



CONSENT

briefing note

Meeting	University Council
Meeting date	7 December 2017
Subject	Framework Studievoorschotmiddelen
Corsa number	-
Department	Board of the University
Handling advice	for approval
Summary (maximum of 10 lines)	The attached memo presents a framework for the investment of the money from the additional funds of the ‘Studievoorschotmiddelen’ for 2018. The framework is the result of the conclusions from the meetings of the University Council ‘Studievoorschotmiddelen’ task force and the Board, enriched with the input provided by the faculties on useful ways to spend the money. It also pays attention to a programme structure and timelines for implementation, monitoring, finances and dissemination of knowledge and ‘best practices’.
Financial implications	yes
If yes, coverage:	2,9 million of additional funds of the Studievoorschotmiddelen. See for further information paragraph 6 of the attached memo.
ICT implications	yes
Suggested decision/Advice	To adopt this memo and send it to the COS for information. To propose members for the project and programme groups.
Follow up	<input checked="" type="checkbox"/> University Council: for consent <input checked="" type="checkbox"/> COS : for informational purposes only
Communication	<input checked="" type="checkbox"/> internal

Framework ‘Studievoorschotmiddelen’

Memo

This memo presents a framework for the investment of the money from the additional funds of the ‘Studievoorschotmiddelen’, which has to be spent in 2018. The framework is the result of the conclusions from the meetings of the University Council ‘Studievoorschotmiddelen’ task force and the Board of the University, enriched with the input provided by the faculties on useful ways to spend the money. Furthermore, this memo contains a programme structure and timelines for implementation, elaborates on the way monitoring will take place and it contains a paragraph on finances. Finally, attention is paid to the question how dissemination of knowledge and ‘best practices’ will be realized.

1. Background and context

In the coming years, the University will receive funds from the ‘studievoorschotmiddelen’. These funds should be invested in further improvement and innovation of education within the focus areas indicated by the minister and the university’s strategic goals. The funds for 2018 are higher than expected earlier, resulting in an extra amount of 2,9 million euros to spend. These 2,9 million are unlabeled and have to be spent in 2018. The labelling of the funds for 2019 is yet unknown.

On 31 August 2017 the Board of the University and the University Council agreed that the extra 2,9 million should:

1. be managed at university level;
2. be used as a kickstart for institution-wide educational innovation within well-defined outlines and a long term impact;
3. contribute to the focal points of active learning, personalized education, improving feedback, a strong connection with the labour market, student support and educational infrastructure.

2. Followed procedure

A task force ‘Studievoorschotmiddelen’ has been installed, consisting of representatives from the University Council, OSK, ESI and F&C and chaired by the Rector. The task force’s task was to come up with a proposal for a strategic framework for the investment of the additional 2018 funds that satisfies the above mentioned three conditions, is realizable in 2018 and ideally entails a decrease (or at least a neutral) workload for teaching staff. The task force identified two major themes with related subthemes, that qualified for further consideration and that eventually turned out to be the basis for the framework, i.e.:

1. Active leaning and Interdisciplinary project-based learning;
2. Personalized learning with a focus on Personalized feedback.

In paragraph 3 below these themes will be further explained.

Simultaneously, OSK paid visits to each faculty to discuss the task force’s general ideas on active learning, interdisciplinary project-based learning, personalized learning and personalized feedback and invite them to come up with other ideas that would fit within the strictly defined conditions. Generally, the task force’s ideas were supported by the faculties. In addition, the visits revealed that almost all the faculties strongly wish for more possibilities and more support related to digital assessment. Assessing digitally on a larger scale could be an excellent way of improving personalized feedback.

The ideas of the task force and the faculties have been integrated and formulated in the framework formulated in paragraph 3.

3. Framework for investment ‘Studievoorschotmiddelen’

It is proposed to invest the additional money from the ‘studievoorschotmiddelen’ 2018 in the following ways.

1. Active Learning

1.1. Active learning in general

One of the main goals in UG’s educational strategy concerns ‘active learning’. Active learning is generally defined as an approach to instruction that actively involves students in the learning process. Key elements in active learning are student activity and an interactive and engaging learning environment. As opposed to traditional college teaching during which students (passively) listen to the lecturer, an active learning approach uses a variety of activating strategies and instructional methods, such as guided group discussions, interactive lecture, brainstorming during class, etc. In the last few years, there have been many examples of successful implementations of active learning techniques and strategies within the UG.

It is opportune to use the additional funds to build further upon the earlier successes and to continue investing in active learning for the following reasons:

1. Research as well as the UG’s own experiences reveal that active learning methods have a positive impact on student achievement. For instance, in a metaresearch Freeman et al. analysed the data of 225 studies which compared student performance in an active and in an inactive setting. The study revealed that active learning has a significant positive impact on student achievement¹. Another research, by Hattie, shows that different kinds of active learning methods have a significant impact on student achievement². There are many reasons for this positive impact. Among them are the fact that active learning promotes in students a deeper understanding of the learning material, as they actively engage with the content. Also, by using active learning methods the different learning styles of students are supported better than only offering a traditional college teaching. Furthermore, active learning techniques are often a welcome change of pace for students. A different approach to learning can be fun and helps to maintain concentration.
2. Active learning has many benefits for teachers as well. For instance, when students actively participate in learning activities, teachers can receive immediate feedback from students. This gives them the opportunity to adapt their teaching accordingly during the course of their class. Another example of a benefit for teachers is that new teaching techniques and methods offer new possibilities (e.g. introducing game elements through new e-learning tools). This wider range of possibilities can be stimulating for teacher and contribute to increased enthusiasm.
3. Active learning is an excellent educational approach to teach students generic competencies and important 21st century skills, such as critical thinking, creative thinking, collaborating, communicating, information literacy, media literacy, technology literacy, flexibility, initiative, social skills, productivity, leadership and intercultural competencies.

¹ Freeman et al. (2014). Active learning increases student performance in science, engineering and mathematics, *PNAS vol. 111 no. 23*.

² Hattie, J. (2015). The applicability of Visible Learning to higher education. *Scholarship of Teaching and Learning in Psychology, 1 (1)*, 79-91.

4. Active learning is a way of motivating students to become active, involved, and responsible members of the academic community.
5. As pointed out above, successful implementations of active learning techniques and strategies have already been made. The already mentioned learning communities and international classroom (which are concepts on their own *and* active learning strategies at the same time), E-learning tools such as Flipping the Classroom, research-driven education or education-driven research through which students are actively engaged in research, are all examples of active learning that already take place in our university. The task force is of the opinion that it is a sound choice to use the additional funds to develop these activities further, build further upon these successes and consolidate active learning further in our education. This is also a feasible goal given the restricted time limits we are faced with (the funds should be spent in the year 2018). The task force opinion is in line with the opinion of most of the faculties, which indicated that they indeed already use various forms of active learning within their programmes and that they feel it would be useful to further strengthen and develop active learning in their faculty.

Proposal

It is recommended to invest in the further development of active learning in the following ways:

1. The digital infrastructure for active learning should be improved, because technology can be a great benefit for active learning. As an example, the task force suggests the university-wide implementation of the tool Perusall;
2. The additional funds should be used to extend teacher support. Teaching staff who would like to implement active learning or new technologies that facilitate active learning in their courses should be able to do so easily. Among other things, one of the most important conditions for achieving university wide implementation is that teaching staff is provided with proper support (support staff and/or dedicated student assistants).
3. In addition, a (digital) toolbox for teachers should be developed that offers various forms of information and support for teaching staff;
4. Implementing active learning in a course often requires changes to various (didactic) aspects of that course and/or the course material. The additional funds can also be used to cover such development costs for teaching staff who want to innovate their course(s).
5. Each faculty will indicate one of its programmes in which active learning will be integrated in the curriculum in an integral way starting from year 1 until year 3 (e.g. six active learning courses in the entire curriculum).

1.2. Interdisciplinary project-based learning (specific form of active learning)

Currently, our alumni are faced with a labour market that increasingly demands that they have relevant skills besides the knowledge and skills traditionally taught in universities, such as collaboration skills, communication skills, intercultural skills, creativity, critical thinking. Development of these skills, also known as ‘the 21st century skills’, is essential to prepare students for a more and more complex life and work environment in the 21st century. At the same time complex societal problems increasingly demand solutions which require an interdisciplinary approach. Interdisciplinary project-based learning offers students the opportunity to work together in teams with students from other disciplines on engaging and complex real life problems coming from society (companies, organizations, government). With this active learning teaching method students not only come into contact with the labour market, learn to put theory in practice and improve their academic skills. They also get the opportunity to develop the important 21st century skills and they will learn to understand bodies of knowledge from other disciplines, to integrate them and create new understanding.

Using the additional funds for promoting interdisciplinary project-based learning is opportune for the following reasons:

1. Students are currently facing two contradicting developments. As stated above, on the one hand, the current labour market increasingly demands students to have relevant skills other than the knowledge and skills traditionally taught in universities. At the moment, students tend to develop many of these skills by gaining experiences outside the curricula in various ways. On the other hand, however, study pressure increases because of governmental (financial) measures. This paradox makes it hard for students to gain the experiences required and at the same time keep up with their study schedule. By better incorporating in our study programmes the development of relevant skills required by the labour market, the UG could help its students solve this problem and better prepare them for the labour market. The need for improvement of our labour market preparation seems to be emphasized as well by the fact that our university still scores below the national average concerning 'Career Preparation' in the National Student Survey (NSE). Furthermore, career preparation is also an important theme on the national level. In the 'Strategische Agenda Hoger Onderwijs en Onderzoek 2015-2020' the Minister for Education pleads for a better connection between the study programmes and the labour market.
2. By choosing the problems students will work on strategically, interdisciplinary project-based learning could offer the opportunity to incorporate the UG's focus areas of Energy, Healthy Ageing and Sustainable Society more in its educational programmes.
3. As other teaching methods in which students work together in groups, interdisciplinary project-based learning too could contribute to further internationalisation of our programmes. When both national and international students participate in these learning projects, students with different cultural backgrounds thus learn to work together. The international aspect could also be enhanced by choosing problems with an international component. As such, this type of learning projects could highly resemble the interdisciplinary and increasingly international work environment in which many of our alumni will end up.

Several faculties (e.g. UCG, FSE, GMW) indicate that they are very interested in this type of active learning and some already make use of interdisciplinary problem-based learning within their faculty across the boundaries of the individual programmes. Others have no experience yet with interdisciplinary problem-based learning but are open to the idea of investing in it and a third group of faculties finds the idea sympathetic, but feels it would be problematic to incorporate it into their programmes, because of, for instance, issues like civil effect or practical difficulties such as a lack of time and money to develop such courses.

Proposal

Given its benefits and the predominantly positive attitude of the faculties, it is recommended to invest in the specific active learning form of interdisciplinary project-based learning. The following possibilities for stimulating interdisciplinary project-based learning can be identified:

1. The free space/minor space seems the best phase to implement project-based interdisciplinary learning in our programmes;
2. Full interdisciplinary project-based minor programmes (for instance 3) can be developed based on societal themes in cooperation between different faculties.
3. The additional funds can be used to pay the development costs (which is also the time put into it) of project-based interdisciplinary learning projects and minors. This would respond to the concerns expressed by some faculties.

2. Personalized learning and personalized feedback

2.1. Improving personalized feedback

The UG's educational vision aims at helping students to become active and responsible owners of their own learning process by creating the optimal interactions between staff and students. Personalized learning and good quality feedback seem to be essential. After all, gaining *insight* in one's own learning process is the first step towards becoming the *owner* of this learning process. 'Personalized learning' means tailoring education to the different needs, interests or aspirations of individual students through the use of ICT-tools. Instead of a 'one-size-fits-all', more traditional approach to education, personalized learning is student-centered. Particularly 'personalized feedback', i.e. feedback that is targeted to the individual situation and needs of the student in question, is very promising. It can roughly be divided into personalized feedback on content and assessment (e.g. on the extent to which a student has acquired the learning objectives of the course at certain moments during the course) and personalized feedback on the basis of learning analytics, i.e. analyses of meta-data on student characteristics, performance, preparation, etc. (e.g. the amount of time spent on certain content of the course).

It is opportune to invest the money from the additional funds in improving personalized feedback for the following reasons:

1. Bloom (1984) pointed out the paradox that one-to-one tutoring (a form of personalized learning) in combination with mastery learning (a form of formative assessment) has a very high positive impact on student achievement. However, it brings very high costs, as teachers have to invest a lot of time (this is called the 2 Sigma Problem)³. In Bloom's time, this aspect made personalized feedback (and personalized learning in general) rather unrealistic. Nowadays, however, educational technology provides us with a wide range of ICT tools and learning environments that can support academic and support staff. This can bring personalized feedback within reach at relatively low costs;
2. Learning needs to be a continuous process and students benefit most when they can learn through good quality feedback (this is the case for peer-to-peer feedback as well as for teacher feedback⁴) from the mistakes they made in the past. Personalized feedback is especially important in relation to formative assessment and other feedback moments during courses, as it helps students to adapt their learning process. As personalized feedback helps students gain more insight in their learning process, it can stimulate self-reflection, contribute to an active learning attitude and strengthen ownership of the learning process;
3. When consistently formulated in terms of knowledge, skills and attitudes, personalized feedback will shed light on personal strengths and weaknesses and will stimulate students' awareness of which specific knowledge, skills and attitudes they can bring to the labor market (their 'unique selling points');
4. Finally, it is possible to invest in an infrastructure for personalized learning and personalized feedback in 2018 in such a way that this will subsequently lead to structural improvements in education in the coming years. This makes it a suitable investment for the additional funds in 2018. Furthermore, this is in line with the Board's and the University Council's wish that the additional funds should be invested in goals with a long term impact.

Almost all faculties visited indicated that they support the idea of improving personalized feedback, as long as it is facilitated by digital tools to support teaching staff and help decrease, or at least not increase teacher workload.

³ Bloom, B. (1984). "The 2 Sigma Problem: The Search for Methods of Group Instruction as Effective as One-to-One Tutoring", *Educational Researcher*, 13:6 (4-16).

⁴ The conscientious consumer: reconsidering the role of assessment feedback in student learning.

Proposal

It is recommended to invest money from the additional funds in improving personalized feedback by offering more and better formative (and feedback on summative) assessment and feedback through technology that improves the quality of education and reduces, where possible, the workload of teachers. This can be realized in the following ways:

1. Money from the additional funds should be invested in (new) educational technology that facilitates personalized feedback (also on writing assignments) without increasing lecturers' workload.
2. It should be decided which ICT programmes will be offered at a central level. The programmes should be easy to use and should be compatible with the programmes already used. The task force advises to invest in proven technologies and stick with a choice of programmes for a longer period of time, so that teachers who put time and effort in adapting their courses to a particular ICT tool will benefit from that for a longer period of time. It is advised that the UG chooses to offer only a limited number of programmes, so that teachers do not face the burden of choice and can build up experience in the use of these programmes while getting proper support.
3. Teachers should be offered support to implement digital tools for personalized feedback into their courses through the help of actual support staff in and outside of class.
4. Especially new teachers can be highly supported to implement these possibilities into their courses, as it can be an option to integrate the use of digital feedback possibilities into the courses offered by the UG to new teachers.
5. A digital toolkit for teachers can be developed to increase the use of digital technologies (the following digital toolkit of the University of Utrecht can be seen as a best-practice: educate-it-uu.sites.uu.nl).

Specifically related to learning analytics (i.e. analyses of meta-data on student characteristics, performance, preparation, etc.):

6. The Early Warning Signals tool identifies at-risk students as early as possible on the basis of learning analytics and generates signaling reports. Investing in Early Warning Signals can be useful to help students at an early stage and to prevent them from dropping out.
7. By offering content and formative assessment digitally as much as possible it becomes possible to generate data (through learning analytics) that can in turn improve formative assessment and personalized feedback.
8. Apart from investing in the digital possibilities of collecting data for early warning, the UG should also invest in staff who can support students who received warnings.

The use of learning analytics must always be optional and students should be free to choose not to share their data. Furthermore, meta-data from learning analytics can never directly influence the grades or assessments of students, but can only lead to more insight and hence better support of students.

2.2. Digital assessment

The theme of digital assessment is partially related to the previous theme of improving personalized feedback, but it has some unique features which justifies that it be approached as an individual topic of its own. Almost all faculties are very positive about digital assessment. Currently, however, the time that has to be invested in developing (formative and/or summative) digital assessments often forms a barrier to do so. Furthermore, not all teaching staff is sufficiently informed about how to develop digital assessments in a proper way.

It is favorable to invest in digital assessment for the following reasons:

1. When the possibilities for giving personalized feedback in (the adapted version of) the student portal of Blackboard currently used for digital assessments are improved, digital assessment can stimulate giving personalized feedback;
2. Faculties feel that making formative and summative digital assessment possible on a larger scale than is the case today, this would help decrease the workload of their teaching staff.

Proposal

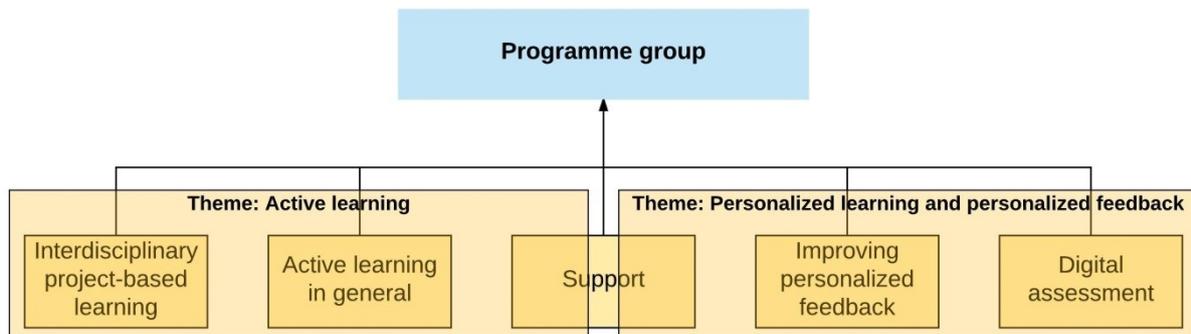
It is recommended to invest money from the additional funds in digital assessment in the following ways:

1. Money from the additional funds should be invested in making digital assessment possible on a larger scale. Ideally, this will also entail improving the possibilities for digital assessment in the inner city ('binnenstad');
2. To also improve the possibility of giving personalized feedback, the possibilities for giving personalized feedback in (the adapted version of) the student portal of Blackboard currently used for digital assessments, should be improved;
3. Money should be invested in offering support (by e.g. ESI staff members) related to developing digital assessments and to support teaching staff in optimally using the feedback function in the portal;
4. A tool could be developed which could support teaching staff in designing and developing digital assessments.

4. Broad programme structure and timelines

Figure 1 schematically illustrates the programme structure anticipated to implement the proposals described above.

Figure 1



The two themes of 'Active learning' and 'Personalized learning and feedback' each have two subthemes. For each of the four subthemes (e.g. Active learning in general, Interdisciplinary project-based learning, Improving personalized feedback, Digital assessment) a project group will be installed. As support for teaching staff is a recurring topic in all four subthemes, in addition a fifth project group will be installed to consider the necessary steps to be taken regarding offering support on the basis of the input from the other four groups. The five project groups are composed of representatives from the faculties, the University Council, OSK and ESI. The participation of representatives from the University Council and from the faculties is important to safeguard sufficient support for the projects from the University Council and the faculties. The project groups are responsible for the formulation of an action plan for the implementation of

their theme/project and for carrying out the project accordingly. Each project group has a member who acts as project manager. Together these projects will form a programme.

The overarching programme will have a programme group that will be in charge of the overall coordination and monitoring of the projects and project groups. The programme group is also responsible for making decisions on specific problems which cannot be solved by the project groups or are relevant for the programme as a whole. The programme group will consist of faculty board members, representatives of the working groups, representatives of the University Council, representatives from OSK, ESI, and ABJZ. Again, participation of representatives from the University Council and from the faculties is considered to be important from the perspective of safeguarding sufficient support from the University Council and the faculties. One of the members of the programme group will be appointed by the Board of the University as programme manager.

The project managers will report to the programme manager and the programme manager will report to the Board of the University. The Board will have consultations with the University Council about the (progress, monitoring and evaluation of) the programme. The Board is ultimately responsible for the proper spending of the money from the additional funds.

Roughly, the following timelines are proposed:

- Phase 1: December 2017 – June 2018
During phase 1, the project groups, coordinated by the programme group, will further elaborate on their theme and come up with a concrete action plan for implementation.
- Phase 2: June 2018 - December 2018
Phase 2 will be the phase during which the planned actions will be implemented.
- Phase 3: First half of 2019
In phase 3 the programme as a whole and the individual projects will be evaluated.

5. Monitoring

It is proposed that the University Council is involved with the monitoring of the programme in two ways:

1. Members of the Council (students or staff) will be part of the programme/project groups.
2. The University Council will receive a brief mid-term review report in June, half-way during the programme. On the basis of this review, the University Council can assess the action plans of the project group and judge whether any changes are necessary in order to make the programme successful.
3. At the request of the University Council, the Board of the University will have regular consultations with the University Council about the (progress, monitoring and evaluation of) the programme throughout the year.
4. The University Council will receive an evaluation report after the programme has finished. The evaluation report will at least comprise a qualitative analysis on the investments made and will indicate in what way the money has come to the benefit of educational quality. Special attention will also be paid to expected long-term impact, sustainable embeddability and dissemination of best-practices.

6. Finances

The additional funds of the Studievoorschotmiddelen amount to a total budget of K€ 2.900.

K€300 of this budget is allocated to the interdisciplinary project-based learning project group for the development costs of three new minors (K€ 100 per minor).

K€1.100 is reserved for the initiatives and activities of the project group 'Active learning in general'. This is based on the assumption that in each faculty active learning will be implemented in an integral way in the curriculum of one programme, by incorporating six active learning courses. For each course K€16 is budgeted.

For the theme of Personalized Learning and Personalized Feedback K€ 1.100 is available in total, which is to be divided between the project groups of 'Improving personalized feedback' and 'Digital assessment'.

Support is a crucial factor for both the Active Learning and Personalized Learning and Personalized Feedback projects. Therefore, for both Active Learning and Personalized Learning and Personalized Feedback K€ 200 each is available. This K€400 in total will be allocated to the fifth 'Support' project group.

7. Dissemination

In order to benefit from best practices and to further build upon those best practices, it is important to share experiences between teaching staff. Dissemination could be organized in the following ways:

- A platform can be used to support sharing and dissemination of knowledge, experiences and best practices;
- The information provided can be further disseminated through separate events (presentations, workshops, etc.) and the website;
- In addition, didactic methods, tools and technologies which have proven to be successful, can be actively propagated for university-wide implementation, for instance by making a toolkit.