Objective function:

The way I see it I have two choices of how to represent the objective function if I want it to remain linear:

1. Using an index to determine which C is chosen. Like x_{ijvs} where s determines which C is being chosen. This gives E_v*S*V variables which is ofcourse making the problem quite big.

2. Or replacing that with the sum of the total distance to avoid having S extra variables (there might be several ways of doing this but I find the representation you suggested to be quite efficient and mostly fitting to the problem).

(3. not really an option) Non linear representations with two variables, which is not possible..

Questions I need to clear to move on:

Q1. Why exactly is the representation $c_{vs}d_{vs}$ not good?
Q2. What would be an example of an objective function that would satisfy what we are looking for?

I guess what I am missing at the moment is for it to be clear to me what (and why) I am looking for, cus right now it feels like I am searching for «something else» without actually understanding what I am searching for. Do you get a bit what I mean? The last few days I am mostly running in circles coming back to old representations of the form 1. or representations like 3 which makes it non linear or the representation you suggested (2).

I am also getting more and more panic for my exams and feel like I cant keep running in circles on this these days, because I am falling behind so hope we find a solution soon that we are both satisfied with so that I can finish the report before next friday. :) (if not we have to dicuss what other options I have regarding finishing/presenting the report for inf319..?)