Application details

If you wish to apply for one of this specific position, please apply through the normal application process but indicate in your cover level which you project you are interested in and that you would like to work with Prof. dr. Schippers. Please contact Prof. Schippers for content related questions about the topics.

Supervisor: Prof. dr. M.C. Schippers https://www.rsm.nl/people/michaela-schippers/

Developing an Evidence-based Toolkit to Engage Students with the SDGs: Overview Effect, Letters to the Future and an SDG Strategy Assignment

Since the adoption of the 17 Sustainable Development Goals (SDGs) by the United Nation as part of the 2030 Agenda for Sustainable Development, many educational institutions have embraced these in their educational programme (e.g., Alcántara-Rubio et al., 2022), especially in management education (cf. van Tulder & van Mil, 2023). However, a recent review indicated that there is a lack of action regarding Responsible Management Education (RME) and this is a main hurdle in terms of implementing practises aimed at educating future responsible leaders. It has been noted that engagement has been slow and connections with the SDGs are often superficial (Weybrecht, 2022). A key problem is a lack of evidence-based actionable tools that educators can use to not only teach about the SDGs, but also nudges students to contribute towards the goals (cf. Weybrecht, 2022). At the same time, a main problem is that since the adoption of the SDGs in 2015 by all UN member states, the world seems not on track in terms of SDGs, prompting the UN to announce a 'decade of action' in 2020 (Van Tulder et al., 2021). While some educational tools have been developed (van Tulder & van Mil, 2023), there is a clear need for an comprehensive evidence-based educational toolkit that engages students with the SDGs in such a way that they will choose their own goals and actions. Such a tool would make sure that people feel inspired to contribute to the SDGs, increasing the chances of actual and sustained involvement. Prior research has indicated that when students are prompted via an intervention to choose their own life goals, that this is not only related to higher well-being and meaning, but even increased academic performance (Schippers & Ziegler, 2019). Interventions aimed to induce the 'overview effect' -a cognitive shift in awareness reported by some astronauts during spaceflight, often while viewing the Earth from outer space- are often related to awe and self-transcendent experiences (Yaden et al, 2016), that is even visible on brain scans (van Limpt-Broers et al, 2024). While this relates to self-transcendent intentions and a renewed sense of responsibility for taking care of the planet, a link with actual behavioral change has not consistently been shown (Yaden et al, 2016). We propose that be because change even though a cognitive shift takes place, this has to be followed up with actual goalsetting (cf. Hudson et al, 2019) and a targeted assignment. I propose that a combination of interventions with (1) the overview effects, (2) a Letter to the Future (LF),

and (3) a SDG team assignment will be a strong combination to engage students with the SDGs. In the LF, students write about (a) their idea of an ideal world (b) the world that will come to pass if no change is made, and (c) formulate concrete goals and contributions that students can make towards this ideal world using SMART goals.

The research question is:

Can a combination of the (1) the overview effect (OE) with (2) letters to the future (LF) and (3) an SDG group assignment increase engagement of students with the SDGs, as well as increase well-being and performance of students? The more general research question is that we aim to address is which (combination of) interventions work well for which subgroups of students. Specifically if the three interventions combined versus only two interventions are superior to the stand-alone interventions.

For our first study among RSM students, we will investigate the effects of the first two interventions, the OE and LF, administered in the context of a third-year elective of 150-250 students at RSM, Positive Psychology for Coaching and Career Success. For this course, I am the coordinator. Questionnaires will be send before and after the interventions (T0, T1, T2). Engagement with wicked problems and SDGs, well-being as well as academic effects (grades) will be considered in terms of outcomes. Control variables include age, motivation and personality. Also (change in) purpose in life will be considered. Last year, only the LF was introduced in that course, so we can test whether OE and LF combined is stronger. For our second study we aim to test a combination of all three. We aim to introduce OE and LF to the course Leadership Development, with about 1200 students. In this course, the third intervention, an SDG strategy assignment (poster) is already part of the course. The general set-up is similar to Study 1, with questionnaires at T0-T3. Although an RCT is the preferred option for this study, a quasi-experimental design is the preferred option if an RCT is not deemed acceptable for the dean of education and/or course coordinators. We have done this in the past with goalsetting (e.g., Schippers et al, 2020).

Topic 2: Life crafting can increase study and career success

Over the past 11 years, we have collected data on the topic of goal setting / life crafting within the Erasmus Centre for Study and Career Success. I developed a Life crafting intervention, in which over the years more than 60.000 students have now participated (from Universities, Universities of Applied Sciences, and [secondary] vocational education). The intervention consists of writing assignments, that help students reflect on their values and passions, their ideal future, and the goals they need to set to achieve this ideal future. We have shown that this intervention increases academic performance, and strongly reduces performance gaps. For each student cohort, we use longitudinal measurements across one academic year, to measure the effect of the intervention. At three time points

(see timeline below), we measure several psychological constructs, like depression, anxiety, purpose and meaning in life, motivation, procrastination, resilience. Recently, we have started to examine how the intervention affects student wellbeing. In this regard, there are still many things to discover. Possible thesis topics:

- <u>Depression, anxiety, and study success</u>: We often see interaction effects between depression and/or anxiety, and active participation in the intervention (i.e., the number of words they write) on academic performance (i.e., GPA). Depressed or anxious students who actively participate in the intervention perform better in their study program. We would like to dive deeper into the data and explore if this pattern is consistent across study programmes.
- <u>Content analysis of life crafting intervention data</u>: Students write on average 3000 words each, about their values and passions, ideal life, and the goals they want to achieve. There are many opportunities for developing research questions with these data (e.g., what types of goals do students set? Is there a difference in goals between students low or high on depression, anxiety, motivation, procrastination or other personality factors). For an example of content analysis, see Schippers et al., 2020.
- We are working on developing a new, short, life crafting questionnaire based on second order factor analysis of questionnaires we used previously. Results from the preliminary analyses we conducted show four higher order factor in our data: Purpose, Perseverance, Goal-directed study behavior, and Psychological wellbeing. Based on these results, we want to further develop our questionnaire.

It is preferable to starts to work with our existing data, and over the course of the project collect your own data, we can discuss this. Other topics related to goal setting or life crafting, and study and career success can also be discussed. I can offer supervision in English and Dutch.

Example timeline of our existing data:



Methodological approach

Mainly quantitative analysis (e.g., SPSS, M+), and/or qualitative content analysis (LIWC - <u>LIWC Analysis</u>, Lingualyzer -<u>www.lingualyzer.com</u>.

Suggested readings

Schippers, M.C., van Tulder, R., Louwerse, M. & Panas, D.C. (2025). Engaging Students with Sustainable Development Goals: A Performative Educational Toolkit with Virtual Reality Simulations, Letters to the Future and an SDG Strategy Assignment. Manuscript sent to special issue of British Journal of Management. Engaging Students with Sustainable Development Goals: A Performative Educational Toolkit with Virtual Reality Simulations, Letters to the Future and an SDG Strategy Assignment - Erasmus University Rotterdam

Schippers, M. C., de Jong, E. M., Rus, D., Rommers, H, & Banerjee, S. (2024). Letters to the Future Challenge: A Scalable Online Tool to Engage Management Students with the SDGs. Manuscript submitted to The International Journal of Management Education.

<u>Letters to the Future Challenge: A Scalable Online Tool to Engage Management</u> <u>Students with the SDGs - Erasmus University Rotterdam</u>

(SSRN) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4372540

Schippers, M. C., & Ziegler, N. (2019). Life crafting as a way to find purpose and meaning in life. *Frontiers in Psychology*, *10*, 2778.

Schippers, M. C., Morisano, D., Locke, E. A., Scheepers, A. W., Latham, G. P., & de Jong, E. M. (2020). Writing about personal goals and plans regardless of goal type boosts academic performance. *Contemporary educational psychology*, *60*, 101823.

van Limpt-Broers, H. A. T., Postma, M., van Weelden, E., Pratesi, S., & Louwerse, M. M. (2024). Neurophysiological evidence for the overview effect: a virtual reality journey into space. Virtual Reality, 28(3), 140. https://doi.org/10.1007/s10055-024-01035-7.