

About the project

Administrative details

About the project	
Title	Student ownership at UCU; redesign of a personalized curriculum
Theme	Personalised Learning
Faculty / institute	University College Utrecht
Department / programme (context of the project)	University College Utrecht, Liberal Arts and Sciences; project concerns the whole curriculum, therefore no academic discipline from the list can be filled out.
Academic discipline	Select an item
Duration of the project	16-4-2018 until 31-8-2020 (min 24 months, max 30. Start date not before 16 April 2018, end date not after 31 October 2020)
Requested budget (min. €95.000, max. €100.000)	99264
Summary (max 250 words)	<p>At University College Utrecht (UCU), we aim for students to academically and personally develop by setting their own goals, reviewing them periodically and remaining highly motivated to reach these goals.</p> <p>With this project, UCU intends to innovate the current program, always focused on personal learning, that dates from its beginnings in 1998. We aim for an IT-enhanced future-proof personalized learning system that includes a revamped tutor system in which each student becomes more conscious of her learning by making her a full owner of her curricular choices and, with that, her future possibilities.</p> <p>Key to the innovation is facilitating student ownership of curricular choices by letting students develop personal goals. These goals will lead the students in their curriculum choices by linking these personal goals to the curriculum learning goals, taking into account the program end terms and other program requirements. The students will be guided setting their personal goals, by a tutorial and by the tutors. Students will reflect periodically on their goals by using digital storytelling as a reflective tool.</p> <p>We believe this project is unique in bringing different educational innovation initiatives and small scaled intensive education together and creating an optimal field for innovative student-led personalized learning.</p>

Project proposal

Please describe your project under the headings *formulation of the problem, innovation and objected results* and *project plan*. The complete project proposal cannot exceed **2500** words plus **1/2 A4** references.

Word count complete project proposal: 2499

Formulation of the problem

UCU is the oldest University College in the Netherlands, founded in 1998. UCU offers traditional Liberal Arts and Sciences bachelor education in a small-scale intensive residential environment. Twenty years ago, UCU was a pioneer in this personalized approach of teaching and learning. A program was developed where students have ample choice during their broad and in-depth bachelor program, combining Science, Social Sciences and Humanities. No two students at UCU follow the same curriculum. This flexibility and freedom of students connect to the more recent UCU vision statement, which explicitly states the aim to teach students to be creative people and critical

thinkers, being able to make connections and handle complex situations and therefore to adapt to any situation.

In recent years personalized education has become a topic of educational research and much more is known about the possibilities and consequences of personalized learning and individual learning paths. Student motivation is one of the key elements in academic success.^{2,3,15} In Liberal Arts and Sciences education, students' intrinsic motivation is even more essential, since creating your own program is part of the experience. Autonomy is key, therefore, the best way to keep students intrinsically motivated is by creating student ownership over their academic program and progress.^{13,15} UCU's structures have always attended to this, but we now realize that more needs to be done to accommodate student ownership. A student portfolio has been implemented, but we realize a more constructive integration with the curriculum and implementation of student reflection is indicated as we strive for autonomy and student ownership.

A tutor system is in place to guide the students during their program. Every student has one dedicated tutor for the whole program, who serves as their first contact for academic questions. Tutor and tutee meet at least twice every semester to discuss progress and choices for the upcoming semester. Over the years, the program has grown and became more complex, not only for students but for tutors as well. Next to their guiding and coaching role, our tutors are currently used as information resource for the students. As we see in other fields (e.g. healthcare and primary education), bureaucracy has increased and has become a burden for reaching the primary aim, which in our case is the student-centeredness of our education. Current practice, where tutors are the main source of information for students, has two major disadvantages: 1) this academic staff invests a lot of time in creating an overview of the complex teaching system of UCU, which is time-consuming, expensive, not very motivating for the tutors; 2) as bearers of the inside information, tutors (un)consciously filter the information they give to students, taking over partial ownership of the student decisions.

Furthermore, IT developments in education have provided us with opportunities to implement these complex programs more effectively.⁹ With the proposed project, we aim to digitalize the storage of the information, and we intend to put the students at the steering wheel, enabling heightened student ownership. The tutors will keep their essential role as guiders and coaches. An interpersonal relation between tutor and student is essential for a successful tutor system, which is necessary for personalized learning.⁸

In order for students to be able to get the best out of their learning, each will be explicitly asked to set personal goals before each curriculum decisions. Setting personal goals is a way for students to create ownership of their learning, leading to personal development and academic growth.^{1,11,12} These goals will be the starting point for curriculum decision-making.

Student reflection is essential for student wellbeing as well as for learning.^{5,10} Therefore, self-reflection is an essential element in the personal goalsetting and personal development envisaged here. However, self-reflection as separate exercise next to the curriculum, as is now practiced at UCU, is often deemed just another hoop through which to jump, especially in a high pressure learning environment as our selective UCU program. In a 15-week semester, students acquire 30EC with the student portfolio and reflection sessions with the tutor on top of that. Therefore, we intend to make self-reflection part of the personal learning trajectory, giving students freedom in the form to express their personal narrative by introducing digital storytelling as reflection tool.^{6,12}

This project will enable us to integrate the UCU experience with current knowledge from research and available IT possibilities, and therefore to create a learning experience for students that fosters their intellectual curiosity and their focused and exploratory behavior. It will help them create their own learning trajectories, which strives to makes sense of (sometimes unorthodox) choices taken and lessons learnt, leading to a graduate who is consciously equipped with knowledge and skills that are necessary for life beyond graduation.

Innovation and objected results

This project integrates the UU IT experience with knowledge from recent literature on personalized learning and the experience with UCU's existing personalized curriculum to innovate its curriculum. We aim for a future-proof personalized learning system, with an optimally supportive tutor system, where students become more conscious of their learning by making each of them full owner of their program choices. The project involves a planned redesign of the whole UCU curriculum.

Student ownership and digital storytelling

Student ownership can be reached when decision-making is up to the students themselves. We will use personal goal setting, and relate this to the learning goals in the curriculum. To optimally incorporate personal goals in the curriculum decisions and create student ownership, students need to constantly reflect and seek feedback on the personal goals, but also in a broader sense, in order to adjust the goals, based on the experiences during their journey. Digital storytelling is upcoming in higher education, as a tool to both create a narrative and critically reflect on the process.^{4,6,7,12} By using digital storytelling, we actively involve the students in their goal-setting, leading to intrinsically motivated students who do not see the self-reflection as perfunctory hoop-jumping, but as a natural tool within their own journeys, and at the same time, helping them to use higher thinking skills through the story it conveys about their learning. With this project we will assess whether and how reflection with digital storytelling indeed leads to ownership of the curriculum.

Project plan

Overview of the project plan

The project will consist of the following work packages:

WP 1	Adapting existing tool for curriculum choices to UCU and project requirements
Goals	The UU (Faculty of Social Sciences) has developed a web application to visualize learning lines within degree programs and therefore guide students through the curriculum choices. ¹⁴ We will use the framework of this application to include all possible learning goals and program end terms within the UCU curriculum. An option for connection with personal goals (WP2 and WP3) needs to be created
Output	Web application including all curriculum content, connected to learning goals and program restrictions

WP 2	(Re-)design student portfolio with personal goals setting and reflection
Goals	In contrast to curriculum options (WP1), personal goalsetting and reflection are student-owned and therefore part of a student e-portfolio. In WP 2 the current e-portfolio (Blackboard) needs to be evaluated on two criteria: 1) is it able to provide student-owned goal setting and reflection; 2) is there an option for connection with the curriculum web application (WP1 and WP3). If Blackboard is not sufficient another e-portfolio system needs to be chosen. For student reflection digital storytelling will be used. Students can choose their own media and upload them to the e-portfolio. The media used may include the digital filming, stills, audio only, or any of the other forms of digital media which students can use to tell their story.
Output	E-portfolio system with personal goal setting tool and reflection options

WP 3	Connecting output WP1 & WP2 in Next Generation Digital Learning Environment
Goals	<p>The Utrecht University wide program Educate-it is the facilitating body where all knowledge and information on IT enhanced education is bundled. Educate-it is experimenting the concept Generation Digital Learning Environment (NGDLE), aiming to create the best of breed future UU platform. In this project we will pilot in this concept NGDLE. For our aim, NGDLE needs to be able to embed the curriculum web application (WP1) and the online tutorials (WP4). A link needs to be created with the student e-portfolio.</p> <p>Essential is a connection between the personal learning goals (WP2) and the curriculum web application (WP1). This connection will enable the curriculum web application to offer a selection of courses for the student to choose from, based on their personal goals. This may give the students choices which would not occur to them in the current system.</p>
Output	Integrated system in NGDLE

WP 4	Design tutorials on personal goal setting and digital storytelling and integration in education
Goals	<p>Students need to be conversant in the UCU LAS philosophy at the inception of their program and they need to discern their own role in this; we must encourage them to think about setting personal goals in learning and about developing their interests. An online tutorial on personal goalsetting will be developed for the students to follow when they start of UCU. Furthermore, where possible, we will incorporate the use of goal setting in the level 1 courses, the students take during their first year. This will enable group reflections on goal setting, which will enhance the learning process.</p> <p>Another online tutorial will be developed to teach students the background and reasons for using digital storytelling as reflection tool and to instruct the students. For this decision-making, as well as for defining goals and pursuing them, students will be additionally guided by their tutor.</p>
Output	Two online tutorials: Personal goalsetting in a LAS curriculum; Reflection through digital storytelling

WP 5	Implementation in education
Goals	<p>The project involves a planned redesign of the whole UCU curriculum, which will be implemented in phases.</p> <p>A first pilot will be performed with all 1st year students starting in the February 2019 cohort (about 40 students). This pilot will be used to evaluate the workability of the system, as well as student and tutor perceptions.</p> <p>After adjustments, the NGDLE including web application and e-portfolio, can be implemented in the full cohort starting in September 2019. Further implementation will be rolled out in subsequent first year cohorts.</p>

Output	Pilot in cohort February 2019; subsequent implementation per starting first year cohort
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WP 6	Evaluation
Goals	<p>This project will be evaluated. We will separately evaluate every WP on its progress and output. This will be documented in a progress report.</p> <p>Questions on the changes in the curriculum by this project will be added to the standard surveys: course evaluations and tutor evaluations included in the standard quality assessment cycle.</p> <p>A junior researcher will assess the effects of this project with the following main research questions:</p> <ol style="list-style-type: none"> 1. What is the impact of introducing personal student goals at the curricular level on the experienced student ownership and motivation? 2. How successful is digital storytelling as reflection tool at the curricular level? Digital storytelling will also be related to both student ownership and motivation. <p>Main outcome measures are perceived student ownership and motivation. Baseline measurement and follow up measurements will be conducted once each semester for all students with questionnaires. For pilot 1, after midterm in Spring 2019, we will conduct interviews with students, tutors and the Student Life Officer. Depending on the interview results, we will also organize a focus session. This will be repeated in fall 2019 for the second semester and for the new cohort, starting in September 2019.</p>
Output	<p>Progress reports, including information from WPs and surveys</p> <p>Original research articles</p>

WP 7	Dissemination
Goals	To share the project and its results as broadly as possible
Output	See separate chapter 'Disseminatie'

WP 8	Project management
Goals	The project has different work packages which run parallel to each other. Efficient program management is necessary in order for the project to succeed.
Output	Report on progress and results

Planning

Year	2018	2018	2019	2019	2020
Month	Apr-Jul	Aug-Dec	Jan-Jul	Aug-Dec	Jan-Aug
WP1 Curriculum web application					
WP2 Student e-portfolio					
WP3 NGDLE and connecting WP1,2,3					
WP4 develop online tutorials					
WP5 Pilot with full cohort 1 st year students starting February 2019					
WP5 and 6 Evaluate pilot 2 and adjust where necessary					
WP5 Introduce to all first year students					
WP6 Project evaluation baseline assessments					
WP6 Follow up assessment*					
WP6 Analysis and writing*					
WP7 Dissemination					
WP8 Project management					

*These activities will continue after the final date of the project.

Risk-analysis

Occurrence	Risk	Impact	Measure
Non-commitment project team	Low	High	Project has the role to discuss this with project member and provide a solution to occurring problems
Problems with technical possibilities tools	Low	High	We use existing and therefore tested tools, where only adaptations are needed. Some technical adaptations may need to be found
Problems with connection and cooperation between parallel WPs	Low	High	Project management needs to steer the activities in different WPs and create connections where possible and necessary
Pilot shows unexpected results	Inter-mediate	Inter-mediate	After the start of the pilot, there are 6 months to make adaptations before the implementation in next cohort
NGSLE turns out to be unsuitable as digital learning environment for the UU in future	Inter-mediate	Low	Used tools are not dependent on the digital learning environment used, and can therefore also be transferred to another digital platform (i.e. Blackboard)
Costs	Inter-mediate	Low	This project does not cover all material costs (i.e. development online tutorials are excluded). For extra material costs, both UCU and Educate-it have different additional options. Extra needed hours can be

			requested through UU USO projects and for UCU project members internal options are available (e.g. scholarly time for faculty staff)
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Composition of the project team

Name	Affiliation	Expertise	Role in project
Dr. Sabine Uijl	Director of Education UCU	Educational management, education innovation, aimed at IT enhanced education	Project leader
To be determined	Student assistant UCU	Affinity with data handling	Project Assistant
To be determined	Junior researcher UCU	Background in educational sciences	Researcher
Dr. Joris Veenhoven	Education advisor at COLUU, UU	Development of web application	Education advisor
Lennart Herlaar	Redbits.nl	Technical development and technical advice; experience with UU computer technology and IT in education; UU and UCU teacher	Technical advisor and developer
Mark Baldwin	Student Life Officer UCU	Extra-curricular guidance of students, coordinator UCU Future Center	Project advisor
Elzelien van Buuren	Head student and education office UCU	Responsible for all logistics regarding student administration at UCU	Project advisor
Dr. Patricia Post	Head tutor UCU	Years of expertise with and knowledge of the current UCU tutor system	Project advisor
Michiel Ruijgrok	Process coordinator IT UCU	Responsible for all UCU IT	Project advisor
Dr. Mary Bouquet	Assistant professor at UU & UCU	As UCU teacher involved in UU project 'Making Journeys: Building Blocks for Diversity', including digital storytelling.	Project advisor
Dr. Karin Scager	Education advisor at COLUU, UU	Involved in different education innovation projects in UCU for many years	Project advisor
Dr. Jan Haarhuis	Program manager Educate-it UU	Innovation in IT-enhanced education; responsible for development NGDLE	Project advisor
Dr. Mabelle Hernandez	Program manager Educate-it UU	Innovation in IT-enhanced education	Project advisor
Charlotte Levie	Student representative Academic Student Council UCU	Student perspective; experience with curriculum	Project advisor

References

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2. Bandura, A. (1993) Perceived self- efficacy in cognitive development and functioning. *Educational psychologist*, 28: 117-148.
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5. Hounsell D, Entwistle N, et al (2005). Enhancing teaching-learning environments in undergraduate courses. Final Report to the Economic and Social Research Council on TLRP Project L, 139251099.
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11. Morisano D, Hirsh JB, et al (2010). Setting, elaborating, and reflecting on personal goals improves academic performance. *Journal of Applied Psychology*, 95: 255-264.
12. Ribeiro S, Moreira A, Pinto da Silva C (2014). Digital storytelling: emotions in higher education. 11th International Conference on Cognition and Exploratory Learning in Digital Age (CELDA 2014), 180-186.
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15. Williams KC, Williams CC (2011). Five key ingredients for improving student motivation. *Research in Higher Education Journal*, 12: 1-23.

Result for the teaching community

Describe the wider relevance of your project and the way(s) in which the results will be available for and presented to other interested professionals.

See assessment criteria 4 a-b in the Call for proposals.

Please do not exceed 800 words.

Word count *Result for the teaching community*: 551

Wider relevance of the project

With the emergence of broad bachelor programs in the Netherlands, more programs will face the question how to incorporate personalized learning with a tutor system that optimally empowers students to do so. Our model will be available for these programs to learn from and, after adaptation to their own wishes and needs, to incorporate in their own program.

Educate-it is creating a new UU-wide learning platform, NGDLE. Testing NGDLE in this project will be part of that experiment. The success of this project will bring the NGDLE closer for the UU; after full implementation, it may set an example for other universities and higher education institutions.

Looking at the platform from a content perspective, the creation of one digital platform for planning, registering, learning and reflecting, making the program student owned and student-led can serve as a role model for other faculties and programs.

NGDLE will be created in Moodle, which is an open source platform, and therefore free to be applied by others.

The web application to visualize learning lines is also created as open source. It already has been adopted by other universities. The adaptations to be made as part of this project will therefore also be available to other universities and education institutions.

As a spin-off of this project, we will be able to track student choices, which can be a basis for the implementation of learning analytics in future. This may give us ample options for further research, as well as to further optimize the program:

- Insight in student choices can be used as examples for other students on similar paths. Testimonials or parts of the narratives can be shared in order to inform more junior students. Of course, narratives can only be shared by the students themselves.
- Connecting curriculum choices to students choices after UCU, we can provide more information on the future possibilities of UCU students based on curriculum choices. This can concern master choices, but also information on career choices
- In turn, that input is worthy for recruitment; i.e. we could be able to show future students and their parents that a broad bachelor education *not* focused on particular professions actually leads to very successful employment. This is especially of interest for certain groups that are now still underrepresented in our college: i.e. second- and third-generation immigrants in the Netherlands and first generation university applicants.

Digital storytelling as reflection tool is a relatively new concept. Therefore, our experience could be of interest to all teachers in higher education, using reflection as part of their education.

Plan for dissemination

This project will be disseminated through different channels:

- Throughout the course of the project regular updates of the project will be made available for the teaching community through a close connection with the UU Center for Academic Teaching (UU-CAT)
- One of the communication channels of UU-CAT is TAUU, the online Teaching Academy of Utrecht University, where updates will be presented in regular blogs which are publically accessible
- Project progress will be shared and evaluated by the national University College Guidance Network
- Project progress will be presented in at least one (inter)national conferences of Educational innovation / Educational research. Project results will be presented in an international conferences of Educational innovation / Educational research
- Project results will be published in a peer reviewed journal, preferably Research in Higher Education Journal