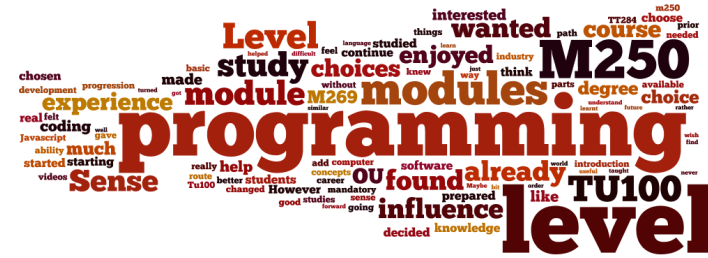


The CS problem

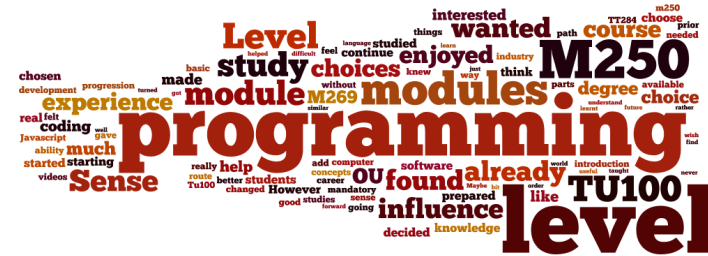


Computer Science concepts are hard to grasp

In a New Zealand study 60% of Java exercises submitted by CS1 students had non-compiling code

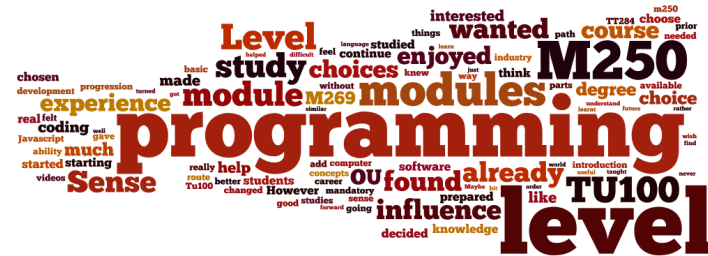
Visual programming environments allow early success with programming

Aims of the project



- investigate if any correlation exists between success in programming on a Stage 2 Java module and levels of student engagement with the programming taught at Stage 1, using Scratch;
- investigate if any correlation exists between failure to complete the Stage 2 Java module and student engagement with the programming at Stage 1, Scratch;
- gain insight into how well students believed they had been prepared for Stage 2 Java programming work by the use of Scratch at Stage 1.

The Open University context



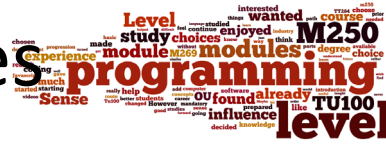
Open University (OU)

- UK's largest university
- 174,000 students
- supported distance learning

Computing & IT qualifications

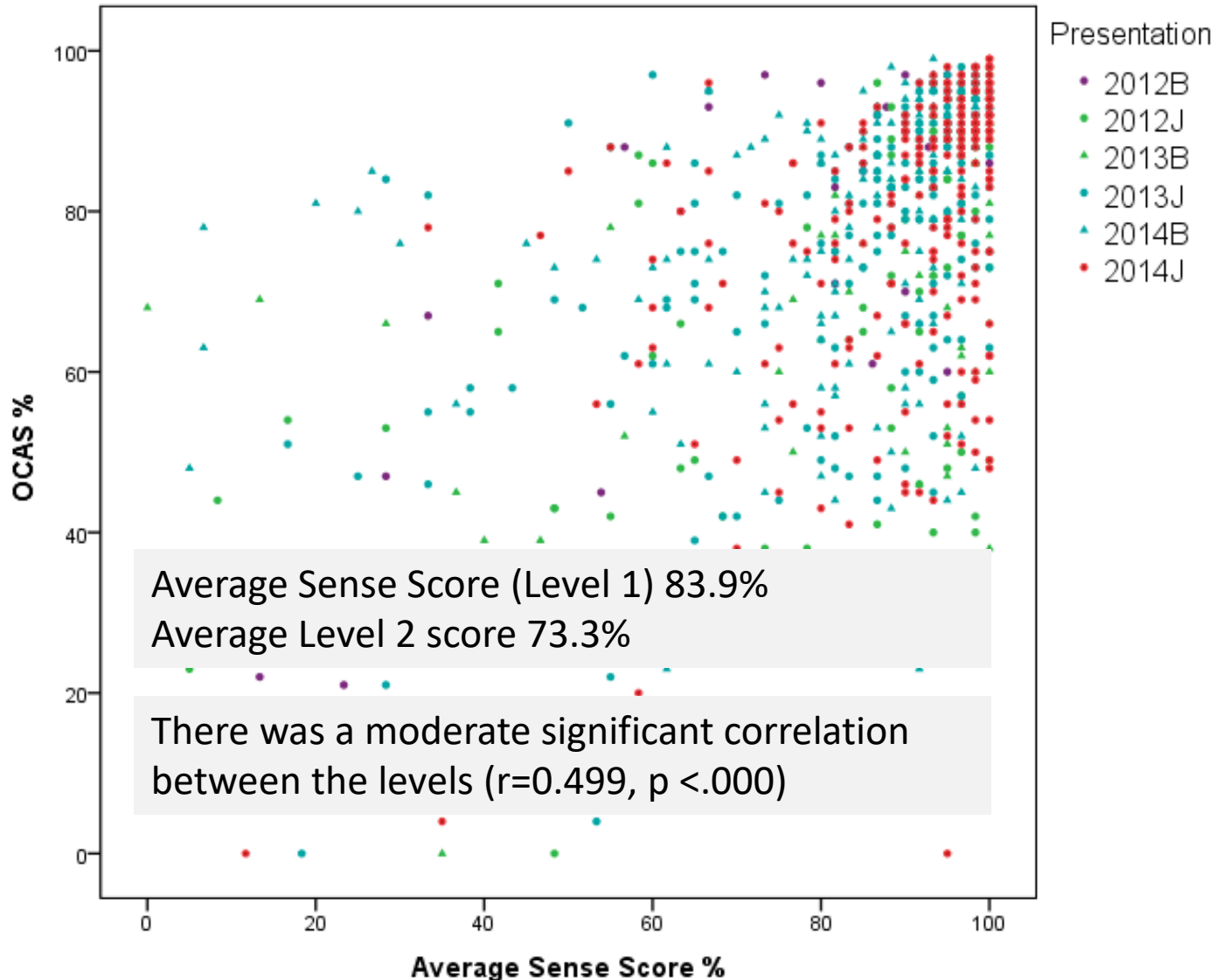
- All pathways include programming
- Common Stage 1 curriculum

Comparison of Level 1 & 2 assignment scores

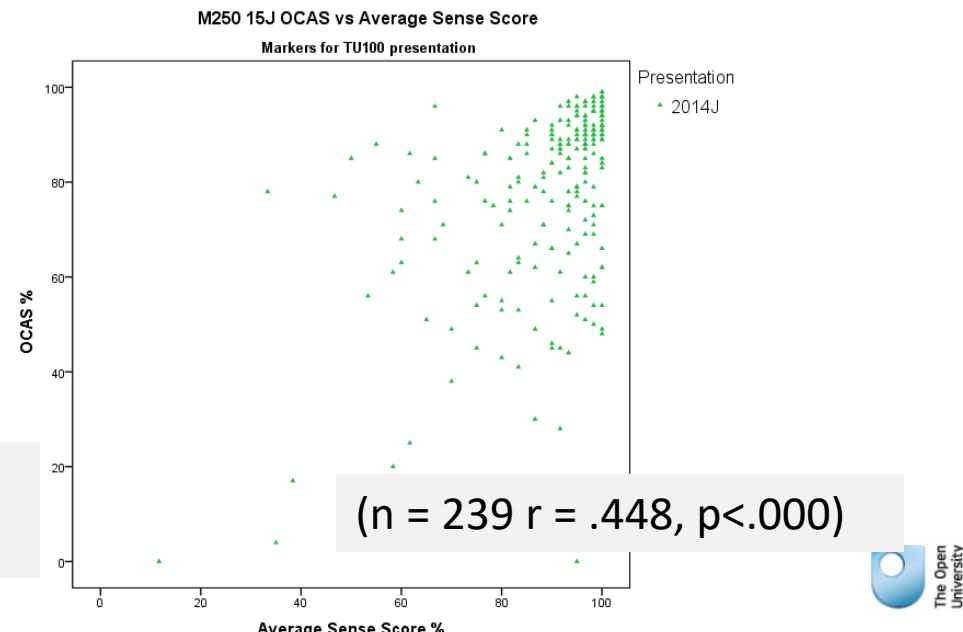
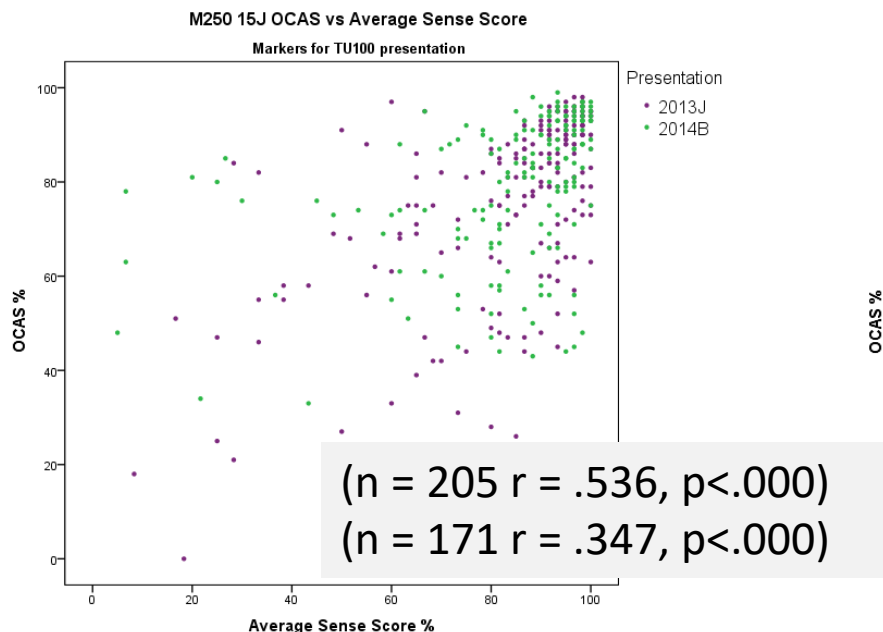
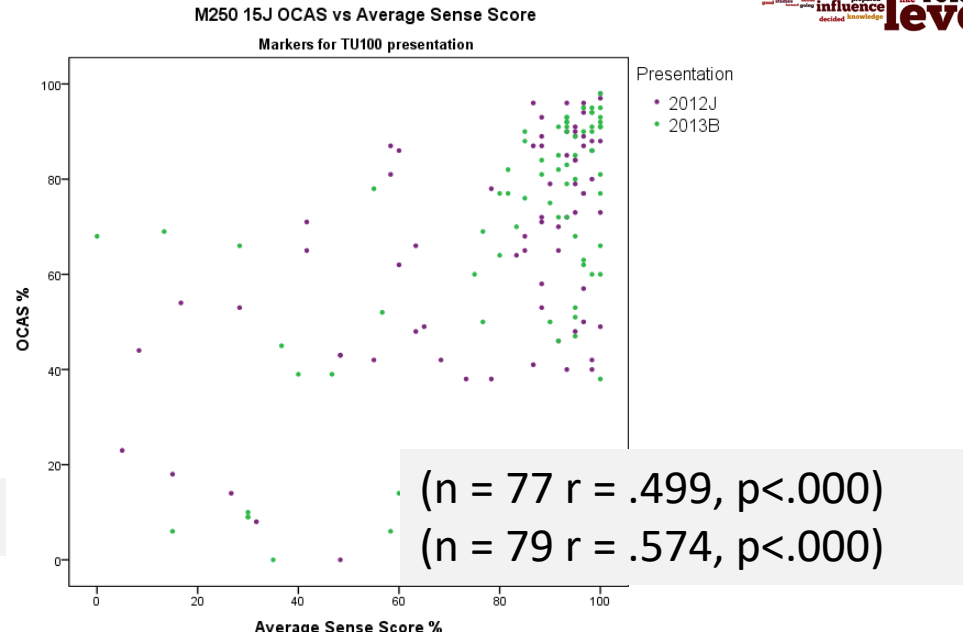
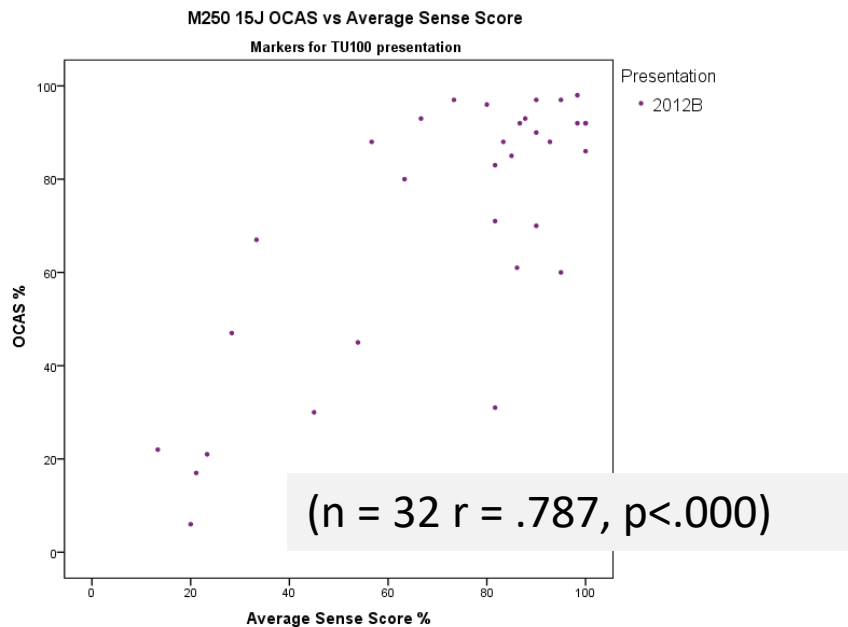
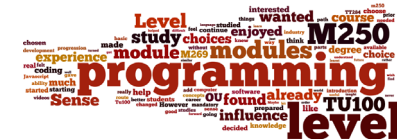


M250 15J OCAS vs Average Sense Score

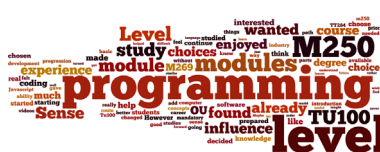
Markers for TU100 presentation



Length of time from studying Level 1

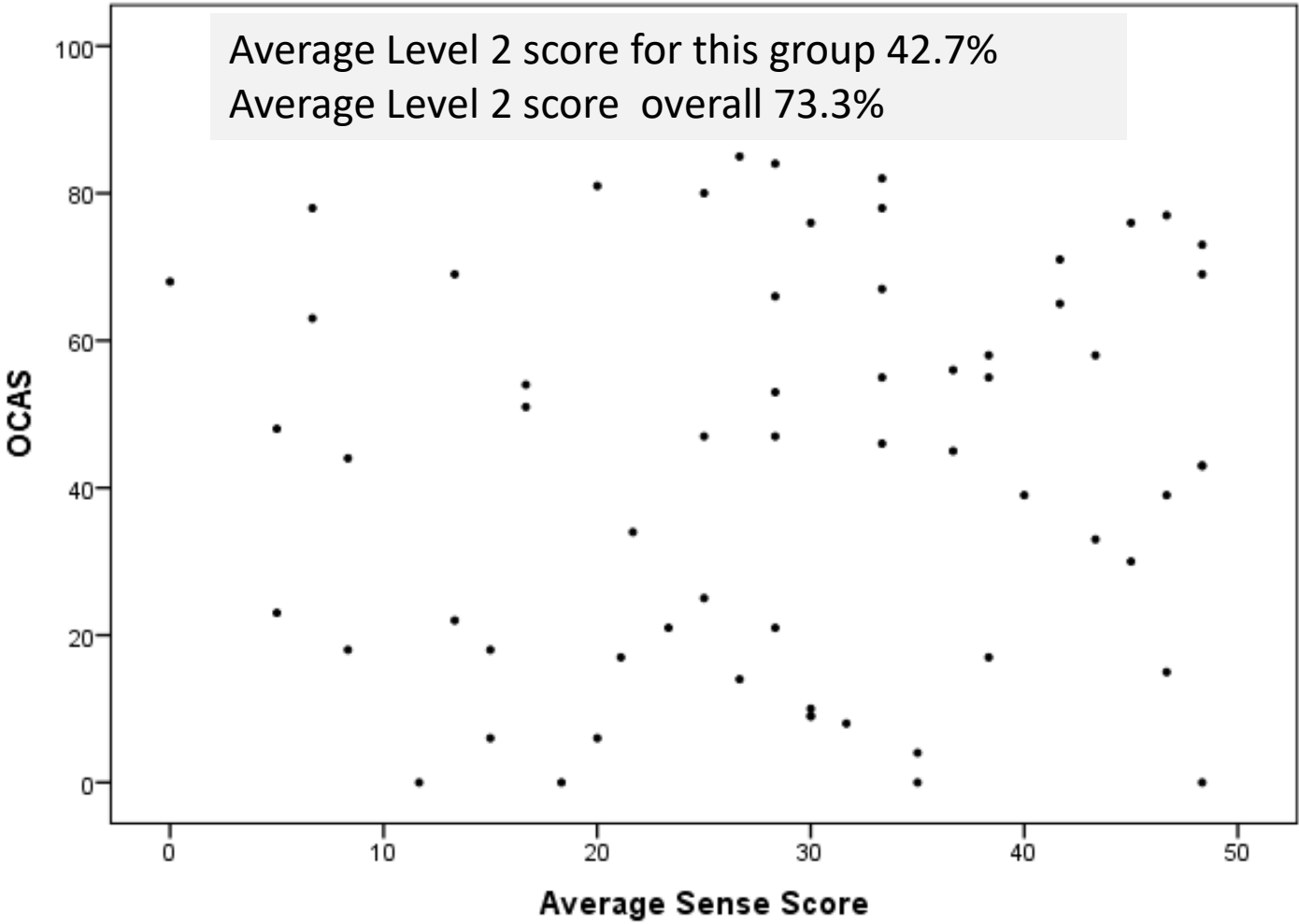


Students that did badly at level 1 (scoring <50%)

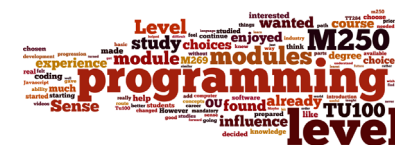


M250 15J OCAS vs Average Sense Score

Students that scored < 50% on Sense

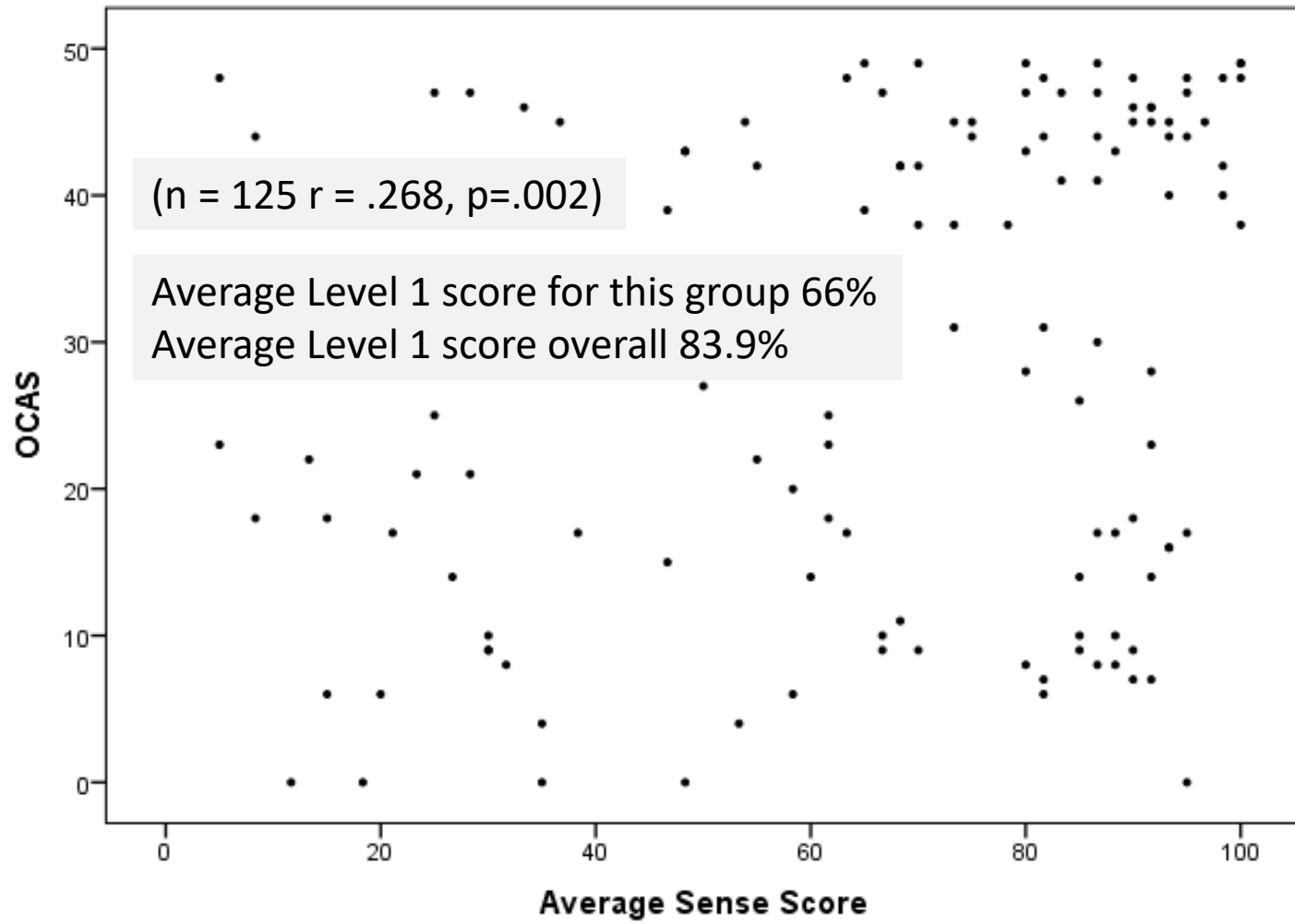


Students that did badly at level 2 (scoring <50%)

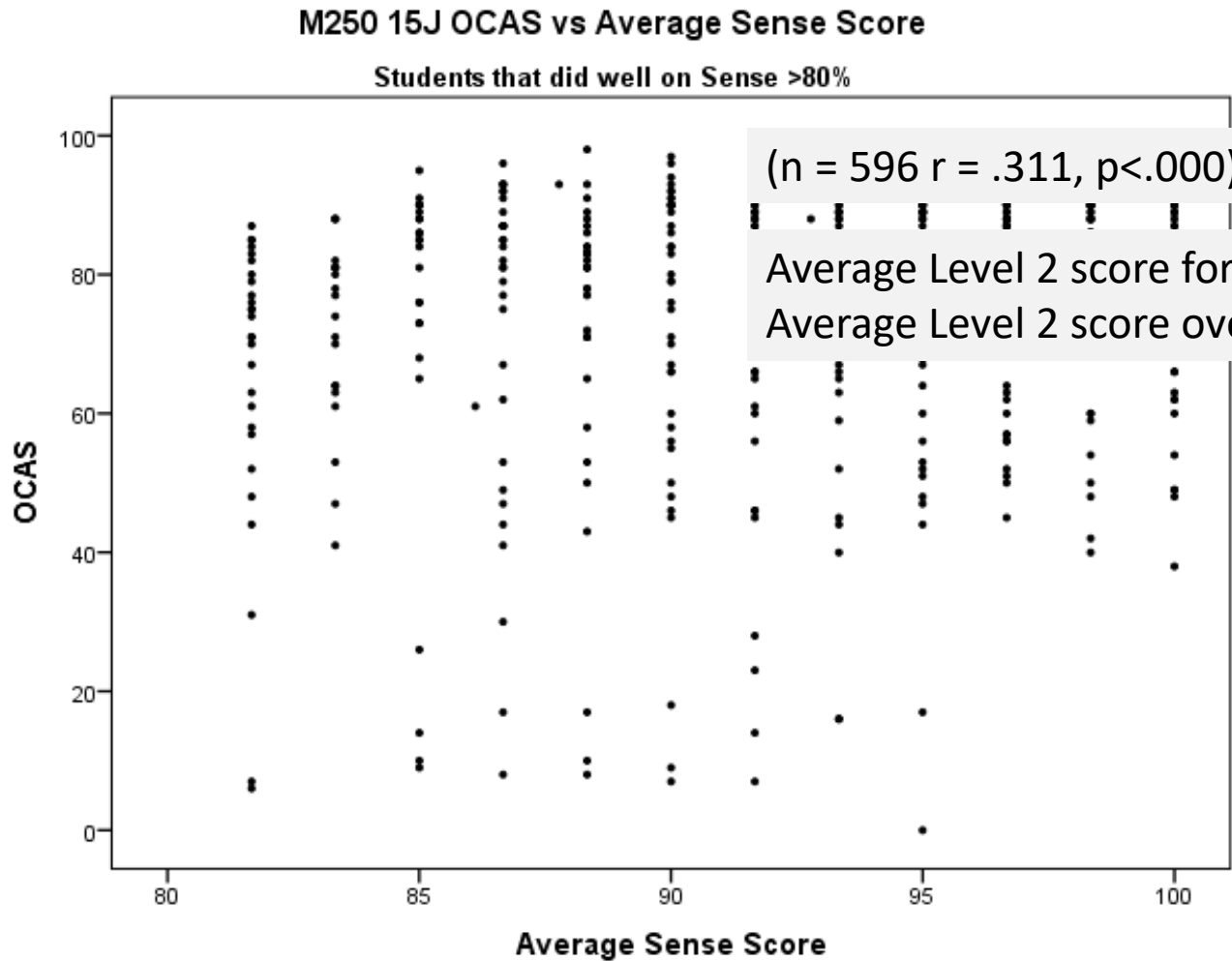
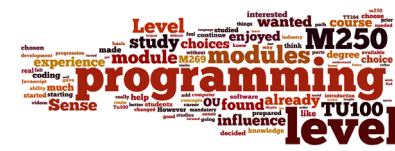


M250 15J OCAS vs Average Sense Score

Students who scored <50% OCAS



Students that did well at level 1 (scoring >80%)



Students that did well at level 2 (scoring >80%)

