

Student Analytics

A Deloitte proposition to
reduce student drop-outs



Our proposition

Student Analytics enables universities to help students achieve higher student success

Situation

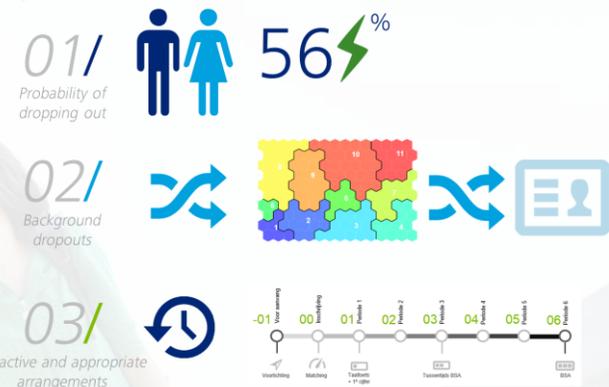
Higher Education has a wicked problem. On average, one in three students drops out, and so far no single measure has proven successful. Universities have spend decades optimizing one-size-fits all solutions to deal with ever growing enrollments and need to transform. Students demand a more tailor-made, personalized approach, but universities often lack the funds for true customer intimacy.

Solution

Insights and predictions from student data can be used to transform student services to become proactive and personalized, without the costs associated with one-on-one tutoring. This will enable recruiters, counselors, tutors and teachers to focus their limited time effectively on those students who require attention, and thereby help students achieve higher study success.

A proven approach

Our method designs in three clear steps who to target, based on their profile, and intervene accordingly.

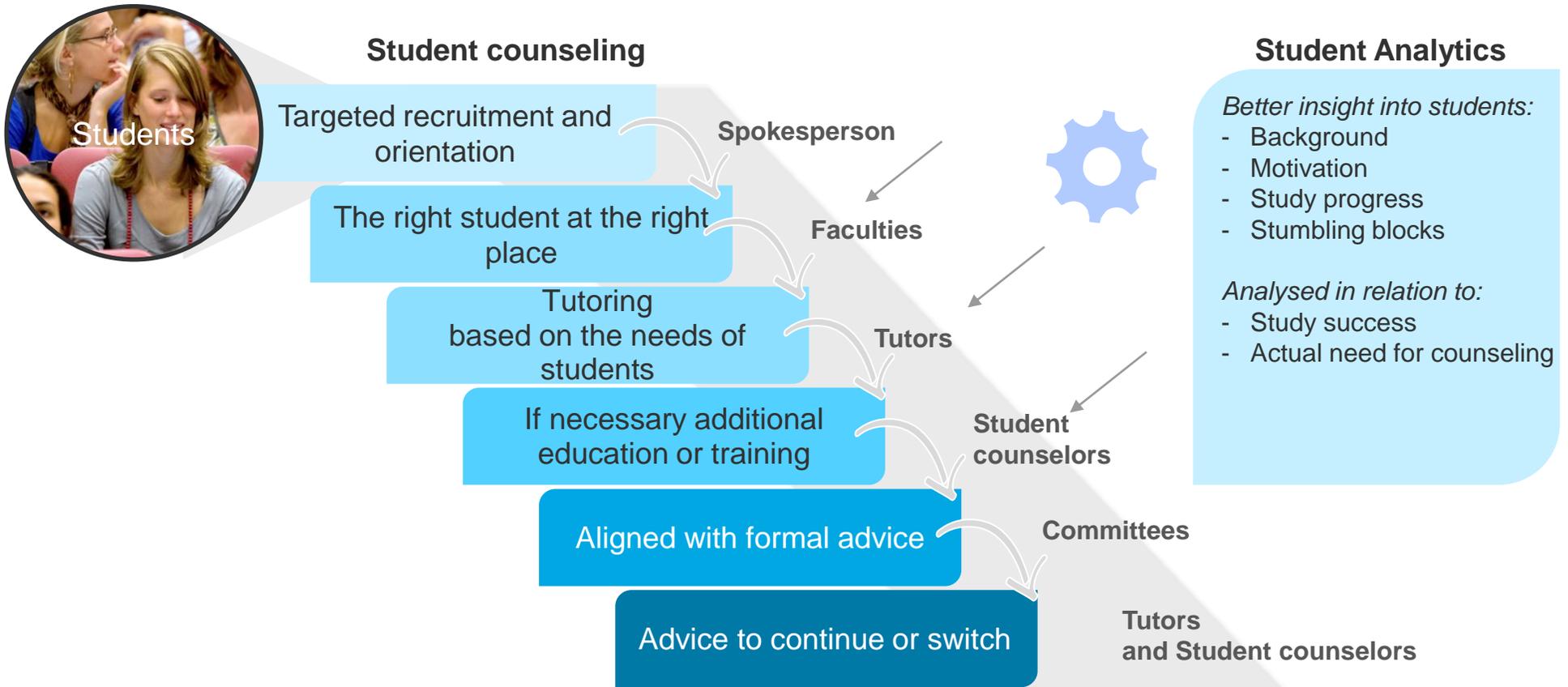


Benefits

- Personal tutoring, mentoring and advice for all students
- Lower the risk of students dropping out
- Stay ahead of the competition

Vision Student Analytics

By improving insights in the individual needs of students, Deloitte facilitates personal and proactive student counseling



Win-Win Better insights lead to increased effectiveness and efficiency

Vision Student Analytics

Probabilities for future study success can logically be assessed with students' profiles and behavior

Eric's profile



- Eric went to the orientation day and registered early for his Economics study
- A year before, Eric was studying Law at a different university
- Eric does not pass the well-known stumbling block: statistics
- Eric has less EC than his cohort

Eric's Study success

Drop out probability



56%

Diploma in 4 yrs probability



20%

Jennifer's profile



- Jennifer is 18 years old and came directly from high school to study English
- Especially for English and Mathematics she had exceptional marks
- During the first half year, Jennifer gains all the EC possible

Jennifer's study success

Drop out probability



5%

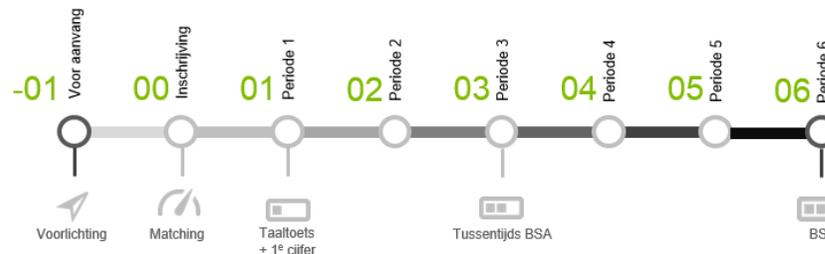
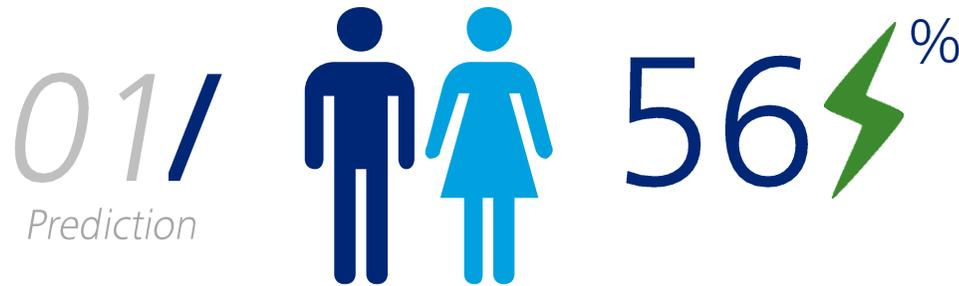
Diploma in 4 yrs probability



93%

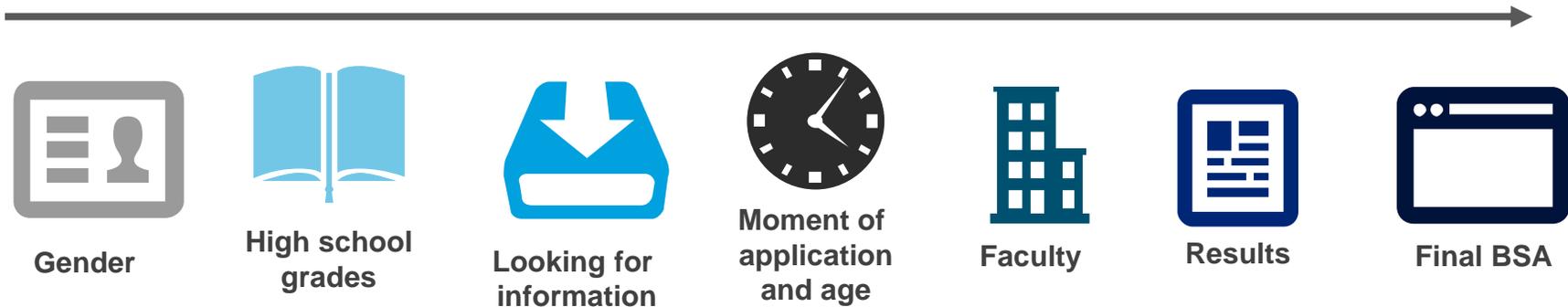
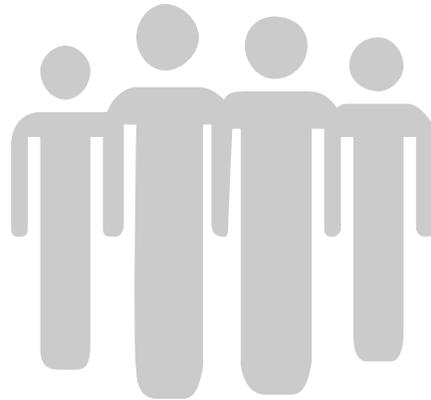
Approach Student Analytics

Our method designs in three clear steps 1) who to target, 2) based on their profile, and 3) intervene accordingly



Prediction

Our model estimates the drop out probability at 7 moments in the first year based on a logical and balanced choice of variables

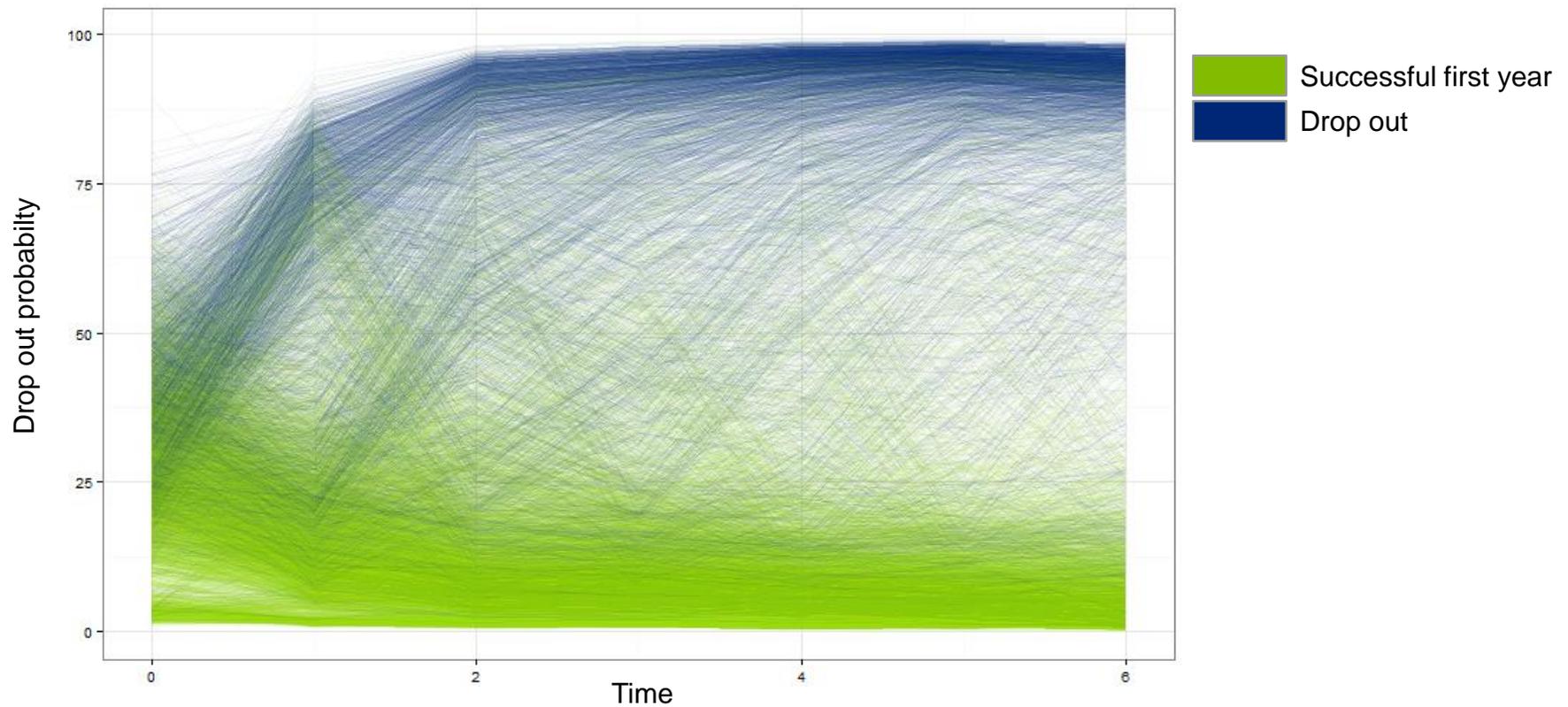


Formula of the prediction: Dropout ~ Gender + Avg high school grades + Looking for information before + Looking for information after + s(Age) + s(Days between application and admission) + Faculty + s(EC | period) + s(EC – Avg. EC cohort) + Amount of retakes+ Final BSA

Prediction

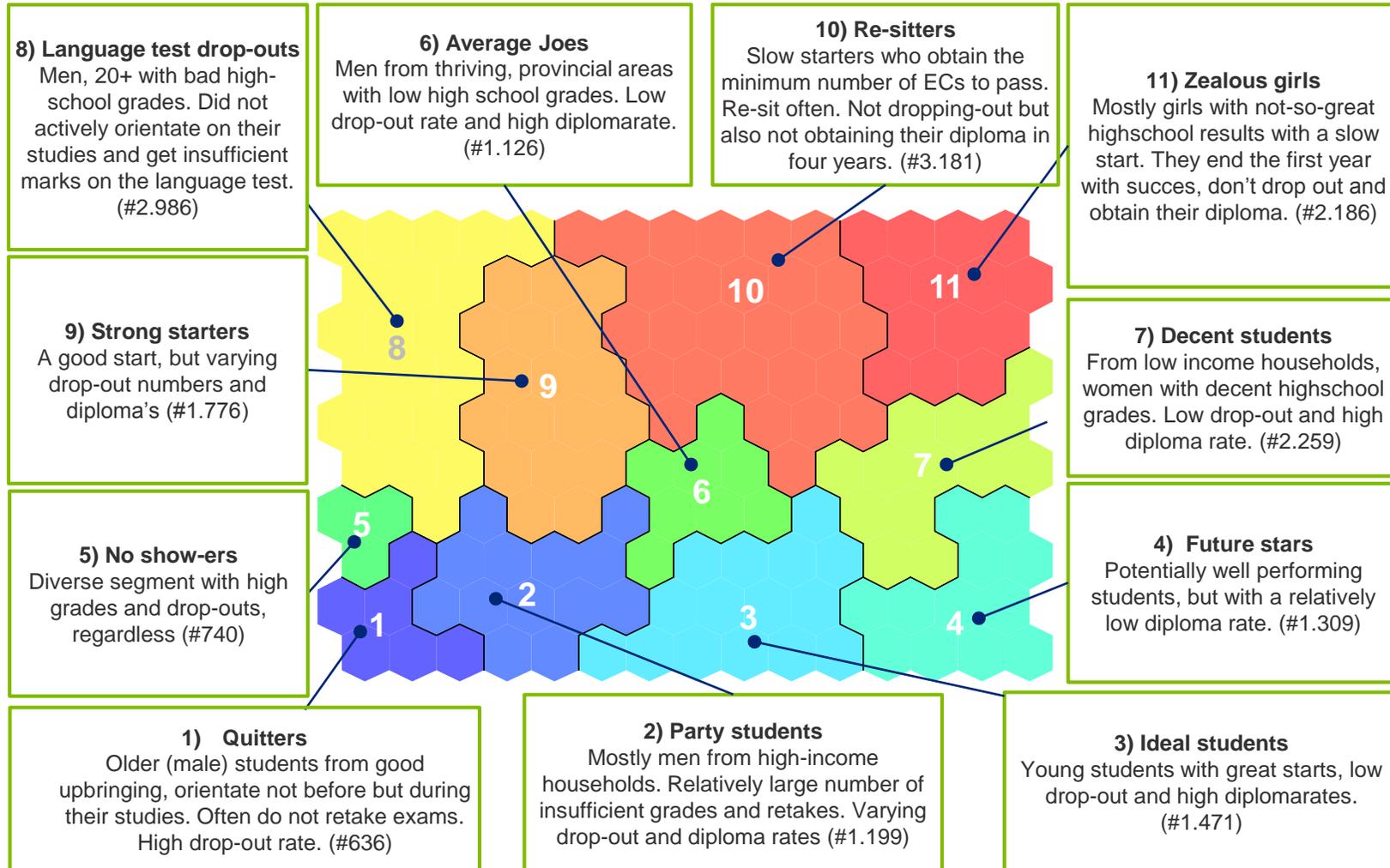
Throughout the year, the most accurate up-to-date drop out probability is available for each student

Drop out probability per student



Background

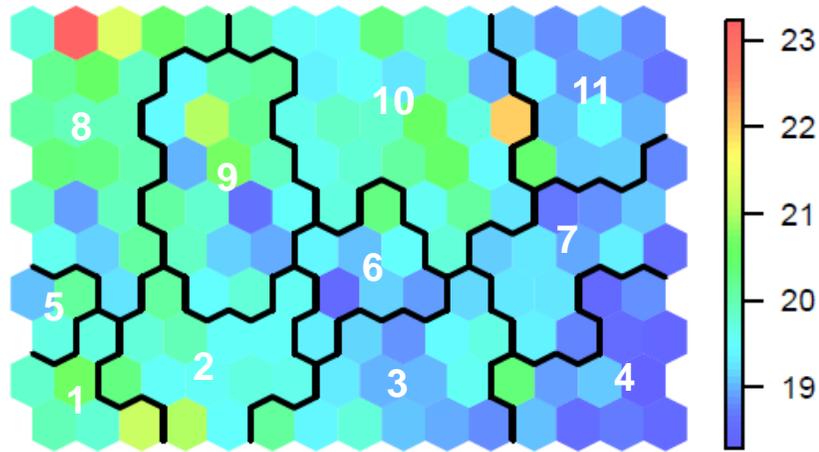
Based on student behavior in the first year over 18.000 students are segmented into 11 groups using an advanced visual segmentation technique



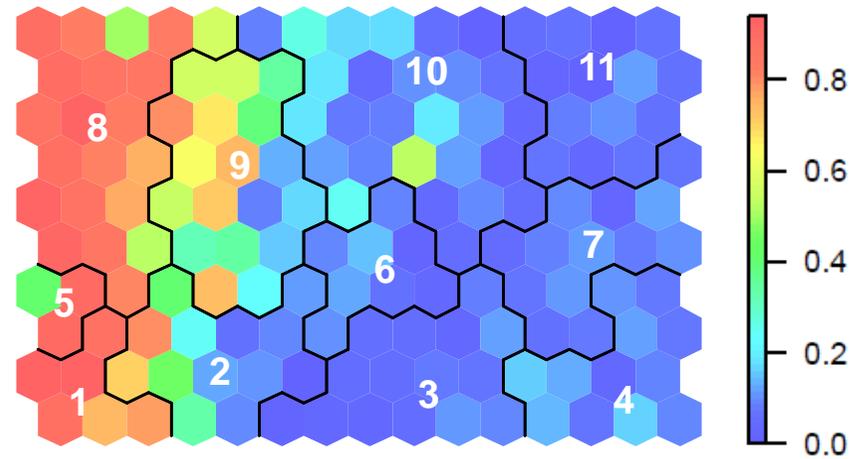
Background

All available variables can be explored for correlative relationships

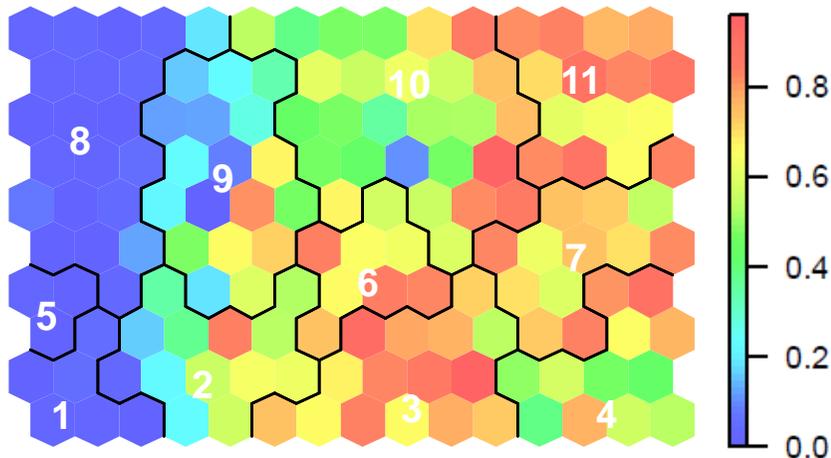
Age at start of study



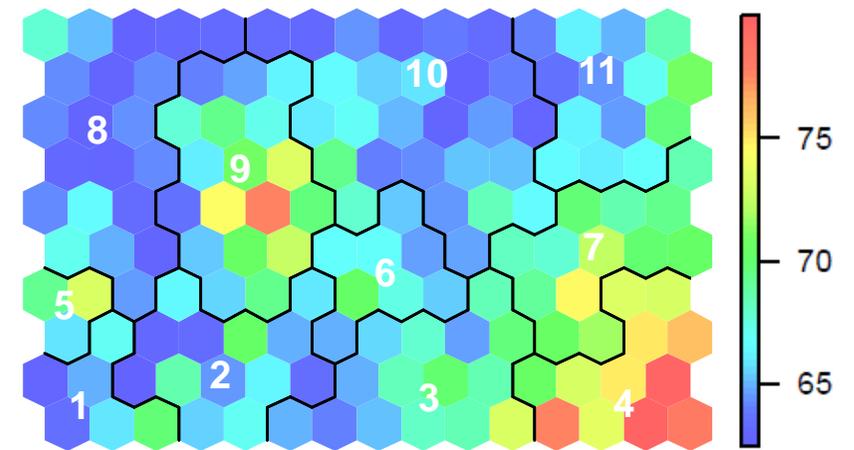
Drop-out after one year



Bachelordiploma in 4 years

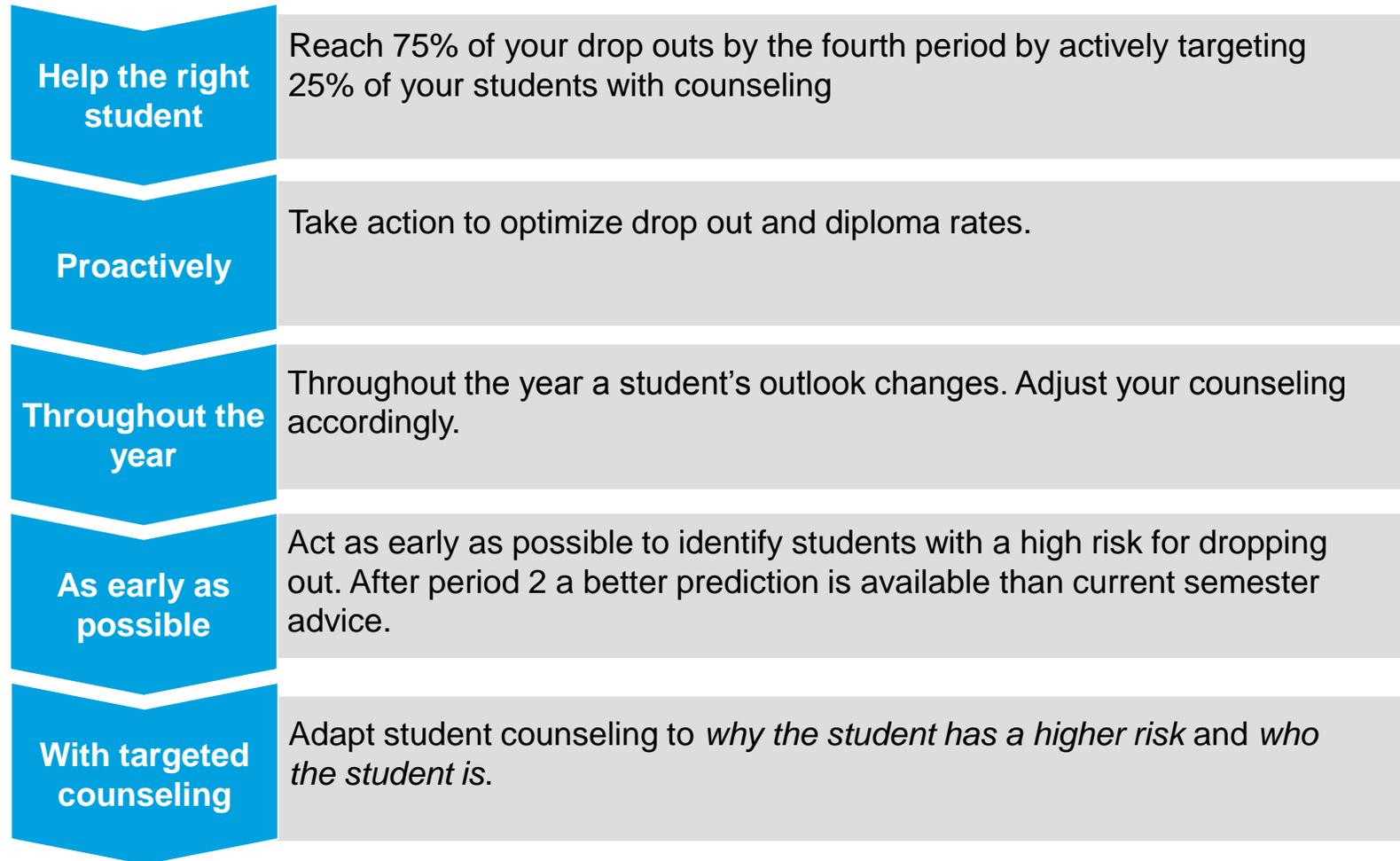


Average highschool grades



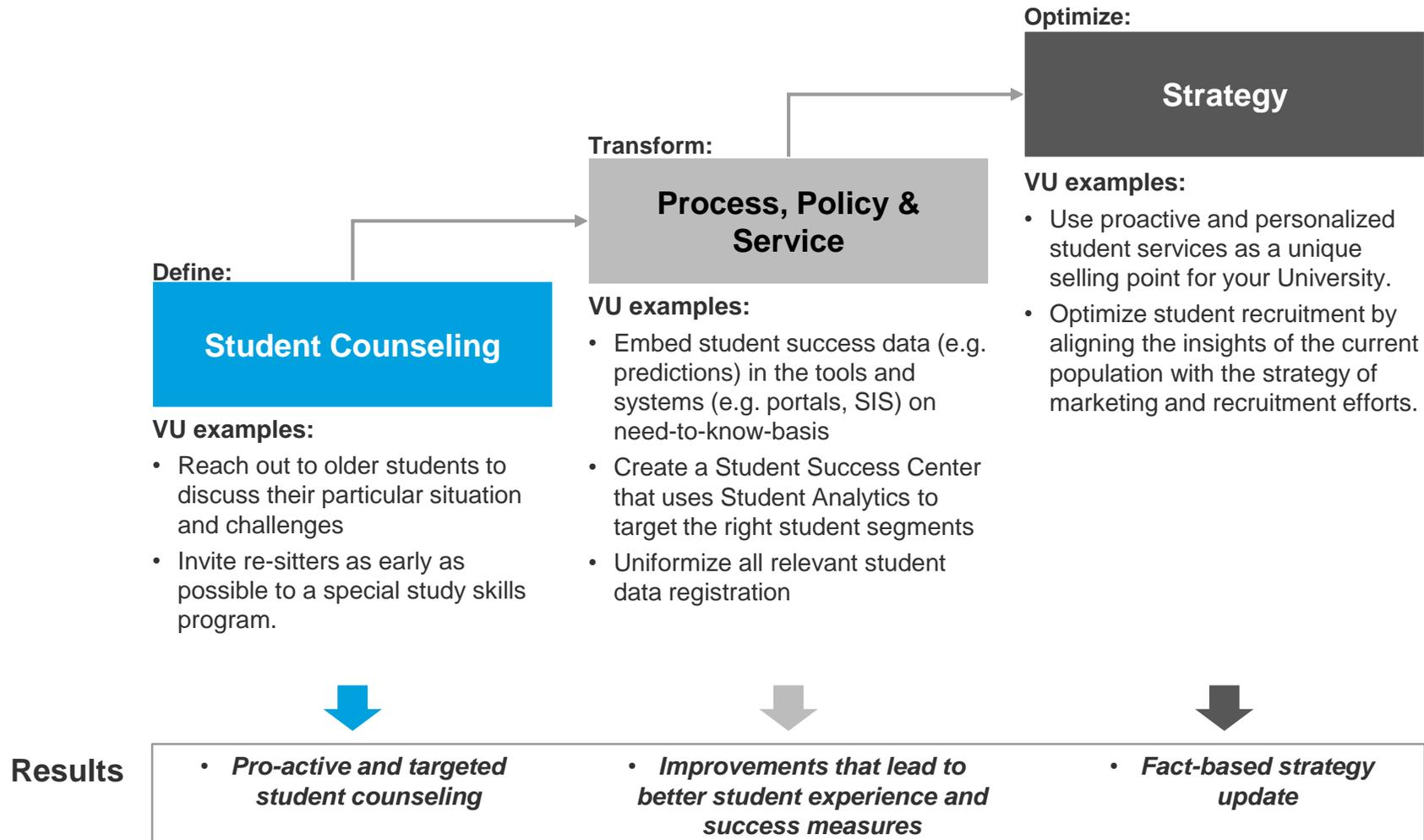
Interventions

Help the right student proactively, throughout the year and as early as possible with targeted counseling



Interventions

Together with the client we define interventions for particular student segments and give advice on processes, policy, service & strategy of the institute



The benefits

The benefits for students and insights into their behavior translate into an opportunity for the (vocational) university



Students

- **Tailored recruitment, mentoring, tutoring and study advice**
- **High transparency** of information
- **Find the right program**
- **Less risk of dropping-out**
- **Greater success**



University

- **Higher student retention and graduation rates** (also leading to financial gain through funding and operational efficiency)
- **Lower costs** to give better advice and more targeted services
- **Optimized processes, policies and service** based on insights in student behavior
- **Target** the right students and optimize strategy
- **A necessary change** - over the next couple of years, data driven will become the norm

Contact details

Contact us for more information

Education Lead



Harm Erbé

Education lead
Deloitte Consulting NL

herbe@deloitte.nl

+316 8201 9411

Analytics Lead



Mark Boersma

Analytics lead
Deloitte Consulting NL

mboersma@deloitte.nl

+316 8333 9811



Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee (“DTTL”), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as “Deloitte Global”) does not provide services to clients. Please see www.deloitte.nl/about for a more detailed description of DTTL and its member firms.

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries and territories, Deloitte brings world-class capabilities and high-quality service to clients, delivering the insights they need to address their most complex business challenges. Deloitte’s more than 200,000 professionals are committed to becoming the standard of excellence.

This communication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively, the “Deloitte network”) is, by means of this communication, rendering professional advice or services. No entity in the Deloitte network shall be responsible for any loss whatsoever sustained by any person who relies on this communication.