JOURNAL OF THE EUROPEAN HONORS COUNCIL

Note

A roadmap for translating educational research into practice: A case description within honors education

Hanne ten Berge,[1] Esther Canrinus,[2] Ada Kool,[3] and Joke van der Wouden[4*]

1 Utrecht University, Utrecht, the Netherlands; j.h.tenberge@uu.nl
2 Research Centre Talent, Teaching and Learning, Hanze University of Applied Sciences, Groningen, the Netherlands / Department of Education, University of Agder, Norway; esther.canrinus@uia.no
3 Utrecht University, Utrecht, the Netherlands; a.kool@uu.nl
4 University of Groningen, University Medical Center Groningen, Groningen, the Netherlands; j.m.van.der.mark@umcg.nl

* Correspondence: j.m.van.der.mark@umcg.nl

Received: 7 April 2021; Accepted: 27 May 2021; Published: 22 June 2021

Keywords: autonomy; research dissemination; professionalization

---

1. Introduction

Many honors educators have a need for evidence-based input and tools on how to plan their teaching and their interactions with honors students (Reis & Renzulli, 2010). At the same time, an increasing amount of research is available on the specific characteristics and needs of honors students and teaching. Connecting this need for professional input with the increasing quantity of research findings, however, remains a challenge. In this note, we provide a roadmap for translating educational research into an accessible product for educators from the start of a research project. We present our project as a case to illustrate the roadmap. In the project, our research results have been translated into an e-module to allow for professionalization among honors educators in higher education.

Before presenting the roadmap, we first describe the focus and key findings of our project, followed by a short description of the e-module, which was developed to link our research results back to practice. In describing the roadmap, we then present the six steps we took in our research project and the development process.

2. Focus and key findings of the research project: The relevance of autonomy

Our research focuses on the need for autonomy among honors students. "Autonomy" refers to the willingness and will of people regarding their behavior and is about being self-regulated in the technical sense of the word (Ryan & Deci, 2017). Research within higher education has shown that the extent to which students feel supported in their autonomy affects their motivation for learning (Martinek, Zumbach, & Carmignola, 2020), their perceived self-efficacy (Duchatelet & Donche, 2019), and their well-being (Neufeld & Malin, 2020). Although autonomy is important in all educational settings, it is even more important within the context of honors education, for at least two reasons (Marra & Palmer, 2004; Rogers, 2007):

- honors students often have characteristics that are related to a larger need for autonomy compared to regular students (e.g., characteristics such as "proactive," "out-of-the-box thinker," and "responsible");
- honors programs often require more proactive learning and involvement in the curriculum from students.

Yet, educators often struggle with the question of how to support autonomy for honors students (Van Eijl et al., 2010; Kingma, Heijne-Penninga, & Wolfensberger, 2018).
We have investigated honors students' need for autonomy and how educators can tune in to that need. By doing so, we have addressed the balance in offering both freedom and structure, which is imperative in creating autonomy (Eckes, Grossmann, & Wilde, 2018). Several studies were conducted using interviews, focus groups, and video analysis in classroom settings. Subjects were educators as well as students participating in both regular and honors higher education. Our results show that it is important to give students autonomy at the beginning of long-term assignments, while short assignments require more control from the educator. We have also found that students' need for autonomy is influenced by the context of the regular educational program; the existence of more regulation and straightforward assignments in the regular program enhances students' need for autonomy and open assignments in honors programs.

The research has also brought forth concrete tips for educators in how to (1) recognize students' need for autonomy, (2) design assignments (and their supervision) based on that need, and (3) experiment with supervision styles that fit their own characteristics as supervisors. A key factor in these tips was to stimulate students' proactive behavior.

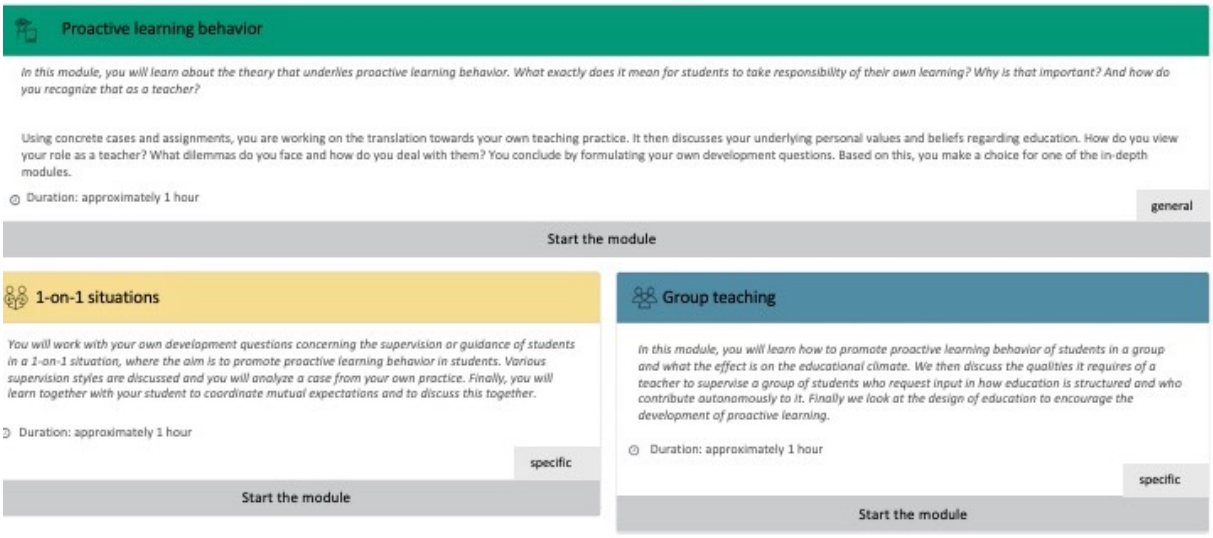
3. Results into practice: An e-module for honors educators

Based on our findings, we developed a practical product in the form of an online module (an e-module) for honors educators. The aim of this module is to teach educators to recognize, support, and stimulate proactive learning behavior among students, for example, by broadening their behavioral repertoire or by using specific didactics. The module consists of three parts, as shown in Figure 1. It starts with a general part that addresses the theory underlying proactive learning behavior. Through concrete cases and assignments, educators are invited to put what they have learned and reflected upon in the module into their own teaching practice.

This general part is followed by two additional parts that also contain concrete cases and assignments in addition to information on the topic at hand. One part focuses on one-on-one situations (such as practicing with supervision styles), whereas the other part focuses on

teaching groups of students (for example, how to design learning activities in order to promote proactive student behavior). Educators can choose if they want to complete both or one of these parts, as well as the order in which they would like to complete them, depending on their own learning questions. Educators can also choose between an individual option with standard feedback or a personalized trajectory with individualized feedback and contact with a trainer.

Figure 1: The three parts of the e-module



4. Roadmap: Putting educational research into practice

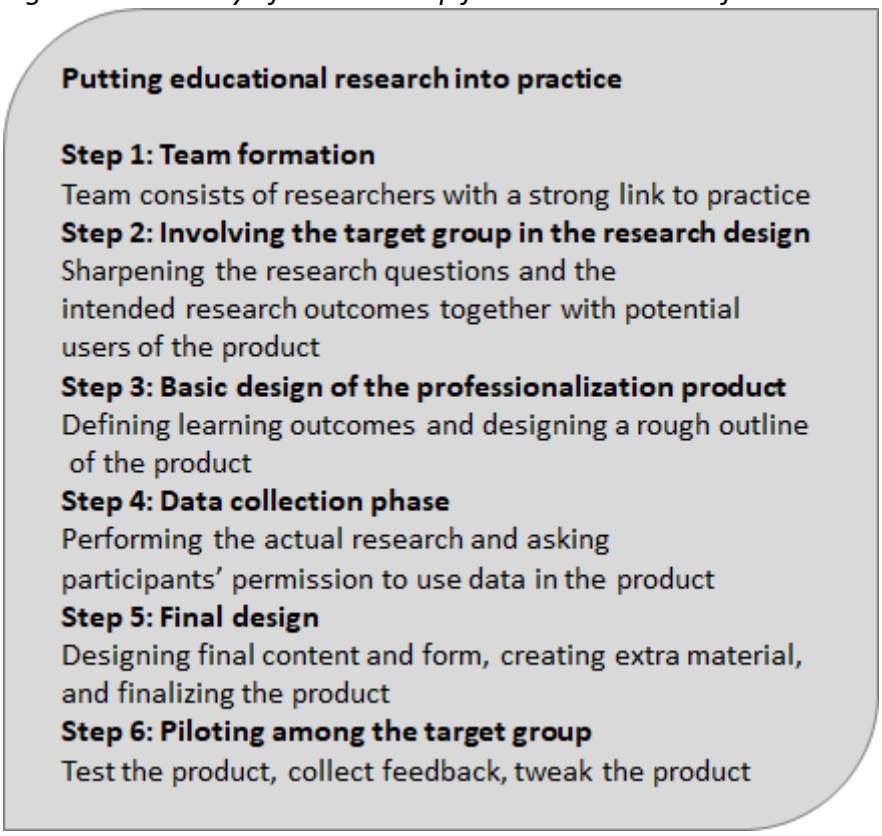
Based on our experience with developing the e-module, we created a roadmap as a suggestion to others who want to put their research findings into practice and to strive for that goal from the start of a research project. Through the roadmap, we provide ideas and steps for the design of, and work on, such educational projects. We have used our research project and the development of the e-module, as described above, as an illustrative case. Figure 2 presents an overview of the roadmap. In the roadmap, “product” refers to the output developed for professionalization purposes, the developed e-module in our case.

4.1. Team formation

The first step is to create a project group that has, aside from research competence, sufficient knowledge of and focus on educational practice and the translation of theory into practice. This step may require the addition of project members with competencies in consultancy, teacher training, or educating students. The inclusion of these project members can ensure that the research will lead to answers and products that are useful for educators.

Case: Signals from educational practice were the initial trigger for our research. All researchers involved in the project—teachers, teacher trainers, and an educational consultant—were linked to educational practice themselves. During the project, one educational consultant was added to the project team to further strengthen our curriculum development knowledge and skills for the creation of the e-module.

Figure 2: Summary of the roadmap for the translation of educational research into practice



4.2. Involve the target group in the research design of the project

The next step is to ensure that the target group is involved during the design of the project's terms and conditions and while deciding on what data and materials to collect. The research questions and the intended outcome should be checked and sharpened to ensure that they are relevant for educators and will fit their needs and wants. Other factors to consider are: the type of product (such as training, format, practical articles, or lists of tips) and the characteristics of the product (such as training size and online versus hard-copy products). In this way, it will become clear early in the project that the product under design will fit the needs of the target group and that the characteristics of the product will be aligned with their preferences. This group can also provide feedback at various stages of the development process and may also be available to pilot the prototype of the product.

Case: During the design phase, the main themes of our research project were aligned with an advisory committee, which consisted of a group of teachers from four higher education institutions from various departments. We consider them representative of the project's target group. To make sure a useful product would be designed for putting the research results into practice, meetings with educators were organized at each of the institutions that were involved. The goal of these meetings was to inform educators about our research and to provide early results; we also inventoried all practical issues and preferences for further professionalization among educators. The educators were asked to fill out memos about what they wanted to learn, with the help of a set of identical questions in each group. A sample question was, "Describe your preferred learning activities, such as cases with videos, direct exchanges with colleagues, learning more about theories, reflecting and discussing

how to put research into practice, practice through role playing, et cetera." We also asked each group to design their ideal professionalization trajectory on flip charts, which led to different types of information that we had difficulty framing because of the diversity of the results. This result was an interesting outcome of this phase, because it showed us the varying needs of educators based on the different professionalization cultures at the institutes involved. We analyzed the results from all meetings and concluded that e-learning was the most suitable form for our product. We decided to create multiple pathways through the e-module to cater to the different objectives and to offer an individual option with standard feedback within the e-module next to a personalized trajectory with individualized feedback.

4.3. Basic design of the professionalization product

We suggest making a basic design of the product early on, which allows for communicating plans with everyone involved in the project. The design will offer everybody, including those who focus on the research, an overview of the intended product, the types of data required (e.g., video fragments that are both used for answering the research question and may be used in the product), and the desired quality of that data. In that way, everybody will know which types of data are useful for the product; if possible, participants will be able to collect this type and quality of data during the data collection phase.

Case: During this stage, we formulated the learning goals of the e-module. To put the research results into practice, we designed a rough outline of the product in which data collected from the research could be included. Next, we discussed the outline within the project team. We could also have presented the outline to the advisory committee or to another group of educators, although, due to time constraints, we did not include this step in the process.

4.4. Data collection phase

When preparing data collection, it is important to think about which kinds of data might be used for the product. For example, if the intention is to include video fragments or interview quotes in the product, then participants must be asked for additional permission to use their data for the professionalization product. In this case, simply asking for informed consent to conduct the research is insufficient.

Case: During our data collection, participants were not only asked for informed consent but were also asked for their permission to use their data (which was anonymous) in the e-module. For example, quotes from interviews were later implemented in learning activities in the e-module. We initially planned to use a few video fragments in the e-module, but, unfortunately, the video quality turned out to be insufficient. We then decided to use fictitious classroom situations instead of the original video material.

4.5. Final design

This phase includes the design of the final content and form of the product. For this step, the intended learning outcomes should be used as a starting point, with the design of the product proceeding backward; which learning activities the participants should do to reach those objectives should be considered. The basic setup should be worked toward a more detailed version.

The next step is to develop and write the theoretical content and learning activities using the data and materials that have been collected. During the writing, the target group should be considered and additional material should be collected as needed. During this phase, maintaining frequent contact with others who become involved (module developers, animation designers, video specialists, et cetera.) is necessary to keep everybody on track and to make decisions that will lead toward a consistent product.

Case: When finalizing the e-module, we implemented specific principles to facilitate the translation of theory into practice. The e-module was written in non-scientific language and from a practical perspective. We chose to use the Dutch language and to design the e-module in such a manner that the e-module could also be used by, for example, vocational education practitioners. We collected and created additional material, including interviews with teachers and a whiteboard animation. As soon as possible after the COVID-19 pandemic is over, we will take pictures from regular classroom situations and film scripted cases, including classroom dialogues. In addition, we have designed learning activities in which teachers were encouraged to reflect on their own teaching practice, keeping the theory in mind. For the technical part of the e-module, we were supported by the multimedia department at one of our institutions.

The advisory committee, which was involved from the start when we were defining the project goals, kept us on track during the daunting first months of the COVID-19 crisis by regularly asking us if we could provide them with some of the content of the e-module. We hope that, during the later phase of piloting and organizing meetings at the institutions, this committee will be helpful by attracting colleagues and enabling us to create pilot groups.

4.6. Piloting among the target group

The final step of designing a product for professionalization is to test the product among a representative group of members from the target group. In that way, whether the intended learning outcomes have been reached can be checked. Other factors to be checked include: (1) whether the language used in the product is in line with the target group, (2) whether the time investment for the product is as indicated, (3) whether the theory connects to prior knowledge, (4) which learning activities are perceived as being most/least useful, and (5) whether educators could transfer what they have learned from the e-module to their day-to-day practice. All feedback should be collected before looking for overarching themes and suggestions. This information should then be used to finalize and fine-tune the product.

Case: As a final step, we would like to pilot the modules to collect feedback and suggestions from educators using the e-module. We want to check whether the information from the e-module is useful for their teaching practice, aligned with their prior knowledge, and whether the language is understandable. This information may lead to adjustments. We will pilot our modules as soon as we are able to create the final materials.

5. Concluding remarks

In this note, we have presented a roadmap for the translation of research into a practical educational product for honors educators. In our opinion, it is crucial to loop scientific findings and insights back into educational practice so that educators can benefit from

research. To be able to do so, researchers should work together with practitioners, educational consultants, and program developers from the start of a project. In this manner, the research can be designed in such a way that the data and results can be used in the development of an educational product. A successful product is one that fits teachers' needs and aligns with personal teaching activities. We thus recommend including inventory meetings with potential end-users to sharpen the research but also to receive input on any practical issues the end-users foresee.

In conclusion, we have developed a professionalization product based on teacher needs, theory, and our research findings. During this process we developed a roadmap that can support researchers, teachers, and educational consultants in creating a professionalization product from future educational research.

References

Duchatelet, D., & Donche, V. (2019). Fostering self-efficacy and self-regulation in higher education: A matter of autonomy support or academic motivation? *Higher Education Research & Development, 38*(4), 733-747. https://www.semanticscholar.org/paper/Fostering-self-efficacy-and-self-regulation-in-a-of-Duchatelet-Donche/f1f87619e5a952347a0a0fd4deaf45a707ac561b

Eckes, A., Grossmann, N., & Wilde, M. (2018). Studies on the effects of structure in the context of autonomy-supportive or controlling teacher behavior on students' intrinsic motivation. *Learning and Individual Differences, 62*, 69-78. https://www.sciencedirect.com/science/article/abs/pii/S1041608018300189?via%3Dihub

Kingma, T., Heijne-Penninga, M., & Wolfensberger, M. (2018). "Offering freedom" as a teaching strategy for honors students. *Journal of the European Honors Council, 2*(1), 1-5. https://doi.org/10.31378/jehc.7

Marra, R., & Palmer, B. (2004). Encouraging intellectual growth: Senior college student profiles. *Journal of Adult Development, 11*(2), 111-122. https://link.springer.com/article/10.1023/B:JADE.0000024544.50818.1f

Martinek, D., Zumbach, J., & Carmignola, M. (2020). The impact of perceived autonomy support and autonomy orientation on orientations towards teaching and self-regulation at university. *International Journal of Educational Research, 102*, 101574. https://www.sciencedirect.com/science/article/abs/pii/S0883035519321548

Neufeld, A., & Malin, G. (2020). How medical students' perceptions of instructor autonomy-support mediate their motivation and psychological well-being. *Medical Teacher, 42*(6), 650-656. https://selfdeterminationtheory.org/wp-content/uploads/2021/02/2020_NeufeldMalin_MedicalStudents.pdf

Reis, S. M., Renzulli, J. S. (2010). Is there still a need for gifted education? An examination of current research. *Learning and Individual Differences, 20*, 308-317. https://www.sciencedirect.com/science/article/abs/pii/S1041608009000909?via%3Dihub

Rogers, K. B. (2007). Lessons learned about educating the gifted and talented: A synthesis of the research on educational practice. *Gifted Child Quarterly, 51*(4), 382-396. https://aea11gt.pbworks.com/f/LessonsLrnd-Rogers.pdf

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness*. Guilford Publications. https://psycnet.apa.org/record/2017-04680-000

Van Eijl, P., Pilot, A., Wolfensberger, M. V. C., & Schreve, L. (2010). Talentontwikkeling in honours programma's: Een verkenning [Talent development in honors programs: An exploration]. *Tijdschrift voor Hoger Onderwijs, 28*(4), 182-198.