Closing the Gap: Goal-setting Programme at the Rotterdam University of Applied Sciences
Introduction

It was a cool February morning in 2020 when Izaak Dekker entered the Museumpark high-rise complex of the Rotterdam University of Applied Sciences. On his way to the elevator, he greeted his students and stopped to have a chat with two of them who were finishing their first year of the Learning and Innovation Master programme. They were already teachers who were studying part-time, and this year they were busy researching ways to raise the quality of education in their respective schools. They told Dekker how excited they were at the prospect of translating their findings into actual change within their organisations — an excitement that Dekker himself was very familiar with.

A few years ago, he had crossed paths with Dr Michaela Schippers, Professor in Behaviour and Performance Management at Rotterdam School of Management (RSM), Erasmus University, and he was impressed by the goal-setting programme that she and her colleagues had conceived and tested to address the disparities in academic performance at RSM. Through simple writing exercises, students were able to focus better on their studies and become more confident and self-directed, leading to improved overall academic performance and higher student retention rates for the school — no small feat, considering that the drop-out rate for first-year Bachelor students in Dutch universities hovered around 50%. Launched at RSM in the 2011-2012 academic year, the goal-setting intervention programme had led to steady improvement in academic performance over the past six years and was now part of the General Business Skills course for RSM’s first-year BSc Business Administration students.

The success of the intervention programme inspired Izaak to implement it at his own school. Earlier in this academic year, he had already designed and carried out a similar programme aimed at increasing academic performance and equal opportunities among first-year students. Dekker was convinced that RSM’s programme could also be valuable for students at the Rotterdam University of Applied Sciences, especially male students of non-Western ethnic background who had been struggling to finish their studies.

This case was prepared by Kassiani Nikolopoulou and Michelle van Koert under the supervision of Professor Michaela Schippers at the Rotterdam School of Management (RSM), Erasmus University. We would like to thank Izaak Dekker from the Rotterdam University of Applied Sciences and Tao Yue from the RSM Case Development Centre for their time and input. We would also like to thank the Erasmus Centre for Study and Career Success for information and support.

This case is part of the RSM Sustainable Development Goals (SDGs) case series. It is based on field research and is written to provide material for class discussion rather than to illustrate either effective or ineffective handling of a management situation.

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Like his mother, who used to teach newly arrived immigrants in the Netherlands, he placed great value in the power of education to allow everyone to join and have a role in society. A philosophy graduate, Dekker’s passion lay in education and the topic of study success. This led him to do a PhD in that focus area with Dr Schippers and to put his research in teaching into practice.

After taking the elevator to the 5th floor, Dekker found a spot at the open workspace. Most of his colleagues were there working in silence. They were now half-way through the academic year, and the teachers were busy with grading, administration and numerous meetings regarding the planning for the next term. Dekker knew that reaching out to colleagues who had their own agendas and getting them to already start thinking about next year would not be an easy task.

**University of Applied Sciences**

In the Dutch system of higher education, a distinction is made between universities (universiteiten) and vocational universities or universities of applied sciences (hogescholen or hoger beroepsonderwijs, HBOs). A university of applied sciences offers profession-oriented study programmes. Students at these institutions learn how to apply their theoretical knowledge in practice. Work placements and internships in (inter)national companies often form an integral part of their degree programmes. Thematic fields include, among others, economics, engineering, agro and food, healthcare, art, social studies and teacher training.

Universities of applied sciences offer Bachelor and Master’s degree programmes. Though they do not offer doctorates, they have the right to conduct official research. The research usually focuses on societal impact, is demand-driven and is conducted in cooperation with various stakeholders, such as businesses and the public sector\(^1\).

The largest universities of applied sciences enroll 20,000 to 40,000 students. Altogether 456,633 students were enrolled in professional programmes in the Netherlands in 2018. The same year there were 36 universities of applied sciences supported by state funding and thus allowed to offer officially recognised degrees\(^2\).

**The Emancipatory Role**

Dutch universities of applied sciences have always served as a gateway to higher education for the lower socio-economic groups. The history of these institutes mirrors the socio-economic developments of the country and the emancipation of certain groups: relatively lower socio-economic classes, women and people of minority ethnicity. Each university of applied sciences has formed its curricula according to the specific socio-economic environment in which it is located.
Therefore, it is no surprise that technical vocational education originated in the period 1850 – 1900, a time when the Netherlands was transforming into a modern, technology-driven country; nor that social work vocational education originated around 1900, when human rights and welfare entered the public agenda and the first such laws were laid down. Due to practical curricula that were designed in response to demand for certain professions, universities of applied sciences appealed to groups that previously had had no access to higher education.

In the ’70s higher vocational education spearheaded the ‘massification’ of tertiary education. More and more women enrolled in study programmes and gradually, since the late ’90s, have come to outnumber their male colleagues.

Since their beginnings, universities of applied sciences have facilitated the social mobility of people from lower socio-economic backgrounds. But in 2019, their function as ‘emancipation machinery’, as Ron Borsmans, President of the Rotterdam University of Applied Sciences, called them3, came into question. The disparity in success rates between different groups of students was worrisome4. The ‘laggards’ now manifested themselves as being from a certain socio-economic position and with a certain ethnicity: predominantly males of Moroccan or Turkish ethnic background (two of the largest immigrant groups in the Netherlands).

Offering more people access to higher education is one thing, and universities of applied sciences were doing well in that, but making sure that students graduate with a degree is very different challenge. The academic success of the abovementioned group was declining nationwide. The large universities of applied sciences in the Randstad all scored below the national average of academic performance and followed the downward trend.

On the one hand, one could argue that this was an inevitable side effect, given that universities of applied sciences had raised their academic standards in recent years, making it more difficult in general for students to successfully graduate. On the other hand, this trend seemed to hit hardest in one particular segment of the student population; students with a non-Western ethnic background and especially those with a secondary vocational education (MBO) – as compared to the more theoretical (academic) levels of secondary school, called HAVO and VWO – were lagging behind. In the 2008 cohort, 55.2% of native Dutch students managed to obtain their degree within five years, while for students from families with a non-Western migration background this ratio was only 34.7% (Exhibit 1).

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3. The Randstad is the name for the ring of cities in the western Netherlands, comprising of Amsterdam, Rotterdam, The Hague, Utrecht and several smaller cities. It is a densely populated area that has an advanced urban economy with many leading sectors, such as logistics, horticulture and financial services.

4. Secondary vocational education (MBO, middelbaar beroepsonderwijs, literally ‘mid-level applied education’).
Exhibit 1. Students who attained a degree within 5 years, per ethnicity

Selection: full-time Bachelor students with the start year 2008
Blue = native Dutch, red = non-Western migratory background

NL total = all universities of applied sciences in the Netherlands
haagse hs. = The Hague University of Applied Sciences
hs. Inholland = Inholland University of Applied Sciences
hs. Rotterdam = Rotterdam University of Applied Sciences
hs. Utrecht = Utrecht University of Applied Sciences
hs. van amsterdam = Amsterdam University of Applied Sciences
Commas are to be read as decimal points


Government Agenda on Equal Opportunities

The Dutch government wanted to ensure that children with the same talents were not hindered in their education by their background, the educational level of parents or their financial situation. For this reason, the Ministry of Education, Culture and Science had been active throughout the Netherlands since October 2016 with the Equal Opportunities Alliance (GKA, Gelijke Kansen Alliantie), and as of 1 October 2018 with the Equal Opportunities Programme. Recognizing the complexity of the issue, the Ministry followed an integrated approach that tried to connect the schools, homes and municipalities of the students.

Improving transitions in education was an important part of the policy for equal opportunities. Transitions, for example from primary to secondary school, did not go equally well for every student. Students with the same knowledge and skills, but with a different background, could still have very different school performances. The importance of smooth transitions was echoed in research by Maurice Crul et al. (2013) which showed that a good transition between secondary and higher vocational
education was a major success factor in the social mobility of the children of migrants. In 2017 the Ministry made almost €5 million in subsidies available for transition programmes. More than 70 secondary vocational schools and universities of higher education received subsidies to test new ways of helping students successfully move from one to the other type of education. In 2018 a further €32 million was made available for universities to strengthen cooperation with secondary schools over the following four years.

Equal opportunities were also an important point of attention in the Ministry’s 2019 annual report. The report recognised that the rising inequality of educational opportunities seemed to be slowly stabilising. Although this appeared to be a positive trend, the challenge remained, as the difference in opportunities between students with equal talents was still considerably larger than ten years earlier.

The Rotterdam University of Applied Sciences

The Rotterdam University of Applied Sciences was a government-funded higher education institute in the Netherlands. In 2019 the school had more than 36,000 students and over 3,500 employees. The 15 locations of the school were all near the city’s main east-west metro line. The Rotterdam University of Applied Sciences was a foundation governed by an executive board presided over by Ron Bormans. There was also an advisory board consisting of five members that supervised the executive board and the general state of affairs of the university. The programmes offered by the university in 2019 were taught at 12 different locations, ranging from business and management to teacher training and engineering. The university offered Bachelor, Master and Associate degree study programmes.

The vision of the Rotterdam University of Applied Sciences was to stand for inclusive, high-quality education. The exact content and application of that vision was in the hands of the lecturer teams. It was up to them to realise and organise education that fit their students, the professions that they were aspiring to, and the identity of the specific study programmes. The overarching goal was to educate students towards becoming professionals who could make valuable contributions to society on a basis of equality. To that end, the university encouraged mutual respect and placed great value in the emancipatory power of education.

According to Ron Borsmans, Chair of the executive board at the Rotterdam University of Applied Sciences, diversity was one of the characteristics of the school and something to be proud of. In 2019, 30% of the students were from a non-Dutch background.

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6 Short cycle higher professional education. The purpose of this level of education is employment and/or further study in a bachelor programme offered by universities of applied sciences. For more information see: https://www.nuffic.nl/en/subjects/education-and-diplomas-the-netherlands/
immigrant background. At the same time, therein lay the challenge, as these students were not as academically successful as other social groups.

Along with socio-economic background, gender also played a role in study success. In 2005 the percentage of non-Western immigrant males who had finished secondary vocational education and who managed to obtain their Bachelor’s diploma within five years was 32.2%. For non-Western females the same percentage was 39.1%, while for Dutch males it was 50.4%.

The numbers were worse in the 2009 cohort for all groups, but especially for non-Western immigrant males: after five years only 16.4% had managed to receive their diploma. Of the non-Western females 26.4% succeeded, and of the Dutch males 44.9%.

**Gap in Academic Success**

From 2015 to 2019, total student intake by universities of applied sciences in the Netherlands grew by 34%. The proportion of students coming from secondary vocational education and with a non-Western ethnic minority background increased even more (> 80% and > 132%, respectively).

At the Rotterdam University of Applied Sciences these developments were even more striking: for the same period, the total intake of students grew by 63%, the number of students coming from secondary vocational education rose by 248%, and students of non-Western ethnic minorities increased by more than 151%. This meant that higher vocational education in general, and the Rotterdam University of Applied Sciences in particular, was becoming accessible to everyone and certainly to socially underprivileged students.

Accessibility, however, did not equal study success. These specific segments of students systematically dropped out due to academic failure. The trend was evident in Rotterdam as well as in the rest of the Randstad. This was causing serious concerns because the traditional function of the university of applied sciences, namely educating people that society needed with the sole entrance criterion being cognitive abilities, was not being fulfilled.

**Reasons for the Gap**

Ron Bormans attributed this difference in academic performance to several phenomena. One was the lack of intrinsic motivation; many students seemed to be...
motivated only by external factors such as parents’ expectations. Two: for many students the choice to study at the Rotterdam University of Applied Sciences was purely one of convenience; it was the largest university of applied sciences in the region.

The socio-economic position of students was also a decisive factor in academic success. More often than not, the zip code of a student’s home address could predict how successful they would be in their studies and later in life. In addition, the parents of students who lived in more deprived areas were less likely to have had a higher education themselves. That meant they did not have a reference for what it was like to be at university.

Without denying the responsibility of the university to motivate students, Ron Bormans believed that the problem of inequality in academic success could not be tackled until students also took responsibility for their own success. He aspired toward a new collective culture in the university and within each programme, in which critical thinking would be valued and the identity of the students would be respected.

Bormans’ expectations for the future could be summarised by his mantra ‘70-90’: 70% of all first-year students should pass all their courses by the end of their first academic year and continue to the second year. From that 70%, 90% should be able to achieve their Bachelor’s degree within four to six years.

**Goal-setting Intervention**

Professor Schippers at Rotterdam School of Management conducted a study in 2014 among students at her school. The research outcome had shown that a comprehensive goal-setting intervention programme implemented early in students’ academic careers could substantially reduce gender and ethnic inequalities in their academic achievement. *Specifically, after Year 1, the gender gap closed by 98%; while the ethnicity gap closed by 38% after Year 1 and by as much as 93% after Year 2. Ethnic minority males earned 44% more credits than they had in the past, and their retention rate increased by 54%.*

Further research also indicated that the cohorts that had participated in the intervention showed a 22% increase in academic performance. Interestingly enough, it did not matter whether the students wrote about academic or non-academic goals. It was the overall process of writing about their personal goals, the specificity of their strategies for goal attainment, and the extent of their participation in the intervention that led to an increase in their academic performance.

Impressed by these findings, Izaak Dekker, then a PhD student in Professor Schippers’ team, wanted to test the goal-setting programme at the Rotterdam University of Applied Sciences as part of his doctoral research. The programme started in
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September 2018 as a controlled trial. First-year students from 11 teacher training courses and two economics courses participated in the research. The results showed that students who were in the experimental group attained 1.1 study credits more in their first semester and 2.5 credits more by the end of their first year than those in the controlled group. These results were independent of the students’ previous education, ethnic background or gender.

The idea behind the intervention was that discovering one’s intrinsic motivation in life is paramount for setting and following up on concrete goals. These goals in turn can give a person direction and purpose despite distractions. In the context of education specifically, a lack of clear goals and motivation are significant causes for under-achievement and drop-out.

The goal-setting programme consisted of three steps. First, students were presented with a set of expressive writing exercises. They were guided by questions such as “What habits would you like to change in yourself” or “What attributes do you admire and would like to have” and were encouraged to answer them freely without thinking about grammar or spelling. Students were also asked to imagine an ideal future and describe what they needed to change in order to get there.

For the Rotterdam University of Applied Sciences students, this was a 1000-word essay which took approximately 45 minutes to finish. For RSM students, this was a 3000-word essay for which they were given three hours to write. Oftentimes students had only vague ideas about what they wanted to achieve in life. The aim of this first step was for the students to discover a purpose – academic or otherwise – by explicitly stating what they expected or what they wanted to become in life.

In step two, which followed a week later, students were asked to formulate different types of goals and build upon what they had written in step one. They were instructed to formulate five to eight concrete goals. Then they were asked questions regarding their goals, such as “Why do you want to achieve this goal?” Guided by these questions, they came up with action points and developed a strategy for how they could achieve these goals.

Finally, step three consisted of a photo shoot in which the students were asked to come up with a personal statement based on the previously set goals. For RSM students, this was obligatory, while for the Rotterdam University of Applied Sciences students it was optional. For those students who opted in, they had their photo taken, and the statement they had formulated, starting with the motto of the school, “I will excel myself by...” (Ik overtref mezelf door...), was superimposed on their picture. These photos were posted on the school’s Facebook page and along school corridors. The idea behind this action was that making a public commitment, in other words sharing your goals on the Internet or with people in your environment, was important for achieving a good end result.
Getting Teachers on Board

As a teacher as well as an innovation in education expert at the school, Izaak Dekker knew that it was not an easy task to implement a new, top-down programme into curricula. Furthermore, the Rotterdam School of Applied Sciences emphasised the teaching role of teachers and their didactic and pedagogical skills, which meant that they could not easily find time and energy to carry out intervention programmes.

Seeking consensus from everyone was of great importance. Dekker undertook various steps to achieve this at different layers in the organisation. Between December 2017 and January 2018, he discussed the financial preconditions with the deans of the participating courses, as they would need to pay a fee to RSM to obtain the license to use the intervention. At that stage, one out of three dropped out, as many teachers did not agree to the intervention. Next, in February and March 2018 Dekker talked with middle management, and in March-April with the teaching coordinators. Then he visited all participating courses to talk to the teachers and discuss how to implement the intervention.

Due to his past experience with failed innovations, he was aware that if those who were going to carry out the intervention – i.e., the teachers – did not agree to it, the programme would not work. In order to get them on board, he first looked into the different courses to find out what they were already doing that was similar to the goal-setting programme and to see where he could add value.

Although the university’s executive board was eager to do something to raise student retention rates and many lecturers agreed with the board, Dekker mainly addressed them as fellow teachers. He emphasised how he was always looking for evidence-based interventions that were easy to apply, and that he had finally found one that did not cost a lot of time for teachers while students only needed to spend six to seven hours on it.

Despite the fact that teachers were eager to help students succeed, they were averse to top-down approaches. The overall culture at the Rotterdam School of Applied Sciences was less hierarchical than in many other large organisations. This was evident in the classroom and in the interactions between teachers and students. Evidence-based interventions, including this goal-setting programme, however, are top-down by design. Although there was room for autonomy (teachers could opt in or out), Dekker and his fellow teachers could not change the programme much or it would no longer be the same programme, and moreover might not be scientifically sound.

Dekker tried to ameliorate this situation by first carefully listening to the teachers’ existing solutions and acknowledging that he was not there to ‘re-invent the wheel’. He found out that similar programmes had been previously carried out in the form of study coaching. In most cases, teachers did their own thing individually, and often
they used goal-setting in terms of formulating SMART goals. However, those goals were not aimed at equal opportunities, and teachers did not have the time to test or reflect on their approach. The appeal of supporting underachieving students, the ease of application and the evidence behind it, but also the philosophical approach of thinking about purpose, finally got the teachers on board, and the intervention started in September 2018.

**Getting Students on Board**

Due to the setup of the intervention as a randomised controlled trial, students were allocated to either a controlled or an experimental group. However, to eliminate bias, Dekker could not be transparent towards students about what the goal-setting programme entailed nor inform them about which group they would be assigned to. While withholding crucial information from them, Dekker had to ensure that students would fill in surveys so that he could establish if there were any changes in their behaviour. The first two surveys, which took place online, had a response rate of 90% and 50%, respectively. For the third and final survey he came up with a different approach. He went to every class in person and carried out the survey on paper. Then he debriefed the students about the experiment and gave them the choice to opt out. In the end, knowing why they were doing it, students were happy with the goal-setting intervention, as they could see it was beneficial to themselves.

**Implementation**

Another pressing question Dekker had to answer was who would be most suitable to guide the further implementation of the intervention: temporary project managers or the existing educational advisors of the study programmes? Both choices had their own advantages and disadvantages.

Assigning temporary project managers seemed an obvious choice for an innovative programme like the goal-setting intervention, which required strong project management skills. Moreover, these people could act as liaisons between different faculties and communicate their wishes or demands towards RSM throughout the implementation phase. On the other hand, it would take some time before people trusted the temporary project managers and thus committed to the success of the intervention. And even when this happened, at the management team level, project managers would remain outsiders with no direct influence.

The fact that all study programmes had an educational advisor who knew the curriculum well and who was already part of the everyday managerial discussions and processes was a strong argument in favour of placing them in charge of the intervention. Educational advisors would remain involved after the set-up of the intervention had been completed, and this could give the project a more long-term character.
In spite of these benefits, educational advisors had many other responsibilities on their plate, and it was not certain that they had the required project management skills to see this intervention through. Another potential difficulty had to do with the top-down nature of the goal-setting programme: educational advisors were accustomed to working on tasks that came to them directly from their specific courses or study programmes in a bottom-up approach, whereas with the intervention this was not the case at all.

Conclusion

Although Ron Bormans and the executive board knew that the world is complex and there might not be just one solution to the inequality problem, the goal-setting programme appeared to be a promising method to help decrease inequalities and improve the academic results of all students. The senior management was willing to support Dekker in implementing the programme. Now the dilemma for Dekker became very clear: How could he bring together modern management, which implied a flat hierarchy and co-creation, with an evidence-based intervention that was necessarily top-down? How could he further implement the goal-setting programme in the Rotterdam University of Applied Sciences? And who was best suited to guide the programmes throughout the implementation phase: the existing educational advisors or the newly appointed project managers?
Appendix A. The Dutch education system

Appendix B. The ECTS system and Binding Study Advice

Dutch higher education institutions use the European Credit Transfer and Accumulation System (ECTS) for study points or `ECTS credits':

- 1 credit = 28 hours of study
- 60 credits = 1 year of study
- 1 academic year = 42 weeks

Binding recommendation (BSA)
Students receive a binding recommendation regarding the continuation of their studies (bindend studieadvies, BSA) at the end of their first year of study. This means that students must achieve a certain minimum of ECTS credits during their first year in order to be allowed to proceed to the second year. Most universities of applied sciences require a minimum of 30 or 45 ECTS credits. A small number of programmes require a minimum of 60 ECTS credits. If a student fails to meet this requirement, in most cases his or her enrolment is automatically terminated. These students are then generally barred from enrolling in the same study programme for several years. Students are issued a first-year certificate when they have obtained 60 ECTS credits.

Appendix C. Attainment of diploma within 5 years of studying (nominal study duration + one year)

Totaal NL = all universities of applied sciences in the Netherlands
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Appendix D. Drop-out numbers during the first year controlled group (darker blue) vs. experimental group (lighter blue), after half a year (1) and at the end of the year (2)

Appendix E. Study points after half a year (T1) and at the end of the year (T2)

Man=1 Mbo=1 and Nwm =1 stands for man with a secondary vocational education and non-Western migration background.

Appendix F. Examples of student photo shoots and personal statements

“I will excel myself by obtaining my first-year certificate in one year”.

“I will excel myself by continuing to think creatively”.

Massoud Kohdamani
Lerarenopleiding Wiskunde

Jet Groeneveld
Lerarenopleiding Basisonderwijs
Endnotes

4 Ibid.