

From honors education to regular education: the motivation and role of honors teachers as linking pins in innovations

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Abstract

This exploratory study is about the question of how teachers perceived how their experience with honors education have promoted innovations in their regular education. In this study, we interviewed teachers from four universities of applied sciences about this question. We used a mix-method approach with interview questions and Likert-scale questions. Interviews were conducted in 2019 and 2020, which resulted in 11 cases of innovation in regular education c.q. bachelor/master programs (all non-honors) inspired by experiences with honors education. A first part of this study showed how structural honors characteristics were important in this transfer structural characteristics (Van Eijl, Weerheijm & Pilot, 2023). The research question of the second part focusses on the role of the honors teacher in the innovations. The method of cross-case analysis was chosen. Based on an analysis of the interview data, the results were summarized and illustrated with quotes from the interviews. These innovations are at the level of a single module but also at the level of an entire undergraduate program. Experiences with honors education are frequently mentioned by the teachers as a motivation to work on the innovation of their regular education. These teachers rated the positive effect of honors education for their innovations in regular education as somewhat to (very) stimulating. In these innovation, the teachers see themselves as "linking-pin", intrinsic motivated to actively transferring experiences from honors programs to innovations in regular programs. According to these teachers honors programs have an interesting innovation potential for regular programs.

Keywords: honors program, innovation, linking-pin, higher education, boundary crosser, change agent

1. Introduction: learning from innovations in honors education

When honors programs were introduced into Dutch Higher Education, stakeholders assumed that honors education could stimulate innovation in regular education c.q. bachelor/master programs (all non-honors) (Wolfensberger et al. 2004). Honors education, it was expected, would not only provide an additional development opportunity for the more motivated and able students, but also give an impetus to the process of raising the quality of regular education and thus be beneficial for all students.

Honors programs refer to specially designed programs for students who can and want to do more than the regular program offers them (Van Eijl, Pilot & Wolfensberger, 2010). These programs are intended to further develop their talents. Often these programs are extra-curricular and students earn a separate degree or certificate upon completion. Typical features are more open, complex and authentic assignments, more multi/interdisciplinary collaboration (within various domains and between institutions), more room for self-direction (autonomy) and creativity of students, and more attention to community-building, personal development and critical reflection (Coppoolse, Van Eijl & Pilot, 2013). In this honors education, the teacher primarily has a coaching and inspirational role in the student's study and work. Honors programs, by their very nature (Van Eijl, Pilot & Wolfensberger, 2010), are not uniform or static. A study (Allen, Belfi, Van der Velden, et al. 2015) of honors programs at four research universities and four universities of applied sciences in the Netherlands that participated in the Sirius program (a stimulus by the Dutch government 2008-2015) revealed a wide variety of honors programs in the Netherlands. The study of Allen et al. (2015) also shows that students participating in honors programs are generally more motivated, engaged, active, and ambitious students with a need for deepening or broadening their education.

In previous studies (Van Eijl & Pilot, 2019; Wolfensberger, Van Eijl & Pilot, 2012, 2004) it became clear that good examples of honors education are sometimes inspiring for regular education and lead to changes there. This was the reason for the research 'From honors education to regular education'. A first part of the study showed which structural honors characteristics were important in this transfer (Van Eijl, Weerheijm & Pilot, 2023). This second part of the study, which is in this article, focuses on the question of the course of the innovation processes as perceived by the teachers involved. Teachers from four universities of applied sciences (UAS) were interviewed who had experience with this type of innovation process. Semi-structured interviews were conducted with them in 2019 and 2020 which yielded 11 cases of innovation in which honors experiences were an inspiration for the teachers involved. Based on an analysis of the completed interviews (and Likert-scale questions), answers were summarized and illustrated with quotes from the interviews. After a cross-case analysis, a number of conclusions were drawn. This research came about at the request of the "HBO honors network" in the Netherlands. This is a network of coordinators of honors programs at universities of applied sciences.

2. Theoretical framework

A previous study (Van Eijl & Pilot, 2019) focused on the collection and analysis of good examples of honors education. The idea behind that study was that these examples are important in the innovation of education because "a good example is good to follow". The

analysis revealed that six of the 19 examples had been inspiring for innovation in both other honors education and in regular education. Here, the context of a good example is important because a good example can usually not be copied and used successfully without adaptation to that context. However, the educational design of the good example or elements of it can be inspiring to others. To draw lessons from peer experiences or insights, teachers need to “translate” a good example to their own context (Kelchtermans, Ballet, Peeters et al., 2008). We expected therefore that the teachers, who have gained experiences in honors education, and work on innovations in regular education will play an important role in such innovations. A theoretical framework with factors involving teachers in innovation processes in education is therefore a starting point in this study. These innovations can be a renewal in educational approach and/or content. The theoretical framework is intended to provide more insight into the role of the teachers involved.

2.1 The teacher as change agent

The teachers who make the adaptation from honors education to regular education can be considered as “change agents” in the sense described by Havelock (1970) in his “Guide to innovation in education”. In this guide he calls a change agent a person who facilitates an innovation. The change agent can be someone from outside the educational institution as well as from within. The importance of these change agents in educational innovation is emphasized by Fullan (1993): “The professional teacher, to be effective, must become a career-long learner of more sophisticated pedagogies and technologies and be able to form and reform productive collaborations with colleagues, parents, community agencies, businesses, and others. The teacher of the future, in other words, must be equally at home in the classroom and in working with others to bring about continuous improvements. Schools need teachers as change agents and teachers should strive to become change agents as well.”

Van der Heijden (2017) studied change agents among primary school teachers in the Netherlands. Characteristic features of teachers who can be considered change agents, she found: mastery (focus on students, focus on student learning, confidence in own ability and professional motivation), collaboration (professional collegiality), entrepreneurship (focus on innovation at classroom level, focus on innovation at school level) and lifelong learning (focus on own knowledge development, focus on professional action).

Qualitative research on experiences with honors programs and the transfer of innovations from honors education to regular education was conducted by Otto, De Jong and Zunderdorp (2018). Teachers and staff members from seven research based universities and four universities of applied sciences in the Netherlands participated in that research. They studied the transfer of successful experiments in honors education to regular education. In the 48 interviews conducted, respondents (mostly teachers) said that they experienced honors as a testing ground because they were able to try out new or different educational formats and content with a group of motivated and able students. Experiments that the teachers carried out in their honors programs, were for example, stimulating students' personal development, encouraging their self-direction and working with real life cases.

Interdisciplinary and multidisciplinary work was also frequently mentioned, as was offering new or different subject content. When asked to what extent transfer actually took place, respondents in the study of Otto et al. (2018) said that it was difficult to map this completely structurally and that transfer sometimes happens and sometimes it does not. The presence

of an honors program is therefore not a 100% guarantee for innovation. Examples of transfer they mentioned included coaching skills, applying new methods, training skills or opening up honors activities to regular students. According to the respondents, innovations are more likely to succeed if they clearly solve a problem. Respondents said innovations are more quickly implemented if there is an encouraging culture of innovation within regular education. The respondents do not think it is desirable to direct transfer from higher in the hierarchy of the institution. According to them, the responsibility for transfer lies with the teachers. However, also according to them, policies within the institution can support the process of transfer.

Kolster (2020) conducted qualitative research on the diffusion of honors methods into regular education. He conducted three case studies at research based universities and two at universities of applied sciences. Regarding the content of education, it became apparent that teachers experimented with educational content from honors education, that they introduced into regular education. At the organizational level, new working relationships emerged between teachers involved in honors education. Often heard external effects were increased reputation and visibility of the institution because of offering honors education. He notes that diffusion from honors education to regular education occurred mainly among teachers who taught in both forms of education. Haasnoot (2021), in her study on the desired diversity in honors programs, says something similar: "Because teachers are employed in both honors and regular education, innovation can spread through the institution like an oil slick".

2.2 Honors teachers as boundary crossers and linking-pins

Honors teachers who also teach in regular education can be regarded as boundary crossers. The term boundary crossing has been used by Engeström, Engeström and Kärkkäinen (1995) to describe how different professionals (in their case in science, in education and in manufacturing companies) often deal with different knowledge domains and subcultures, but still manage to work together. Also honors teachers who teach in the regular program have to deal with two different domains that work in different ways.

Boundary crossing can then be understood as eliminating the differences between domains (discontinuities) by making connections between different practices and finding a way to act and communicate. Boundary crossers have long been recognized as important persons in organizations and networks because they are able to bring elements from one practice to another (Akkerman & Bakker, 2012; Fortuin, Post Uiterweer, Gulikers, Oonk & Tho, 2020). Boundary crossing can lead to knowledge innovation, to hybridization of concepts and cultures, to new perspectives, and to renewal of entire professions. Finally, boundary crossing can lead to a process of transformation of practices. The contact between practices can create for instance new hybrid practices (Akkerman & Bakker, 2012).

The linking-pin model developed by Likert (1967) is in line with this. It is a communication model developed for an organization with different groups of actors. Actors who participate in different groups in the organization, can then be a linking-pin, an intermediary by which optimal coordination can take place between the different groups.

3. Research question, research methods and cases

Below are the research question, the sub questions, the research methods of this study and the cases described.

3.1 Research question

The research question in this exploratory qualitative study is to gain a better understanding of the processes of the impact of honors experiences as perceived by the teachers involved, on the innovations in regular education in the cases studied:

What do interviewed teachers with experience in honors teaching do in their innovations in regular education c.q. bachelor/master programs (all non-honors)?

With the sub questions we zoom in at how teachers consider the importance of their honors experiences for the innovation in regular education, how successful they estimate the innovation to be, how they view their role in the innovation process, and what motivated the teachers involved and the program management to implement the educational innovation.

Sub questions:

1 How do the honors teachers of the cases studied view the stimulating effect of honors education on the innovation of regular education?

2 What is according to the teachers involved, the degree of success of the innovation of regular education, and of the influence of honors education?

3 How do the teachers describe their own role in the process of innovation of regular education?

4 What motivated the interviewed teacher(s) and the program management involved, to implement the educational innovation?

3.2 Research method and data collection

The research method of cross-case analysis was chosen for this study (Creswell, 2007). A selection was made of cases of educational innovation in regular education in which honors education was likely to be a source of inspiration. This selection was made through the members of the Dutch Honors Network of Universities of Applied Sciences. These members are coordinators of honors programs within their institution. They were well informed about honors programs and educational innovations within their universities and about who was involved in this form of educational innovation. All members of the network were asked to provide cases where teachers of honors education were involved in innovations in regular education where they used their honors experiences. This network included 16 universities of applied sciences that are involved in honors programs. A total of eleven cases were submitted from four universities of applied sciences. All cases were accepted in this study and all teachers (of the 11 cases) agreed to cooperate in the study and were subsequently interviewed by the researchers (the first two authors). We used a mix-method approach with interview questions and Likert-scale questions. Both were included in a questionnaire which can also be considered an interview guide (see enclosed appendix). The interview questions in the questionnaire allowed the participating teachers to describe their own experiences, so more insight could be gained in the role of the teachers by this 'inside look'.

A problem that can't be excluded by this form of self-reporting, is that participants may try to give the 'correct' responses they think researchers are looking for, or try to come across in most socially acceptable way, i.e. social desirability bias is possible, which can lead to giving biased responses. The same is true for attribution bias. However the interview method allows to pose more additional specific questions to gain a better insight in the transfer effects. The questionnaire was based on the main components of the theoretical framework. The method of semi-open interviews was chosen to give the interviewees plenty of room to contribute their own experiences and opinions in the widely varying cases.

All interviewees checked the transcribed and summarized text of the (audio-recorded) interview and edited it if necessary (member check). Data were categorized by the first two authors until agreement between them was reached. The scores about the role of the honors teacher were anonymously added up and included in Table 2, 3 and 4. The results on the open questions were clustered and summarized. In addition, documents of the universities involved, on the educational innovation in question were also analyzed. Matching quotes were taken from the interviews for illustration. Finally, conclusions on basis of table 2 and 3 were drawn by the rule that higher scores equal higher spin-off effects from the results.

3.3 Eleven cases

The interviews with teachers yielded eleven cases of regular education that had changed in part because of experiences with honors education. The eleven cases are listed in Table 1 with a brief indication of the educational institution, content and context of the education.

Table 1: Overview of the cases studied

Case	Innovation
1. Minor+ Silicon Venturing Rotterdam (Rotterdam UAS)	With student projects at the Albert Schweitzer Hospital (ASZ). Size: 30 EC. (EC = European Credit Transfer System).The minor is open to all fourth-year students of UAS Rotterdam and other UAS. These are both honors students and non-honors students. The final requirements are described in the university's competency 'Learning to innovate'.
2. Minor+ Promising Care (Kansrijke Zorg) (Rotterdam UAS).	Midwifery program (30 EC) of the Institute for Healthcare (IVG) is open to students from all programs. Students learned and used a narrative approach, had to guide the community meetings more themselves and steered their work projects themselves.
3. Bachelor program Sport marketing and Management (Rotterdam UAS)	An educational design has been developed in which students are made more curious. They had to organize more themselves, do workshops from external organizations and have to meet stricter requirements by

	the assessments. Social skills are important from the beginning of the program.
4. Bachelor program Community 'Creative Management & Sales' (Rotterdam UAS)	Bachelor program (240 EC, four years) the Community 'Creative Management & Sales' with more open and complex issues, more teamwork and more community building.
5. Master module Social Innovation Physical Therapy Musculoskeletal Therapy (Saxion UAS)	Part of the 3-year master program (parttime MSc) Musculoskeletal Therapy for physical therapists where students work on self-invented and self-directed projects in social innovation.
6. Minor Law in Practice for non-lawyers, module: law in practice II (Saxion UAS)	Module 'Law in practice II' of the minor Law in Practice for non-lawyers: an multidisciplinary group of 3 rd and 4 th year students from different disciplines. Focus on skills such as multi-disciplinary collaboration, entrepreneurial skills, personal development (getting to know oneself).
7. Course ('lab') Innovation and Entrepreneurship International Resource Management course 3 rd year (Saxion UAS)	(5 EC, 10 weeks) in the third year of the International Human Resource Management program. This course is part of a larger whole consisting of five 'labs' in the third year. More emphasis on skills and personal development.
8. Graduation program Human Resource Management (HRM) and International HRM program (Saxion UAS)	Multidisciplinary work of the students and freedom to graduate with innovative professional products.
9. New design Curriculum Bachelor Built Environment (Hanze UAS)	Bachelor Built Environment (BE) (240 EC, four years) was revised several years ago. The experiences with the honors program were used for the revision. BE originated from a combination of the programs Civil Engineering, Construction and Spatial Development.
10. Innovation curriculum line in Bachelor Law (Hanze UAS)	Curriculum line (5 EC) in Bachelor (HBO) Law and Social Legal Services. Some elements/assignments of the honors program are included in the regular program.
11. Innovation course Journalism with Fact Checking (UAS Utrecht)	The experiences in the honors program with education in Fact Checking have been used in introducing this subject in the regular Bachelor program Journalism.

The scale of the innovations in the cases varied. Three innovations involve large-scale changes of four-year bachelor programs where a new pedagogical approach was introduced derived from experiences in honors programs. Other innovations are of a smaller scale.

These involve three minor programs, modules (both bachelor and master), three (parts of) undergraduate courses and a graduate program. For the teachers involved it were innovations because not only a new pedagogical approach was used, often with more coaching, but also new content was introduced and sometimes new forms of assessment.

4. Results of this study

The results are arranged according to the previously formulated sub-questions. They are illustrated by quotes from the interviews.

4.1 How do teachers view the stimulating effect of honors education on the innovation of regular education?

In nine of the eleven cases, the teachers interviewed rated the stimulating effect of honors education for innovation of regular education as somewhat stimulating to very stimulating (see Table 2) .

Table 2 Question: In your opinion, to what extent did the approach in honors education stimulate innovation in regular education? Circle the most suitable alternative.

1	2	3	4	5	Average score N=11
Not stimulating but discouraging	Stimulating effect: disappointing	Stimulating effect: somewhat	Stimulating effect: moderately	Stimulating effect: very much	
0	0	2	3	6	4.4

The average score of the eleven cases is 4.4 on a five-point Likert scale. So working in an honors program is considered by the teachers interviewed as somewhat to very important to stimulate innovation in regular education. From the explanation teachers give by their answer they make clear that they see their honors experience as a source of inspiration and as an experience to fall back on. Quotes from the answers illustrate this. .

Some quotes corresponding to this question:

An interviewee added the following note: *"Gigantic effect! (Case 6 Law in Practice for Non-Lawyers) It's about daring things. Coming up with concepts together with the students, I dared to teach the new format because I saw the new approach working with honors students as well. I took a lot away from the honors program."*

Another interviewee referred to the principles of honors education:

"It was an innovation where the principles of honors education were applied (case 5 Master's module Social Innovation). The main honors principles applied here are: authenticity, community-building and reflection."

One group of teachers mentioned that they gained also personally:

"We ourselves have benefited very much, also on a personal level, from honors education (case 4 Bachelor Community Creative Management & Sales): The inspiration came mainly from the honors competencies as described by Veltman-Van Vugt (2018). Always centered on complex real problems. "

All three quotes illustrate how teachers applied honors principles in regular education whereby their experiences in honors were essential.

4.2 What is according to the teachers involved, the degree of success of the innovation of regular education, and of the influence of honors education?

The teachers interviewed estimated the success of the innovation of regular education renewed under the influence of honors two times as very successful, four times as successful, three times as somewhat successful (see Table 3). The average score of the seven cases in which teachers completed this question was 3.9 on a five-point Likert scale. Which can be interpreted that the teachers evaluated the success of the innovation on the average fairly successful.

Table 3: Question: What is your impression of the success of this innovation?

1	2	3	4	5	Average score N=9
Renewal has gone wrong	Renewal has been disappointing	Somewhat successful	Fairly successful	Turned out to be very successful	
0	0	3	4	2	3.9

Some teachers give an explanation by their score. In the first quote the complexity of the innovation process in one case is illustrated. In the second quote a teacher refers to the stimulating effect on students.

Some quotes corresponding to this question:

One teacher remarked that the innovation she was involved in, was also laborious. In her case, three bachelor programs were merged at the same time and also the pedagogic design was renewed (Case 9 New design Curriculum Bachelor Built Environment). The pedagogical design was inspired by the honors experiences of some of the teachers involved,

The teacher of case 8 (Graduation trajectory HRM): *"We 'touched', so to speak, students. It stimulated motivation and that brought out the importance of taking initiative and directing their learning process themselves. The success of the projects and the satisfaction of the students were very different. We hope to influence that even more positively next year with more coaching and more structure."*

How sustainable is the innovation?

The success of the innovations as perceived by the teachers, is also visible in their estimation of the sustainability of the innovation. In all cases the innovation is considered by the teachers involved as sustainable, but with considerations about funding, student interest and the observation that sometimes there is only a limited group of teachers being able to shape the innovation. In two quotes from the explanation of the teachers by this question it is emphasized that it is important that the management gives room to the teachers for this kind of innovations.

To illustrate this, a quote from an interview with teachers in case 4 (Bachelor Community Creative Management & Sales): *"For the sustainability it is important that we use new ways of teaching. The new director gives us the space to develop our program with the dynamics in our discipline and the wider environment."*

Another quote illustrates the support for the sustainability of the innovation in case 6 (Law in Practice for Non-Lawyers):

"Yes anyway from team leader to management. They want precisely this change: students more 'in the lead' and they are looking for colleagues who want to initiate this."

In the quotes it is emphasized by the teachers that it is important that the management gives room to the teachers for this kind of innovations.

4.3 How do the teachers describe their own role in the process of innovation of regular education?

The teachers of ten of the eleven cases (one teacher didn't respond to this question in the questionnaire) describe their own role in the process of educational innovation as an inventor of educational innovation and/or a forerunner in implementing the idea. Seven teachers said they were both an inventor (a) and a forerunner (b) (see Table 4 'double'). Nobody says that he or she is someone who, only after the first try-out(s) of an educational innovation (option c), will join colleagues. Or someone who participates finally in an educational innovation if the majority of colleagues have done so or someone who is not inclined, or only very late, to participate in educational innovation activities.

Table 4 Question: How do you characterize yourself in the process of reforming mainstream education?

a	b	c	d	e
Inventor of an educational innovation	Forerunner in realizing an educational innovation	Someone who, after the first try-out(s) of an educational innovation, will participate with colleagues	Someone who participates in educational innovation after the majority of colleagues agree passed	Someone who is not inclined, or only very late, to participate in educational innovation activities
2 + 7 (double: a and b)	2 + 7 (double: a and b)	0	0	0

In the interviews, teachers mention their appreciation for the collaboration with others. In two cases there is a duo of teachers in which the two roles a and b are divided, for example in case 1 (Minor+ Silicon Venturing Rotterdam), one is the innovator with new ideas and the other is the bridge builder who helps translate the new ideas into practice.

A quote from the interviews illustrates this (Case 5 Social Innovation Master Module): *“The innovation is supported by me and my two colleagues in this module. But also by the teachers of the other components of this master program. Me and my colleagues were involved in the honors program and also taught in the regular program of the bachelor. That was important for the innovation. It was an innovation because the principles of honors education were applied here.”*

In another case, the teacher began as someone who participated in the innovation conceived by others, but after the first try-outs he starts participating as an innovator. However, this teacher also explicitly refers to the entire teaching staff involved in the curriculum innovation and, according to him, should be given "credit". Another teacher who characterizes himself as an "inventor of innovation" emphasizes that it is not a matter of pushing through a new idea, but ensuring that it is actually realized in a good way by all teachers involved. Yet another teacher notes that people see her as an innovator, but she considers herself to be good at the implementation of a good idea.

The role of the honors teacher in the process of transfer of honors experiences into regular education is however sometimes rather implicit as the following quote (case 7 Lab Innovation and Entrepreneurship) illustrates: *“How the honors approach is incorporated into regular education is hard to describe. A lot already happens automatically because I am an honors teacher. I also see that with colleagues. An honors teacher is going to ask different questions in regular education anyway, has more of a coaching role, is going to search along instead of giving answers.”*

4.4 What motivated the interviewed teacher(s) and the program management involved, to implement the educational innovation?

In all the eleven cases, it appeared that the teachers with experience in honors education were inspired by these experiences (honors pedagogics) and therefore felt more capable of realizing innovations in regular education. The interview excerpt below (Case 2 Promising Care) illustrates this:

“The honors education was definitely stimulating for me. As a teacher, I am stimulated to implement some of it in regular education. Because of the good results in the honors program, I stand, so to speak, more firmly in my shoes and know that the new approach works!”

Often, the teachers interviewed are also the initiators of an innovation. But the reasons for an innovation are diverse. In some cases the professional field changes, to which the program had to be adapted. For instance in case 1 (Minor+ Silicon Venturing Rotterdam) the innovation is mentioned as a means to bring more reality (authenticity) and more coherence into the education.

The regular curriculum however was in some cases also perceived as too dull, not challenging enough and not activating for students, but also not activating for teachers. This also contributed to the motivation for innovation. But the teachers are embedded in the

organization and also more or less dependent of the support of the management, colleagues and sometimes the board of an institution. A quote (case 3 Bachelor Sports Marketing and Management) illustrates the support of the management and board of the institution: *“Our professional field gave us certain insights that led to renewal of our education. A new president of the board provided more opportunities to renew education bottom-up. The new management of the institute put more focus on pedagogical/didactical approach of the different courses.”*

Another quote (case 4 Bachelor Community Creative Management & Sales) illustrates the support of the management and colleagues: *“We are focused on doing more things together as a teaching team. Very consciously we are working on this as coordinators. The community of teachers is very important, there is also a very large informal community. A specific professionalization program is organized for new teachers who are used to front-line teaching, to professionalize in coaching. Important here is the “Leadership of the heart” (Snoek et al., 2019).”*

In one case there was no active support from the management, but the innovation was just allowed: *“The management more or less allowed this innovation (case 1, Silicon Venturing, Rotterdam). There was no money for renewal. The teachers spent nine months, in addition to their other work, working on this innovation. A success factor in the development was working in a duo of teachers!”*

5. Conclusions

From the teachers interviewed and the analyses of their findings, we draw three main conclusions.

First, the teachers explicitly mentioned the possibility of transfer of educational activities and experiences from honours to regular education. Honours education proofs for these teachers with this transfer its educational value as laboratory of innovation.

Second, teachers are, in the cases described here, the driving force behind this transfer. They are as such the ‘linking pin’ in innovating their education. They see it as their responsibility as teacher and as a part of what, for them, teaching is about.

Third, innovation takes place through within their educational activities, much more than through policy or otherwise. The interviewed teachers turned out to be very capable in reflecting on their own experience and education and in that way improving their own education. Innovation spreads through education itself.

More specifically, we conclude that the interviewed teachers rated the effect of honors experiences for the innovation of regular education they were involved in, as somewhat stimulating to very stimulating. In all cases working in an honors program was for them of great importance as a source of inspiration and experience. They indeed promoted the innovation of regular programs in the Universities of Applied Sciences involved as shown by the eleven cases. They considered their cases as successful and sustainable innovations in various universities, programs and courses in a wide range of subject areas. All teachers of the eleven cases describe their own role in the process of educational innovation as an inventor of educational innovation and/or a forerunner in implementing a good idea. There is great appreciation for cooperation with others. Although the teachers, who were interviewed, see themselves as the innovators, they feel that there is a clear task for the management and board of an institution to enable and facilitate such innovations.

The motivations for the innovations are diverse but in nine of the eleven cases, experiences with honors education are explicitly mentioned by teachers as a motivation to work on the innovation of regular education. This is in line with the study of Kottmann, Schildkamp & Van der Meulen (2024) which showed that intrinsic motivation was an important factor for teachers' innovation behavior in higher education. The initiative for these innovations often came from those teachers. In addition, developments in the professional field were also important. In some cases there was an internal need for change because students found regular education boring or not focused enough on reality. All these cases show that the original idea that honors education is a testing ground for educational innovation (Wolfensberger et al. 2004) has been effective and has led to concrete innovations in the regular program.

The teachers interviewed in this study can be considered as internal change agents (Havelock 1970) because they bring change from within. They are also boundary crossers (Engeström et al. 1997; Akkerman & Bakker, 2012) because they cross the boundary between the regular program and the honors program. But more specific they can be described according to their own experiences, as the linking-pin (Likert 1967), bringing their experience and inspiration from the honors program into innovations in the regular program.

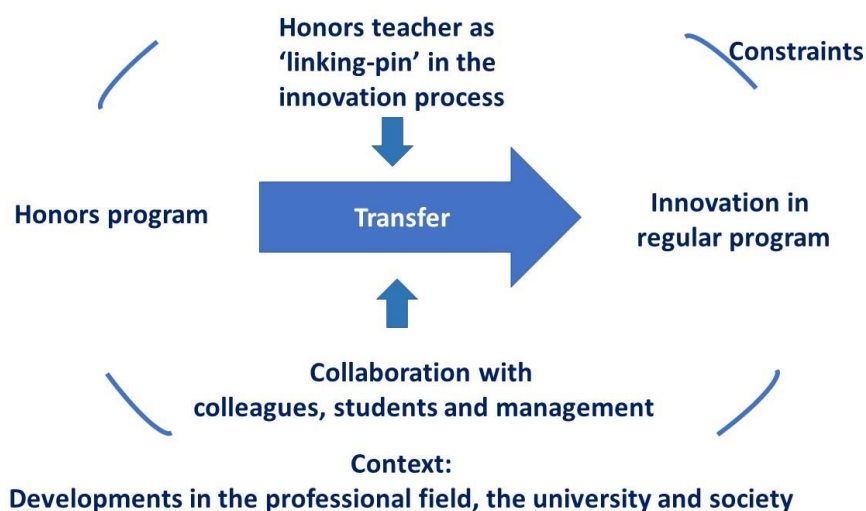


Figure 1: Honors teacher as 'linking-pin' in the transfer of honors education experiences into innovations of the regular education

In figure 1 this linking-pin concept has been visualized for the transfer of honors experiences to an innovation in the regular program or course within the constraints of the organization. The honors teachers in this study are the linking-pins. Their experiences in the honors program stimulated them to bring innovation into the regular program or course they were involved in. Their involvement in one or more honors programs within an institution turned out to constitute an internal source of innovation. However, it appeared essential that honors teachers also teach in regular education, otherwise the transfer effect is less obvious or non-existent as boundary-crossing or linking-pin. So, the honors programs in the cases studied offered not only more opportunities for the more able and motivated students who

participate in the honors programs, but were also an impulse for innovation of the regular program.

6. Discussion

Some limitations of this study are discussed and also the concept of the linking-pin in relation with innovations and how these can be encouraged within an institution.

Selection of cases

The selection of cases and participating teachers was deliberately aimed at examples of transferring the honors experiences of the teachers involved into innovations in regular education. This enabled us to study this transfer process in more detail and to come to a better understanding. The honours coordinators of Universities of Applied Sciences (members of the honours network in the Netherlands) selected the cases for this research. They knew what happened in their own institution and could identify the cases where honors teachers were involved in the innovation of regular programs. Our research focused on the selected cases. Further research including more cases and more institutions can deepen the understanding of this process of innovation in regular programs stimulated by experiences in honors education.

The interview questions

The eleven main questions (see appendix) were answered in the interviews or afterwards in writing, by the teachers. Not all (sub)questions were answered by all teachers, often due to lack of time. This means that the answers to some (sub) questions are not from all eleven cases, but sometimes from fewer cases as shown in table 2-4.

Method of self-report

As before mentioned the method of self-report by a questionnaire and interviews has the strength that it allowed participants to describe their own experiences. But a weakness may be the possibility of the social desirability and attribution bias. So conclusions have to be handled with care with this perspective.

Sustainability

The sustainability of the innovations was perceived positively by the teachers involved. In all cases, the teachers expected the innovation to be sustainable. Two years after the data collection of this study, and despite the lockdown period due to the Covid-19 pandemic, all innovations in the regular program appeared to be still in place. But an innovation can be fragile. In case 6 where the teacher was absent for some time due to her pregnancy, another teacher took over her teaching and went back to teaching 'old-fashioned' frontally. When the first teacher returned from her leave, she picked up the innovative course design again and successfully continued with her innovative approach. This incident does reveal a weak spot that can play a role in innovations: if the teacher who brought about the innovation leaves, the innovation may be reversed. Introduction and training of new teachers in the new way of teaching is therefore desirable for the sustainability of an innovation. We should also bear in mind that many innovations are not static. Each year, new topics and new content may emerge for student projects, teachers may adjust their approach based on evaluation results, or changes in budget or numbers of students which make an adjustment

of the educational design necessary. So, sustainability of an educational innovation is a relative concept.

Quotes from the interviews

The results of this study are intended as a source of inspiration for teachers and management so that they can see the role of the teachers involved in the process of educational innovation and how the transfer of honors education experiences to regular education can work. The quotes in the result section are meant as illustration, but are also intended to give teachers and management more insight in the role of the teacher.

Teachers as the linking-pin

The focus of this study is on the teacher who, inspired by his or her experiences with honors education, initiates or contributes to innovations in regular education. Her or his experiences with honors education have brought her or him more ideas for innovations and, crucially, the experience that an innovation was functional for him or her. This is reflected by one of the interviewed teachers as follows: 'I felt standing stronger in my shoes because of my honors experiences'. The teacher knew from experience that a certain innovation could work in practice. These teachers can be characterized as internal change agents (Havelock, 1970), boundary crossers (Engeström, et al. 1995; Akkermans & Bakker 2012) or linking-pins (Likert, 1967). We prefer the latter designation in this study. The honors teachers we interviewed were actually the intermediaries between the honors and the regular program. But even more, they creatively used their honors experiences for the innovation of the regular program. We were surprised by the effectiveness of this form of innovation from within, in which honors programs successfully functioned as a laboratory for educational innovation, thanks to these teachers.

Honors is 'ongoing'

Honors programs are not static but constantly changing because they respond to current issues and developments that are challenging for honors students. The adoption of elements of the honors program in regular education can also be an extra stimulus for the honors program to keep innovating. For example, the interview at case 3 (Sport Marketing and Management) showed that the honors program in that institute had made a renewal effort in order to continue to fulfill its function as a laboratory for educational innovation.

Generalizability of the linking-pin concept

As this study showed, the experiences gained by honors teachers in honors education are for them a source of inspiration to bring about successful changes in the cases studied in the regular program where they also teach. This provides their institutions with its own testing ground for innovations and, if honors teachers cooperate and exchange experiences, sometimes with a network for educational innovation. Other studies (Allen, Belfi, Van der Velden, et al., 2015; Otto et.al., 2018) also provide evidence for the linking-pin concept in such innovations in more universities. But also for the importance of intrinsic motivation for the teachers involved in innovations in higher education (Kottmann et al., 2024). Further research is needed to analyze in more detail the extent of the functioning of the "linking-pin concept" in universities and how to encourage in this way thoughtful innovation. The latter is important for universities who want to strengthen their innovative power from within, as needed in a world with fast changing professions and domains.

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Appendix. Questionnaire

Project: Transfer of honors education to regular education

Original language of the questionnaire: Dutch.

Description of innovation of regular education and personal details

Institution:

Education: What does the education component in the regular program look like in which experiences with honors education played a role? (if necessary, explain with reports, evaluations, website, study manuals, etc.)

Lecturer:

Interviewer(s):

Date:

Interview questions

(1) What elements of honors education inspired this educational innovation in the regular program?

Educational design:

- More open issues?
- More complex issues?
- Issues from the professional domain aimed at?
- More teamwork?
- Community formation?
- Formation of contact network?
- More peer feedback?
- More multidisciplinary collaboration (within domain, between institutes)?
- Other forms of education with more freedom for the student?

Goals and content:

- Other objectives?
- New subject content?
- More attention to certain skills (e.g. communication, presentation, cooperation) and attitudes?

Judgement:

- Other forms of assessment?
- Higher/other requirements?

Admission:

- Regulated admission?

Otherwise?

(2) What was motivating for you about this innovation?

(3) How did the process of innovation in regular education develop?

- Was there a concrete reason to think about educational innovation?
- Was there a problem that this innovation should solve? For example, urgency from the profession or society, from study success or success rates?
- Who took the initiative for the innovation of the regular curriculum? And what was the motive of the initiator?
- Did the innovation process involve 'renewing everything at once' or 'gradually changing'?
- To what extent was the innovation supported by an entire team?
- What role did the management/board of the institution play in this educational reform?
- To what extent and form was there support for the innovation? (Also from authorities in the relevant education such as the Executive Board, management, education management, professional field?)
- To what extent were resources available for the innovation (such as hours for development by teachers, training time, expertise from outside the institution, time to ask elsewhere for information about the innovations)?
- To what extent was there consensus among the teachers involved about the innovation? What led to that consensus?
- To what extent were there counterforces against the innovation?
- What was demotivating for the initiators?

(4) What was the scale of the change in mainstream education?

- Was it a simple change in education or a complex change?
- Was it an innovation at module-semester or curriculum level?

- Was the innovation part of a larger project?
- How many teachers were involved in the innovation?
- Were teachers involved who taught both the honors program and the regular program? And was that important for the innovation?
- Can there be phases observed in the process of educational innovation? If yes which one?
- Was there a trial phase for the innovation?
- Was there an evaluation phase?
- To what extent did the teachers involved have to get used to the innovation?
- To what extent did the students have to be prepared for the innovation?

(5) Personal assessment of the stimulating effect of honors education for innovation in regular education in your situation:

In your opinion, to what extent did the approach in honors education stimulate innovation in regular education? Circle the most suitable alternative.				
1	2	3	4	5
Not stimulating but discouraging	Stimulating effect: disappointing	Stimulating effect: somewhat	stimulating effect: moderately	Stimulating effect: very much

Explanation:

(6) Has the innovation in the regular program somehow brought something extra to the students?

- Different learning process for students? (For example, more challenging, more self-directed learning process)
- Other results for students?
- Different attitude of students?
- Different approach by teachers to education?
- Other collaboration between the teachers?
- Has a different view of education and students emerged among lecturers?
- Is there appreciation or interest in the changes from others outside the school?
- Do teachers run into other things?
- Do students run into other things?

(7) How sustainable is the innovation?

- Is it a one-time renewal or is there a permanent acceptance of the renewal?
- Is there support for making the innovation more sustainable?
- Are there any plans for a sequel?
- What would you have done differently with the 'knowledge of today'?

(8) Do you have any advice for teachers or institutions with regard to the impact of the approach to honors education when reforming regular education?

(9) What is your own assessment of the success of reforming regular education, under the influence of honors education, in your situation.

What is your impression of the success of this innovation?				
1	2	3	4	5
Renewal has gone wrong	Renewal has been disappointing	Somewhat successful	Fairly successful	Turned out to be very successful

Explanation:

(10) How do you characterize yourself in the process of reforming mainstream education?

a	B	c	d	e
Inventor of an educational innovation	Forerunner in realizing an educational innovation	Someone who, after the first try-out(s) of an educational innovation, will participate with colleagues	Someone who participates in educational innovation when the majority of colleagues did agree	Someone who is not inclined, or only very late, to participate in educational innovation activities

Explanation:.....

The report of the interview will be submitted to the interviewee for approval.