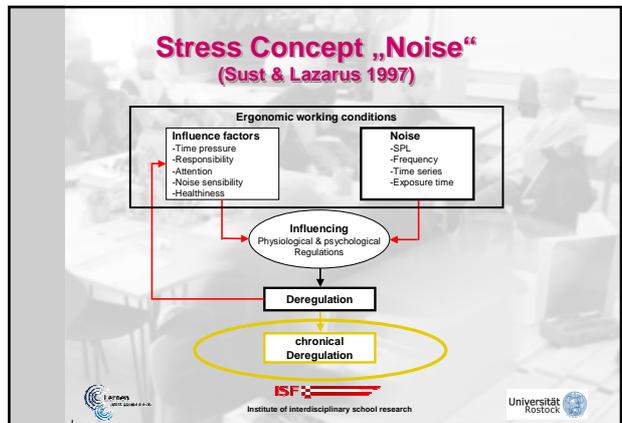
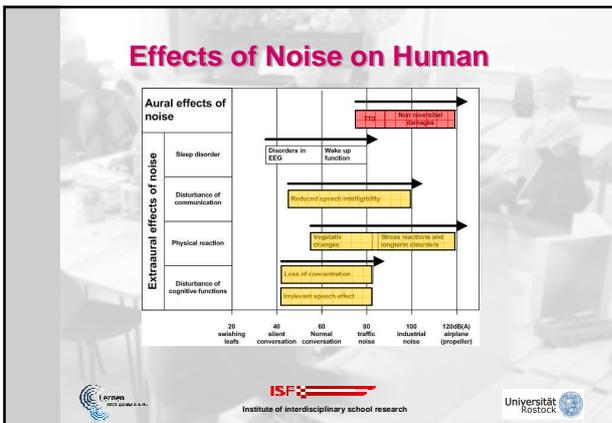
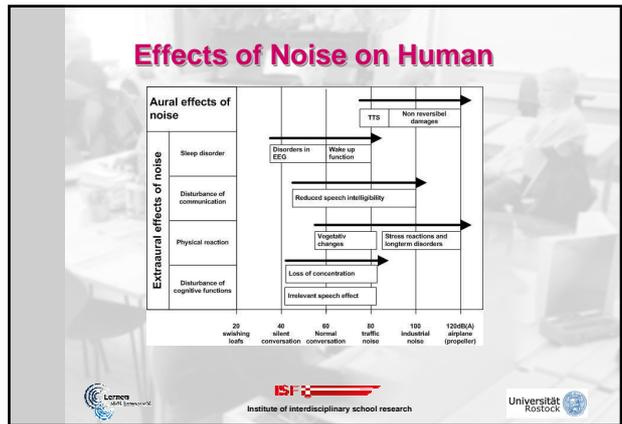
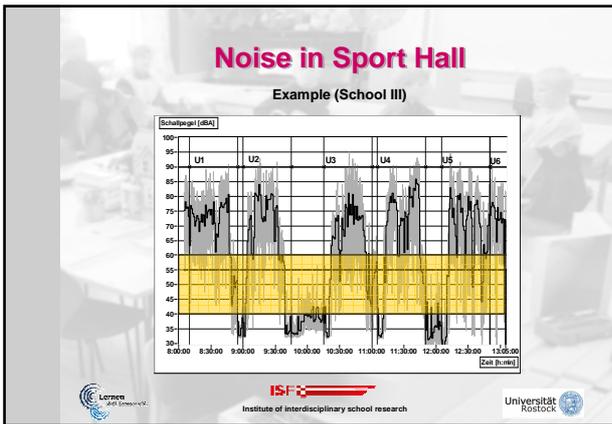

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Acoustic Ergonomics of Schools 2001 – 2006

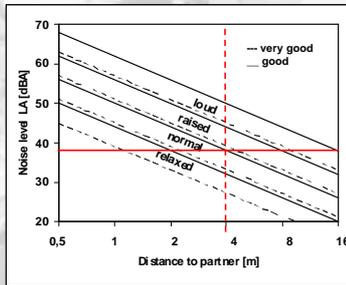




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Speech Transmission Quality



- Communication
- Noise sensibility
- Healthiness

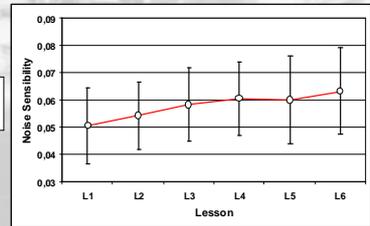


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Noise Sensibility

$$\text{Sensibility} = \frac{\text{Estimation}}{\text{SPL}}$$



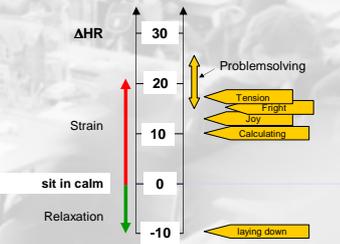
- Communication
- Noise sensibility
- Healthiness



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Workload Reaction



- Communication
- Noise sensibility
- Healthiness

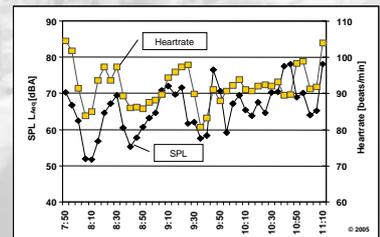


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Workload Reaction

Example: SPL and HR_{5min} of a female teacher



- Communication
- Noise sensibility
- Healthiness



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Reality in Sport Hall ?

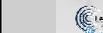
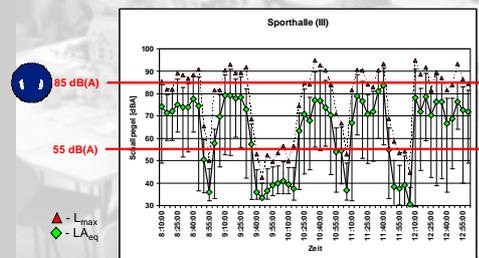


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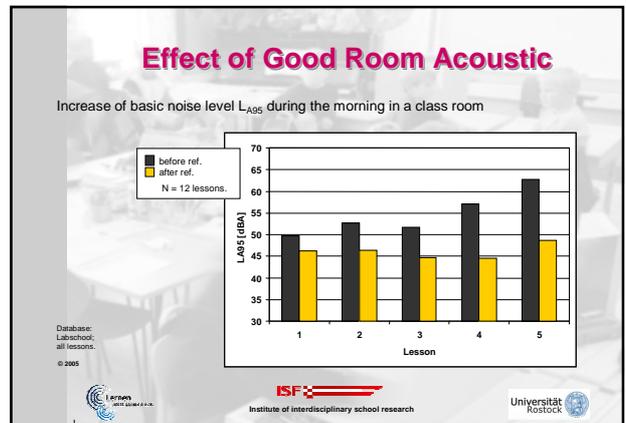
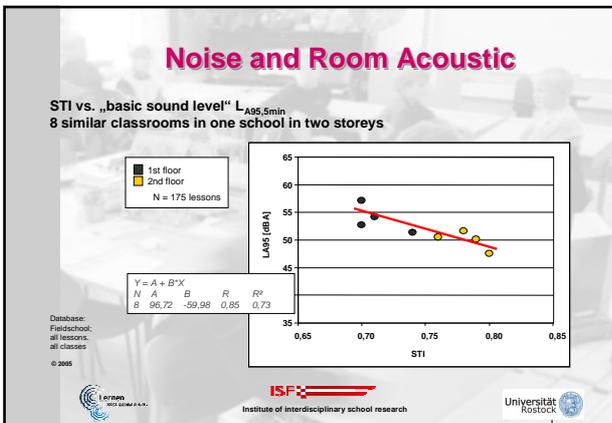
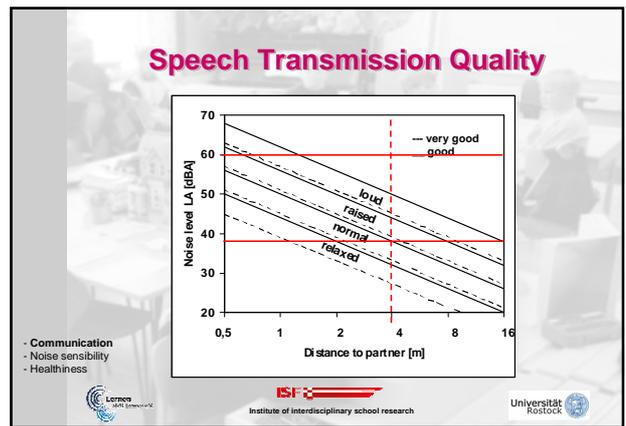
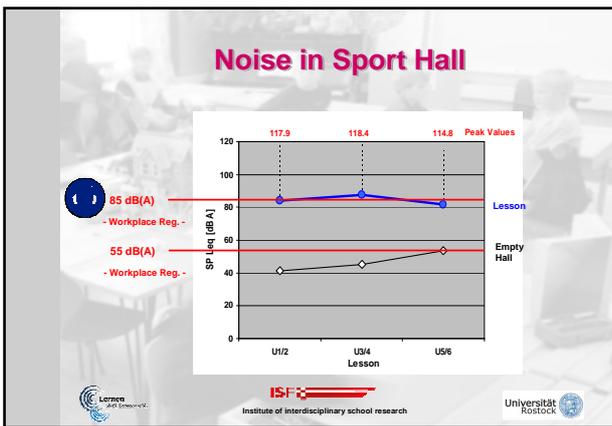
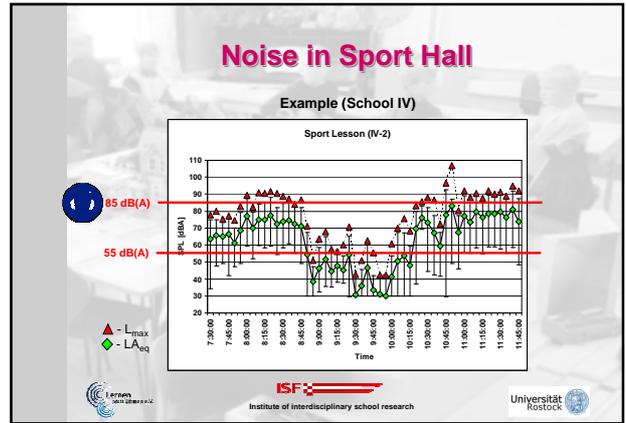
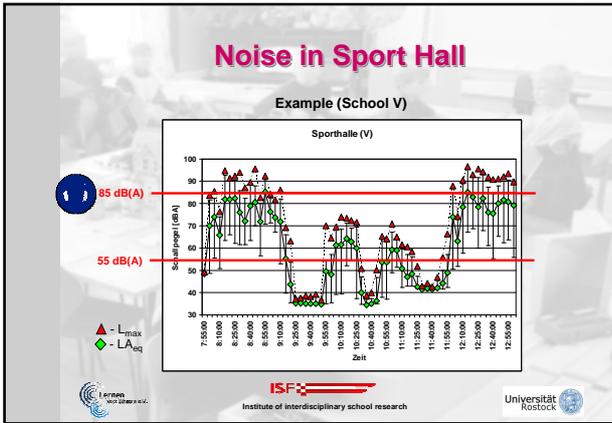
Noise in Sport Hall

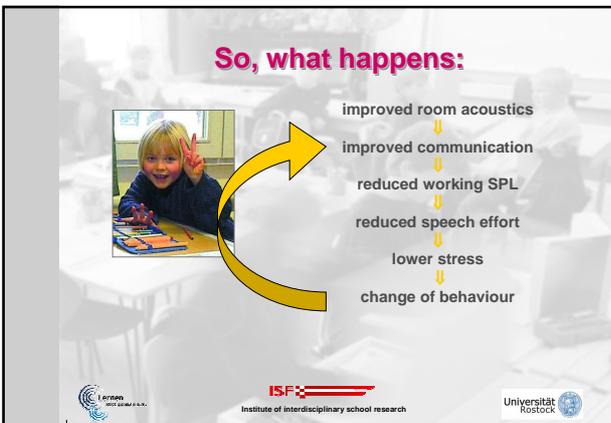
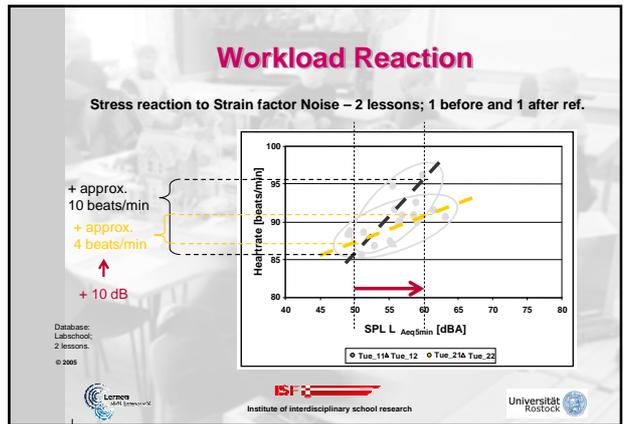
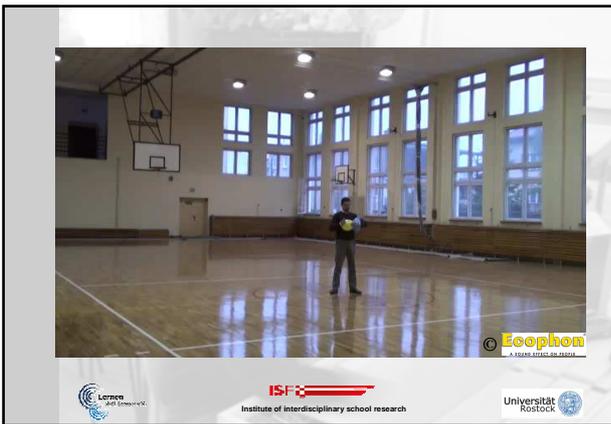
Example (School III)



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**Thanks for
Your Attention**



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