

Probability and Statistical Inference

Useful Resources for Background for CA

1. Sermsuk, Savanee, Duankamol Triwichitkhun, and Suwimon Wongwanich. "Employment conditions and essential employability skills required by employers for secondary school graduate." *Procedia-Social and Behavioral Sciences* 116 (2014): 1848-1854.

<https://www.sciencedirect.com/science/article/pii/S1877042814004996>

How is this useful? It identifies numeracy and literacy as key employability skills – link to native language and mathematics grades at second level which are included in the dataset.

2. Education at a Glance

Education at a Glance: OECD Indicators (OECD, 2019)

https://www.oecd.org/education/education-at-a-glance/EAG2019_CN_PRT.pdf

OECD education at a glance presents an snapshot of the state of education for a range of countries – the link is for Portugal but there is an equivalent for most countries. This is also for 2019 but you should be mindful that the dataset is from before that. Older versions of education at a glance are available.

How is this useful? It provides some insight into aims and objectives of the country for education, how education is structured, percentages attending and importance/uptake/achievement level in certain subjects in areas of interest.

3. Stewart, E. B. (2008). School structural characteristics, student effort, peer associations, and parental involvement: The influence of school-and individual-level factors on academic achievement. *Education and urban society*, 40(2), 179-204.

https://journals.sagepub.com/doi/pdf/10.1177/0013124507304167?casa_token=pb2MvDZbmIUAAAAA:P4ZF0hMgzlMnBgPpdXJkTf_lk4_fo5l77vCk-pfc60wDWRgcivLPmbSRfbEqDYA1B4_X5lCmTeEw

How is this useful? Includes an empirical review of individual factors and school factors which can affect achievement some which are represented in the dataset provided. Also gives you some idea of correlations and differences investigated (you won't have the same measures but can use some variables as indicators of these measures).

4. Díaz, A. L. (2003). Personal, family, and academic factors affecting low achievement in secondary school. *Electronic Journal of Research in Educational Psychology and Psychopedagogy*, 1(1), 43-66.

http://investigacion-psicopedagogica.org/revista/articulos/1/english/Art_1_4.pdf

How is this useful? Provides context and background on wider factors related to personal, family and lifestyle that impact academic achievement some of which are represented in the dataset you have. Highlights gender difference in particular. You can chase citations.

5. Kristjansson, A. L., & Sigfúsdóttir, I. D. (2009). The role of parental support, parental monitoring, and time spent with parents in adolescent academic achievement in Iceland: A structural model of gender differences. *Scandinavian journal of educational research*, 53(5), 481-496.
https://www.tandfonline.com/doi/full/10.1080/00313830903180786?casa_token=s9E5GT11eKUAAAAA:L2jz7M16Wrt_Tsanbm6Sn5j9p7RzwlzTRB0pQ6aHkSt3bTcbbe391iPSdtO76j4yl6v18foUzQSDmQ (Check if you have access as TU Dublin – if not I can provide a pdf).
 How is this useful? Provides context and background on wider factors related to family and lifestyle that impact academic achievement some of which are represented in the dataset you have. Highlights gender difference in particular. You can chase citations.
6. Systematic review of factors influencing poor performance in science and maths
 Banerjee, P. A. (2016). A systematic review of factors linked to poor academic performance of disadvantaged students in science and maths in schools. *Cogent Education*, 3(1), 1178441.
<https://www.cogentoa.com/article/10.1080/2331186X.2016.1178441.pdf>
 How is it useful? In the section outlining candidate factors it identifies some that are represented in the dataset provided – you can chase citations. Related to mathematics one of the grades included. This is obviously published well after the dataset you are using was collected – you can still use it to provide context but not to justify specifics. It would be better to use an older citation.
7. Balsa, A. I., Giuliano, L. M., & French, M. T. (2011). The effects of alcohol use on academic achievement in high school. *Economics of education review*, 30(1), 1-15.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3026599/>
 How is it useful? Provides background on alcohol consumption and its influence on academic achievement and school absence also considers gender difference. Some useful citations.
8. Hancock, K. J., Lawrence, D., Shepherd, C. C., Mitrou, F., & Zubrick, S. R. (2017). Associations between school absence and academic achievement: Do socioeconomics matter?. *British Educational Research Journal*, 43(3), 415-440.
https://onlinelibrary.wiley.com/doi/pdf/10.1002/berj.3267?casa_token=DFcC5fy1-BQAAAAA:bWAUojMbmbAVjs2Llz8MV0JvDRJ7HxwjQM-NXiqjzla3lgdjTUjupM6XQZ_yH9yzqc-Bisi35XWrtOjcPA
 How is it useful? Provides background on school absence and other socioeconomic factors. Some useful citations.