Effects of bright light exposure for adolescent pupils
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Conclusions
The hypothesis that exposure to artificial bright light in school can help adolescents adapt to early morning hours, is preliminary supported by this study.

Introduction
Sleep problems such as daytime sleepiness and difficulties getting up in the morning are common among adolescents and have rapidly increased in Sweden the last decade.

Aim
The study aimed to help pupils adapt to early mornings.

Intervention
The old classroom lighting (32 lamps, 2900K, Ra 56) was replaced with full spectrum lighting (41 lamps, 5500K, Ra 91-96, True Lite ®).

Design
Baseline - 3 weeks of bright light - Withdrawal
51 adolescents, 12-14 years
Scarcity of natural daylight (autumn, winter)
Saliva melatonin
Sleep diaries

Results
The pupils reported decreased sleepiness during mornings and increased sleepiness during evenings at the bright light condition (p < .01).

Melatonin levels during the mornings were lower at the withdrawal condition (p < .01).

Wake-up times were earlier at the withdrawal condition (p < .05) and sleep lengths were shorter at the withdrawal condition (p < .01)

Discussion
The results supporting better adaption to early mornings are in line with expectations, while the shortened sleep lengths and the delay of many effects until the withdrawal condition are more unexpected.