Looking at the numbers

OpenStudio collects a range of data from student actions through its interface. These data were used to quantitatively analyse the research questions and hypotheses generated. Three modules were studied across a range of presentations (right), giving a sample selection across levels 1-3.

The following interface activities were used and analysed:
- E1 (inverse of) Number of empty* slots
- E2 Number of views of other slots
- E3 Number of comments made on own slot
- E4 Number of comments made on other slot
- E5 Number of feedback requests
- E6 Number of pinboard slots created

Overall, average engagement numbers

1) There is a significant difference in engagement measures between modules:
2) The lower the study level, the greater the engagement seems to be [1]
3) U101 students complete two thirds of slots compared to under half on T217 and less than a fifth on T317;
4) U101 students are 2-3 times more likely to comment on their own slots compared to T317 students, and are 3-4 times more likely to comment on other slots;
5) Requests for help appear reasonably - no one wants to ask for help;
6) The average number of Pinboard slots created is similar between T217 and T317 and these are significantly lower than the numbers on U101 [1, 2]

Correlations and findings

7) Both Pearson and Spearman correlations support the hypothesised linear relationship between student success and engagement activities, although this varies significantly between levels (stronger at level 1 compared to level 3).
8) Students do not like ‘ask for help’, supporting similar findings in other data and studies.
9) The strongest single correlative engagement factor is Viewing other slots, often considered a ‘passive’ form of engagement, suggesting there may be other

Overall, we cannot say that we are making progress, at least in terms of OpenStudio supporting students closely at all levels in the ways we would expect. But we can say that there are some positive things we have learned. Work now needs to:
- Verify these findings using more data
- Develop hypotheses around why we have these results
- Identify evidence that may support current theories around good learning design

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[1] Distribution of data is not even - we need more data for Levels 2 and 3 to confirm some findings
[2] The use of multiple slots in T217 has an effect this comparison - different studio setups require slightly different data considerations