

4.4 Mediation Models

The full meditation model presented in [Figure 9](#), all the standardized path coefficients for overall sample (scandic) and for each country are presented in [Table 6](#), most of which deem to be significant. The model fit indices showed good fit as per Hu and Bentler (1999) for the overall sample and each country with Finland having the fittest model (CFI = .987, TLI = .923, RMSEA = .057, SRMR = .025).

4.4.1 ICT use and reading achievement

There is no doubt that the ICT use in general do associate – both negatively and positively— with reading achievement directly, in particular the ICT use outside of school. However, this association can be interesting that it negatively predicts reading performance (READ) when the ICT devices are used at school (USESCH) or for schoolwork purposes outside of school (HOMESCH); while it positively predicts reading performance when students use ICT devices for leisure (ENTUSE).

On a closer look, this association revealed a sharp divide between the three countries, First, Finnish students reading performance (READ) is –and to a greater extent— negatively associated with HOMESCH while this association is slight for Swedish and even positive for Danish students. Second, both Danish and Swedish students (READ) is – to a great extent— negatively predicted by USESCH, compared to Finish students READ which is slightly associated with the same variable. Lastly, using ICT for leisure purposes seems to be a greater positive predictor for Danish and Swedish than Finnish students.

4.4.2 Reading attitudes meditation

The four conditions for a mediation model assumed by Baron and Kenny (1986) ([SC](#)) are satisfied, first the effect of ICT variables on reading performance is statistically significant, second, the regression of mediators on ICT variables are statistically significant ($\beta \geq .148$, $SE \leq .016$, $P = 0$) see [App X](#) for further details, third, the regression of reading on both ICT variables and reading attitudes is statistically significant albeit the small size effect of the regression, last, the direct effect of ICT variables on reading performance is reduced when mediators are introduced.

Further exploring the mediation paths amongst countries makes clear the divide. While enjoying reading (Joy) is negatively mediating the influence of ICT use on reading performance in Finland, this mediation is positive or slight in Denmark and Sweden. Perception of reading competence (Confidence), on the other hand, showed substantial mediation effect for all the ICT variables in Finland and Sweden in comparison to slight effect

in Denmark. Lastly, perception of reading ease (Ease) substantially and positively mediated the effect of all predictors in Finland, but negatively mediated the effect in both Sweden and Denmark.

4.4.3 Control variables

ESCS confirmed itself the most important background variables associating with students' reading achievement amongst the other control variables. With a substantial positive relation ($\beta = .30$), it is safe to suggest that students with higher ESCS achieve higher reading scores. Likewise, gender also has a substantial association with reading achievement specially in Finland, with ($\beta = .12$), it is definitely that girls —one average— have higher reading performance. Finally, previous correlation findings show negative association between having immigration background, whether first or second generation, and reading performance.