



# Impacts to Childhood Learning



**The Amended Analysis refines the analysis of the potential impacts of the proposed action on childhood learning and quantifies the degree of impact to the extent supported by the scientific literature.**

## Analysis

- **Current Research**
- **Documented Effects of Aircraft Noise**
  - Reading Comprehension (causal)
  - Test Scores (correlation)
- **There is Insufficient Evidence to Date to Establish a Causal Relationship to Other Learning Impacts**

## Results

- **Potential for One-Month Delay in Reading Comprehension\* at Coupeville Elementary under Alternative 2A**
- **Impacted Schools Under the No Action Alternative\***
  - Oak Harbor High School
  - Crescent Harbor Elementary School
  - Schools near Central Whidbey
- **Oak Harbor High School Could Have Up to a 4% Decrease in School Ranking Under Alternative 2A, if School Officials Keep the Windows Open**
- **Impacted Schools Remain At or Above WA State Averages in Language Arts**

\*Clark, C., Martin, R., van Kempen, E., Alfred, T., Head, J., Davies, H. W., Haines, M.M., Barrio, I. L., Matheson, M., and Stansfeld, S.A. (2005). "Exposure-effect relations between aircraft and road traffic noise exposure at school and reading comprehension: the RANCH project," American Journal of Epidemiology. 163, pp. 27-37.

## Mitigations

- **Communications:**
  - NAS Whidbey Island maintains open lines of communication with the local schools
  - Air Operations monitors schedules and attempts to adjust flights during key academic testing periods in schools
- **Sound Insulation in Schools**
  - New Community Noise Mitigation Program, through the Office of Local Defense Community Cooperation
  - Oak Harbor Schools have been invited to apply for grant funding
- **Flight Operations:**
  - Avoid noise-sensitive areas, unless redirected for flight safety

