



Netherlands Initiative for Education Research (NRO)

Call for Proposals

Differentiation in Education



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1 Introduction

1.1 Background

The Netherlands Initiative for Education Research (Dutch acronym: NRO) coordinates and funds educational research and enhances the connection between scientific research and educational practice. The NRO contributes to innovation and improvement in education.

There are four types of research programmes at the NRO, each with its own programme council: fundamental, policy-oriented, practice-oriented and overarching. The overarching programme intersects with the other programmes.

This Call for Proposals falls under the responsibility of the Overarching Programme Council for Educational Research (*Overkoepelende Programmaraad voor het Onderwijsonderzoek*, or OPRO).

The NRO is part of the Netherlands Organisation for Scientific Research (Dutch acronym: NWO).

Sphere of activity

The OPRO funds scientific research in the areas of pre-school education, primary education, general secondary education, special education, preliminary, secondary and higher vocational education, academic higher education, teacher training institutes and related adult education. Applications must fall within this sphere of activity.

This Call for Proposals

The OPRO issues research calls through various funding instruments. This Call for Proposals provides an overview of the application procedure for a grant, and how a proposal is assessed and selected, for projects in connection with the Differentiation in Education funding round.

The research, which must have a fundamental, a policy-oriented and a practice-oriented perspective, should cover one or more of the questions specified in Section 2. Applications may relate to primary education, secondary education, special education, preliminary and secondary vocational education, and higher education.

1.2 Available budget

An amount of € 1,500,000 has been set aside for the Differentiation in Education funding round.

1.3 Validity of the Call for Proposals

This Call for Proposals is valid until the closing date of **2 December 2014, 12:00 noon**.

2 Aim

2.1 Introduction

The variation between children in one class can be significant. In primary education the classical method involves working with year groups consisting of pupils of about the same age. The variation is limited only by references to special education. From the first year in secondary education in the Netherlands, the classes become more homogeneous, namely basic vocational, secondary vocational, general and higher secondary and pre-university education. Some schools opt for heterogeneous first-year classes or a heterogeneous bridging period so as to increase cognitive variation in a class. There is a highly diverse intake for secondary vocational education as a whole, as well as at the different levels.

This heterogeneity demands increasing attention. It is assumed, for example, that outstanding students are not getting the education they need. By taking differences between children into account more, education could be made more challenging and thus lead to better results. A 'tailored' approach would also be desirable for other differences. Consider for instance the differences between boys and girls, differences in cultural or linguistic background and specific attention for students with behavioural or learning difficulties. Increasingly, this raises questions about the possibilities and desirability of adaptive instruction. These relate to fundamental, policy-oriented and practice-oriented research – three perspectives that can be well combined with each other.

Differentiation in Education is a relevant research topic for the NRO. As part of the funding round of the NRO Programme Council for Practice-oriented Research, 'Short-term research in 2013', four proposals were already awarded funding in the spring of 2014 for 'Differentiation in Education: Responding to Cognitive Differences.' The research to be carried out through the current Call for Proposals will complement this and is characterised among other things by its long-term nature, bigger budget and the combination of fundamental, policy-oriented and practice-oriented research. It must take place within the substantive framework outlined below.

The NRO would like to thank Prof. W.J.C.M. van de Grift (University of Groningen) and Prof. P.J.C. Slegers (University of Twente) for writing the Dutch version of the programme text.

2.2 Differentiation in Education

Introduction

In recent years, the diversity of the student population in education has increased in both behavioural and cognitive terms. To properly manage this diversity, teachers will have to tailor their classes to the differences in their students' development. However, the number of teachers who succeed in doing so is small, as appears from the reports of the Education Inspectorate, although this applies to a lesser extent for primary education than for secondary education. Moreover, the provision of tailored education by teachers is not only a problem for students who have learning difficulties. It has recently been shown that high achievers are also not getting the kind of education they need to excel.

Given the commonly-held desire that every student should receive the education that suits him or her, these persistent facts are disturbing. Consequently, the need for teachers to create more adaptive instruction forms for their classes is increasingly emphasised by school heads, policymakers and scientists. It is assumed that tailored education would better meet the individual learning needs of students than the current dominant classical teaching practice. To substantiate these arguments for more adaptive teaching and differentiation by teachers and help bring this about, research is required into the nature, quality and effects of different forms of differentiation and the circumstances that play a role. The main factors that play a role in differentiation in education are outlined below. This description leads to a number of research questions that should be guiding for future long-term research into this subject. The aim of the research is to make an important contribution to the NRO's mission. This means that the research should contribute to answering fundamental, policy-oriented and practice-oriented questions relating to the design and effectiveness of school as a learning environment in which alignment with and optimisation of individual learning needs of students is central.

Differentiation is hard: the role of teachers' experience, expectations and knowledge

The need to effectively tailor education to individual students largely depends on the composition of the student population. Not every educational sector, school or class necessarily has a high degree of heterogeneity. The differences between students increase as they progress through primary education, so one may expect that more differentiation by teachers is needed in higher classes in primary education than in lower classes. A similar reasoning applies to secondary education. In lower secondary education, where all pupils are divided into no less than seven level groups ranging from practical training school to grammar school, less differentiation is required than in group 8 of primary school. In the past 25 years, about 13% more students attended general secondary education and pre-university education schools than in the previous years. This means that these classes have become more heterogeneous in composition, while the classes in practical and basic vocational secondary schools have become more homogeneous. One observation we can already make is that it is much more difficult for a teacher in secondary education to get to grips with the level and specific problems of students from multiple classes than for a primary school teacher who usually has only one group of pupils.

Experience

Despite these differences, many teachers find it one of the hardest skills in their profession to tailor education to the different needs of their students. Many newly graduated teachers are more than capable of creating a secure and stimulating learning environment for their students, effectively managing their classes and explaining the material clearly. A teacher must first master these basic skills before he or she can successfully embark on the process of engaging students and tailoring education to differences between students. In addition, a good understanding of the composition and structure of the curriculum is needed to properly tailor education. This understanding makes it easier for teachers to identify what all students should be able to master and what will be difficult for some students. Some beginning teachers are able to provide tailored education after just a few years, but for others it takes much longer. Gaining experience with differentiation therefore plays an important role in being able to effectively support students in their academic development. This may be one of the reasons why it is difficult to tailor education to the differences between students at the level of the education system. Not only is differentiation difficult, it also requires time and effort. Add to this the realisation that in the coming years a relatively large number of experienced teachers will,

through ageing, be replaced by inexperienced, beginning teachers, it may be expected that differentiation will remain a persistent problem in education in the years to come. A major challenge is therefore to ensure that beginning teachers quickly reach the level of skill needed to tailor education as much as possible to the level of individual students.

Expectations

To be able to tailor education to the development of students in an effective way it is essential to properly identify students' individual learning needs. Research has shown that teachers treat students differently based on their expectations of different students. These are often rooted in stereotypical attitudes that teachers have of students from an ethnic minority group, students from low socio-economic backgrounds, and female students. This method often leads to reactive and intuitive forms of differentiation which, moreover, underestimate the qualities of these students and overestimate those of others. Promoting a more rational approach by teachers to identifying students' needs would seem desirable in order to better align education with students' development opportunities. To support teachers in this, a number of valid and reliable assessments can be used to identify the possibilities (knowledge, skills, attitudes and competencies), interest (motivation) and learning styles of students. Some experience in using assessments has already been gained in the context of a results-oriented approach introduced in primary schools. In addition, student monitoring systems are used to analyse the cognitive development of students and to tailor education to this development. However, systematic knowledge about whether and how teachers use ICT tools to collect and analyse data and report on the social, emotional and cognitive development of their students is still lacking. Furthermore, little is known about the extent to which such assessments are experienced as meaningful by teachers in tailoring education to individual students.

Knowledge

Although proper identification of learning needs is important, there is more to differentiation. After the diagnostic stage, teachers must create a learning environment that optimally stimulates students' learning opportunities. To do so they must proactively adapt the curriculum, teaching methods, learning activities and students' products. This requires teachers to have a thorough knowledge of general didactics, teaching methodology, developmental psychology, curriculum design, curriculum development and evaluation methodologies. Given the increased diversity in student population it seems such knowledge has become even more critical in order to adequately meet the learning needs of specific target groups, such as students with ADHD, PDD-NOS, fear of failure, motivation problems, repeaters, potential leavers and the like. More research should be conducted into teachers' practical knowledge on general didactics, teaching methodology, developmental psychology and the like, particularly with a view to tailoring education to specific target groups.

Effectiveness of differentiation: manifestations and conditions within the school

Research has shown that not all forms of differentiation that are in use are also effective. Some approaches, such as working with level groups, an approach with individual learning tracks or remedial assistance outside the classroom that departs from the method in the classroom, are known to sometimes have adverse consequences that outweigh the intended (positive) main outcome. Then there are approaches, such as convergent differentiation, which initial research has shown to be promising but which are barely known in the educational field.

Specific differentiation issues that have to do with how teachers can get students to excel are undervalued in the research. Furthermore, little is known about how to prevent underachievement of gifted students in higher forms of secondary education and how to get these students to excel.

In creating a learning environment tailored to the development of individual students, teachers can also use powerful ICT tools or computer-assisted learning environments (games, simulations, etc.). Although research has shown that such innovative learning environments (e.g. computer simulations in the context of inquiry-oriented learning) can, under certain conditions, stimulate a student's learning process, they are still underused in education. Given the potential of ICT-rich learning environments to help teachers deal with the problems they experience in differentiating between students, their implementation deserves systematic analysis. Further research is therefore essential. Particular attention should be given to the effectiveness of these types of innovative computer-assisted learning environments for the emotional, cognitive, meta-cognitive and social development of specific target groups, such as excellent students, underachievers, students with developmental disabilities (ADHD, PDD-NOS), etc. Research has shown that the learning environment (traditional versus innovative) has differential effects on the motivation and self-regulation of students.

In addition, attention should be given to identifying conditions in schools that facilitate the implementation of (computer-assisted) learning environments with the aim of better tailoring education to students' development. Research has shown that changing teachers' instruction practices is by no means an easy task. In addition to teachers' personal effectiveness expectations, the quality of peer interaction and support from the school management appears to be important in changing teachers' educational practices. For example, research into professional learning communities in schools and the school as a learning organisation shows that shared vision and vision development, cooperation, trust, participation in decision-making, shared leadership and systematic feedback and evaluation are important conditions, at school level, for the professional development of teachers and for improving education. In line with this, a greater understanding is also needed into how teachers and schools can be supported in effectively implementing adaptive instruction practices. This may include interventions aimed at the professional development of teachers in schools, but also breaking through existing organisational routines (e.g. protocols, schedules, assessments and tests, etc.) and the physical environment of the school (layout of the building). The ultimate aim is to be able to design a learning environment in schools that allows teachers to meet the individual learning needs of students in an effective manner.

Differentiation in the international context

As indicated above, according to reports of the Education Inspectorate only a small number of teachers in the Netherlands manage to effectively tailor education practice to the development of their students. Despite this concern, several international comparative studies have shown that Dutch primary school teachers are more successful in doing so than their colleagues in Flanders and Lower Saxony. Given the amount of effort and energy it costs teachers to effectively tailor education to the differences between students, they certainly deserve acclaim for this. It is therefore important to continue these types of international comparative studies to obtain a greater understanding of the quality of Dutch education from an international perspective.

Unfortunately, no results are available about how well our secondary school teachers provide differentiated education compared to their counterparts in

neighbouring countries. For that reason, international comparative research into the differences in their teaching methodology and didactics is highly desirable. To this end, alignment could be sought with international comparative research in which the Netherlands is already involved (such as TIMSS and PISA).

Based on these considerations a number of research questions were formulated, as set out below. Applicants are invited to submit a research proposal in which one or more of these questions are addressed; additional research questions may also be included. The resulting research must have a fundamental as well as a policy-oriented and practice-oriented perspective.

Research questions

1. How does the composition (heterogeneity, etc.) of schools and classes influence the extent to which and the manner in which teachers effectively tailor education to different learning needs of individual students?
2. How do teachers use their (practical) knowledge about general didactics, teaching methodology, developmental psychology, curriculum design, curriculum development and evaluation methods and so on in meeting the learning needs of problematic target groups such as students with ADHD, PDD-NOS, fear of failure, motivation problems, repeaters, potential leavers, etc. and how can teachers' practical knowledge be improved?
3. Which diagnostic instruments to identify the learning needs of students do teachers use in giving shape to differentiation in the classroom and are those tools used effectively and efficiently?
4. What forms of differentiation (subject-specific, development specific, etc.) are effective for the social, emotional and cognitive development of students and for specific target groups?
5. What computer-assisted learning environments designed to support teachers in tailoring education to the needs of students are effective for the optimal development of students?
6. What are the barriers and facilitators in schools in implementing computer-assisted learning environments that allow teachers to optimally tailor education to the differences between students? What is the school management's role in this?
7. Which collegiate partnerships in schools are effective in helping teachers – especially beginning teachers – to acquire the necessary level of skills to effectively tailor education to differences between students?
8. Compared to their counterparts in neighbouring countries, are teachers in Dutch secondary education better or worse at tailoring education to differences between students? What explanations can be given for this?

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3 Guidelines for applicants

3.1 Who can apply

An application can only be submitted by a consortium of researchers as well as staff members of institutes in the field of educational practice. The application must be prepared jointly, but the main applicant must be a staff member of a knowledge institute. In addition to the main applicant and co-applicants, other persons may also be part of the consortium.

Researchers from the following knowledge institutes can submit applications:

- Dutch universities;
- (lecturers at) Dutch universities of applied sciences;
- Dutch institutes with expertise in conducting educational research.

Researchers should have proven expertise and experience in conducting educational research and in translating research results into practice.

In addition to researchers, the consortium must also consist of professionals who work in education-oriented institutes (e.g. educational support services, consulting firms, schools, etc.) in the Netherlands. They may, if desired, be a co-applicant. Their role in and added value for the research must be described clearly and adequately in the research proposal.

An application in this Differentiation in Education funding round should have one main applicant and one or more co-applicants. In this funding round you may only be an applicant once: either a main applicant or a co-applicant.

During the period for which funding is requested the main applicant and co-applicants must remain effectively involved in the research covered by the application. The institutes that employ them must give the applicants the opportunity to conduct the research in an adequate manner.

Members of an assessment committee may not be an applicant in the same round. OPRO members are not excluded from participation: they meet the definition given for 'applicant'. As required under the NWO Code of Conduct on Conflicts of Interest, the assessment procedure contains safeguards for dealing with possible involvement of OPRO members.

3.2 What can be applied for

An amount of €1,500,000 has been set aside for this funding round.

Applications may be submitted for research projects with a **term of at least three and at most four years** and a **budget of at least € 300,000 and at most € 500,000**. A proposal should include a description of the central research questions, the topics, the research methods, the relevance for scientific knowledge, the policy and practice of education, the institutes involved and the intended results.

A grant may be applied for to cover both the staffing and material costs to be incurred for the research.

Staffing costs

A distinction is made for staffing costs between 'staff with fixed rates', 'staff with variable rates' and 'staff of educational institutes'. Funding for administrative support tasks cannot be requested under this grant.

- Staff with fixed rates:

The remuneration for postdocs, junior researchers and non-academic staff appointed to a university is based on the standard salary payments (see the document entitled 'Tabel G-posten') agreed on annually as part of the '2008 Agreement on funding academic research' with the VSNU. The salary costs of employees with a permanent employment contract are also eligible for funding. With regard to fixed rates you can choose either to scale staff based on years of service or years of experience, or to scale staff into 'year one' regardless of their experience. An explanation of how the fixed rates are calculated is given at <http://www.nro.nl/toelichting-invullen-vaste-tariefstelling/>. Junior (PhD) researchers may be part of the consortium, but completing a PhD should not be the sole purpose of the proposed research.

- Staff with variable rates:

Consortium members who are not affiliated to a university (this includes lecturers) may charge a daily rate based on the gross salary according to the actual salary scale and periodicity of the applicable collective bargaining agreement (if relevant) plus all the required surcharges. This budget system also applies for staffing costs involving senior lecturers and professors who are appointed to a university, but in this case the surcharges are limited to the maximum amounts agreed under the aforementioned VSNU agreement, except for indexation and the end-of-project fee.

- Staff of educational institutes:

Staff of educational institutes (institutes for pre-school and early childhood education, primary education, secondary education, secondary or higher vocational education) may be remunerated in line with the daily rates of employees in the education sector (internal staff), which are based on the following maximum reference amounts per hour:

Teachers	€61 (€488 per day)
Project managers/teacher-researchers	€67 (€536 per day)
Executive Board	€79 (€632 per day)

These hourly rates include a surcharge to cover various additional costs such as conference fees, travel and accommodation costs, management, organisation, housing, administration, facilities, ICT costs, audit fees, small business expenses and internal costs.

These rates are binding; nonetheless, the requested budget, the scope and the nature of the staffing costs should be specified and justified.

Material costs

Funding can also be requested, with the application, to cover material costs such as:

- procuring special equipment and consumables needed for the research;
- costs of conducting surveys, experiments and test research, and the procurement of databases;
- travel in connection with the research and attending conferences and working visits;
- costs associated with the dissemination of research results and knowledge transfer. This requires a separate budget to be set aside in the application;
- student assistance.

Applicants in this round **cannot** apply for a (personal) bench fee.

Material costs should be accounted for both financially and substantively. When awarding a grant the NRO reserves the right, in connection with budgetary considerations, not to assign the full amount for requested material costs.

The costs of equipment, consumables or administrative or technical assistance that are part of the normal facilities package of a research institute and the costs of using laboratories and computers in data centres are not eligible for funding, unless the research requires the use of facilities that demonstrably exceeds normal use. Only costs resulting directly from the research are eligible for funding. Therefore, no housing, overhead, maintenance and depreciation costs may be funded from the budget.

Knowledge utilisation

The NRO, along with NWO and others, believes it is important for scientific knowledge and skills to be disseminated and utilised outside the academic domain or in other academic disciplines, in other words: to stimulate knowledge utilisation. Therefore, of the requested funding at least 5% of the budget should be earmarked for knowledge utilisation.

Open Access

The NRO shares the belief that research results obtained with public funding should, where possible, be publicly accessible. This applies to both scientific publications (journal articles, books) and research data. Main applicants should therefore set aside an amount of €4,000 for Open Access publications in their budget accompanying their application. This will allow for a number of publications to be made.

If you wish to spend more than €4,000 on Open Access publications you can apply for an additional €5,000 from NWO for projects that have been awarded funding. The NWO provides a budget specifically intended for financing Open Access publications (<http://www.nwo.nl/financiering/onze-financieringsinstrumenten/nwo/stimuleringsfondsen-open-access/stimuleringsfondsen-open-access---publicaties/stimuleringsfondsen-open-access---publicaties.html>).

Financing

Grants are allocated and fully paid to the institute of the main applicant and are not personal. The payment of staff and material costs will be according to the instalments specified in the award letter. The last instalment will be paid after approval of the final report and the financial accounts.

3.3 When can applications be submitted

The closing date for submitting applications is 12:00 noon on **2 December 2014**.

3.4 Preparing an application

Your grant application has two parts: a fact sheet and the application form.

- You complete the fact sheet directly in NWO's electronic application system, Iris.

- The application form is on the grant page for this funding round on the NWO website. As soon as you have completed it you can add this form to the Iris fact sheet as a PDF file.

Applications must be in English.

3.5 Specific conditions

As a general rule, main applicants may only submit proposals that fit within the theme of this funding round.

A main applicant is expected to be willing to assume academic, organisational and financial responsibility for the research to be funded. This means that if a grant is awarded, the main applicant will be in charge of the coordination and proper implementation of the research as well as the preparation of progress reports, the final research report, financial accounts and proper and complete recording of all the research output.

A research project that has been awarded, funding must start within **three months** after award otherwise the grant decision may be revoked.

All the results of research covered by this programme must be freely published. The research must deliver academic as well as non-academic output.

The NRO is committed to proper dissemination and implementation of intermediate and final research results in education policy and practice. In their proposal, applicants should describe how they will approach this and 5% of the budget must be reserved for the dissemination of research results. This includes €4,000 for Open Access publications.

To the extent not provided for in the Call for Proposals, the NWO Grants Scheme (1 May 2011, version of 22 January 2014) applies.

3.6 Submitting an application

An application can only be submitted to NWO via the electronic application system Iris. Applications not submitted via Iris will not be admitted to the selection procedure. A main applicant is obliged to submit his/her application via his/her own Iris account.

If the main applicant does not yet have an Iris account this should be created at least one day before the submission. This is so that any possible registration problems can still be solved on time. If the main applicant already has an Iris account then he/she does not need to create a new account to submit a new application.

If the main applicant does not work for one of the following institutes:

- Dutch universities;
- KNAW and NWO institutes;
- the Netherlands Cancer Institute;
- the Max Planck Institute for Psycholinguistics in Nijmegen;
- the DUBBLE beamline at the ESRF in Grenoble;
- NCB Naturalis,

this can be reported to the NRO secretariat through opro@nro.nl. The organisation is then added to IRIS. As it takes a few days to process this request, it must be made no later than one week before the deadline.

For technical questions, please contact the Iris helpdesk.

4 Assessment procedure

4.1 Procedure

The NWO Code of Conduct on Conflicts of Interest applies to all persons and NWO staff involved in the assessment and/or decision-making process.

NWO gives all full proposals a qualification. The applicant is informed of this qualification when the decision about whether or not to award funding is announced. For further information about the qualifications see: <http://www.nwo.nl/kwalificaties>.

The procedure consists of the following steps:

- Publication of the Call for Proposals
- Submitting applications
- Processing the application
- Assessment by referees
- Opportunity for the applicant to respond to the referees' comments
- Preparation of advice by the assessment committee
- Meeting of the assessment committee
- Decision by the Overarching Programme Council for Educational Research (OPRO) of the NRO.

4.1.1 Processing the application

Within two weeks of receipt of the application the applicant will be informed whether or not it will be processed. The NRO bureau determines this based on a number of administrative criteria. These are provided in Section 4.2.1. An application that does not meet one of these criteria will not be processed.

Review against Call for Proposals

The NRO bureau reviews the extent to which the processed applications are in line with this Call for Proposals. If this is not sufficiently the case, in the NRO's opinion, the main applicant will be notified and advised to withdraw the application.

4.1.2 The assessment committee's assessment and advice

Assessing applications

The proposals will be submitted to four referees for comments and then reviewed by a broad-based committee established by the OPRO on the basis of the evaluation criteria (see 4.2.2).

Assessment by referees

The processed applications are submitted to independent referees for comments: preferably two foreign referees with an scientific background and two from the Netherlands with knowledge and experience in education policy and/or practice. They are asked to give substantive and substantiated comments on the proposal. The referees formulate this on the basis of the evaluation criteria, for which they use a standardised form. The foreign scientific referees will assess the quality of the consortium and the scientific quality of the proposal. Referees from the Netherlands with experience in education policy and/or practice will assess the quality of the consortium and the social relevance and knowledge utilisation of the research.

The referees are selected based on their expertise and may not be involved in the applications. When submitting applications through Iris, applicants may suggest potential referees with whom they have no direct working relationship. Suggesting referees is no guarantee that these referees will also be approached to assess the application.

The NRO bureau determines, under the responsibility of the OPRO, who is to be approached as a referee. The members of the assessment committee may be asked to make suggestions. If it appears that a referee's comments are overly focused on the person of the applicant or researcher, or otherwise unprofessional, the OPRO reserves the right to have these comments modified before submitting them to the assessment committee, or not to submit them.

Rebuttal

The applicant receives anonymised comments on his or her application and is given a week's time to formulate a reply. If the tenor of the referees' comments is mostly negative, the applicant is urged to withdraw their application. Experience has shown that the probability of a positive assessment in the case of predominantly negative comments is generally very small. If the applicant decides to withdraw the application he/she must notify the NRO bureau in writing as soon as possible.

Assessment committee

The assessment committee is established by the OPRO. The members of the committee are selected based on their expertise and non-involvement in the applications. The committee is a mix of members with a scientific background and members with experience in education policy or practice. Scientific committee members assess the quality of the consortium and the scientific quality of the proposal. Policy and practice members assess the quality of the consortium and the societal relevance and knowledge utilisation of the proposal.

The committee is chaired by a technical chairperson. In accordance with the NWO Code of Conduct on Conflicts of Interest, committee members who are involved in applications may not participate in the evaluation of the applications concerned. After the procedure, the names of the committee members are published on the NRO website.

Discussion by the assessment committee

The assessment committee will discuss each application, the referees' comments and the main applicant's reply and will present a written report on the quality of the application. The advice is prepared in the framework of the applicable criteria.

Only proposals with the qualifications 'excellent', 'very good' and 'good' are eligible for funding. An application to be nominated for awarding of a grant must have at least the qualification 'good' for all the applicable criteria. If the number of proposals with the qualifications 'excellent', 'very good', and 'good' exceeds the number that can be awarded funding within the available budget, the proposals are prioritised by the committee. The committee then advises the OPRO accordingly.

4.1.3 Decision-making by the OPRO

Determining the qualifications and eligibility for funding

The advice of the assessment committee is reviewed and discussed by the OPRO. Subsequently, the OPRO determines the qualifications and decides which applications are eligible for funding. In addition to budgetary and substantive considerations, the OPRO may also take policy considerations into account in its decision, such as a balanced distribution of proposals across the various education sectors. These are provided in Section 4.2.2. The main applicants will be informed of the result of the assessment of their application as soon as possible after the OPRO has completed its decision-making.

4.1.4 After grant award

Start within three months

A research project that has been awarded funding must start within three months after award, otherwise the grant decision may be revoked. Before the start of the project the particulars of those who will conduct the research must be passed on to the NRO bureau using the staff information form or the project notice form that can be downloaded at www.nwo.nl/magwprojectbeheer. The NRO considers the date on which the (first) researchers are actually appointed to be the actual start date of the research and will record this as such in the administration.

Report interim changes

A main applicant whose project has been awarded funding is obliged to notify the NRO in writing of any staff changes or interim policy changes in the research project. The NRO must agree to such changes. Extensions of the grant period are, in principle, restricted.

Monitor research progress and knowledge utilisation

To augment monitoring of the ongoing research, the NRO has established a more interactive form of monitoring. This is not only for the purpose of accounting for the awarded grant, but also to strengthen the connection with other projects in the Differentiation in Education research programme.

After the grant has been awarded the NRO's knowledge utilisation officer will contact the main applicant several times during the term of the research to discuss the progress of the research, the cooperation between the participating parties, the knowledge dissemination and utilisation plan as included in the grant application, and the possible application of research results. Applicants must set aside a separate budget for the dissemination of research results.

Halfway through the term of the research the main applicant must submit a written report of the research conducted so far and the expectations for the research in the remaining period. The written report must be approved by the OPRO. The programme council can make suggestions to bring the research more in line with original aim of the Differentiation in Education programme.

Final report

At the end of the grant period the main applicant must prepare and present a final report and financial accounts, in accordance with the grant provisions of NWO. All academic output and other results obtained thus far in the framework of the project and specified in the application must be recorded. The main applicant must also prepare a detailed schedule of delivery of research output and results that are still expected. After approval of the final report the grant period is closed and the final

grant is determined. Failure to submit the final report on time may result in the final grant instalment not being paid.

4.1.5 Completion

The research can only be completed successfully if at least the output specified in the application is made available to the OPRO. In case of dissertations and reports, the NRO bureau must always be provided with 10 copies. All other publications should be submitted electronically via Iris in their final form. For all other results of the project (software, teaching materials, visual material, procedures, policy advice, etc.) that cannot be sent to the OPRO, the OPRO must be provided with an adequate description.

If the delivery of the expected output and other results is delayed due to force majeure, the OPRO will give the main applicant the opportunity to deliver this within a reasonable period of time. This will postpone the adoption and financial completion of the project.

If there is no force majeure and the main applicant does not deliver the expected output and other results within the prescribed period, the research will be adopted on the basis of the final report. In that case the research will be considered as not having been successfully completed. This may result in the final grant instalment not being paid.

Presentation of results

During and after the end of the programme period the OPRO may decide to convene a meeting for the presentation of all research projects that were awarded funding within the research programme. The focus will be on the contribution of the research to the Differentiation in Education programme. Applicants may also be asked to participate in activities or meetings of other NRO programmes.

Objection and appeal

Formal objections against decisions in the context of the Differentiation in Education funding round can be made in accordance with the applicable objection and appeal procedures.

4.1.6 Timetable assessment procedure

October 2014	Call for Proposals
2 December 2014	deadline for submitting proposals
December 2014	secretariat confirms processing of the application and notifies the applicants.
Dec. 2014 – Mar. 2015	assessment by referees
March 2015	opportunity for the applicant to give a reply to the referees' comments
April 2015	preparation of preliminary advice by the assessment committee
April 2015	meeting and preparation of advice by the assessment committee
May 2015	OPRO decision-making
May 2015	the NRO notifies applicants about the decisions.

4.2 Criteria

4.2.1 Criteria for processing an application

The NRO bureau verifies whether the application meets the following submission criteria:

- Does the proposal address the themes described in Section 2 and does it attempt to give an answer to the questions formulated in the proposal?
- Is the main applicant a researcher with a permanent appointment to a Dutch university, college or institute in the Netherlands and does he or she have expertise in conducting educational research?
- Has the maximum number of 4,000 words for the description of the research proposal not been exceeded?
- Does the requested staffing fall within the criteria?
- Is the term of the project at least three and at most four years?
- Is the grant applied for at least €300,000 and at most €500,000?
- Has the budget been prepared according to the guidelines in the Call for Proposals?
- Has the proposal been submitted on time through Iris?
- Has the compulsory application form been used?
- Has the application been prepared in English?
- Have all questions been answered?

4.2.2 Criteria for assessing applications

Proposals must be in line with the OPRO Differentiation in Education research programme and will be assessed on the basis of the following three criteria:

- **Quality of the consortium**
(this criterion is assessed by all referees and committee members)
 - o *Composition of the consortium*
 - Does the composition of the consortium foster sufficient confidence that the project can be completed successfully?
 - o *Quality of the researchers*
 - Do the scientific members of the consortium have sufficient expertise in conducting research and promoting the use of research results in education policy and practice? How does this appear from relevant publications and presentations?
 - o *Quality of the consortium members who work in education policy and practice*
 - Do the consortium members who work in educational practice have experience in research and in implementing and using research results in their own education practice? How is this evident?

This experience implies among others that the research members are experienced with methodology and equal cooperation with educational professionals. They should be competent in the utilisation of research results in practice and have enough expertise with the thematic subject of the application. This is evident for example by relevant publications and products for practice and science and presentations for educational practice.

- **Scientific quality**
(this criterion is only assessed by scientific referees and committee members)
 - o *Scientific relevance*

- To what extent and in what way is the research theoretically, methodologically and/or descriptively relevant?
 - *Originality*
 - Do the choice and elaboration of the problem, the theoretical elaboration and/or the methodology deserve the qualification of original and innovative?
 - *Elaboration of the research questions*
 - Have the central research questions been clearly described, defined and elaborated?
 - Have the research questions been detailed in a consistent manner in a model, assumptions, and so on?
 - *Design and methods*
 - Are the proposed methods and techniques effective and suitable to answer the research questions?
 - Is the selected methodical design consistent and is it sufficiently motivated?
 - *Organisation of the research*
 - Is the organisation of the intended research clearly defined?
 - Have institutes in education policy and practice been sufficiently involved in formulating the research proposal, conducting the research and disseminating and implementing the research results? How is this evident?
 - Is the estimate of the requested human and material resources reasonable for the proposed research and has this been sufficiently substantiated?
 - *Feasibility of the research*
 - Is there is a well-thought-out and feasible plan of action?
 - *Expected scientific output*
 - What is the scope and quality of the expected scientific output?
 - *Expected contribution to other scientific areas*
 - What is the contribution to other scientific areas?
- **Societal relevance and knowledge utilisation**
(this criterion is only assessed by referees from policy/practice and committee members)
- *Relevance for education policy and practice*
 - What is the relevance of the research for education policy and practice? Does it have a bearing on questions and problems faced by professionals in education policy and practice? Does the research provide recommendations or advice for education policy or practice?
 - How is a connection between fundamental, policy-oriented and practice-oriented research established?
 - Is there an interaction between the scientific, policy-oriented and practice-oriented facets in all phases of the research in order to deliver useful knowledge for policy and practice?
 - *Knowledge utilisation*
 - Does the research proposal include a communication plan for the dissemination of results to other users? Does it adequately outline how (future) users can use the results?
 - *Expected non-scientific results*
 - What is the scope and quality of the expected non-scientific results?

The three assessment criteria are weighted equally.

Prioritisation criteria

When awarding the proposals the OPRO may, in addition to taking the quality criteria into account, also consider the following policy-related factors:

- Budgetary reasons;
- Balanced distribution of proposals across various education sectors.

5 Contact details and other information

5.1 Contact

5.1.1 Specific questions

For specific questions about the NRO and this Call for Proposals please contact:

- R. (Renée) Middelburg MSc. – secretary for Differentiation in Education
Telephone: +31 (0)70 344 05 10 , e-mail: r.middelburg@nwo.nl
- Dr R.A. (Ruud) Strijp – OPRO secretary OPRO
Telephone: +31 (0)70 344 05 66, e-mail: r.strijp@nwo.nl
- OPRO Secretariat
Telephone: +31 (0)70 344 05 0973, e-mail: opro@nro.nl.

5.1.2 Technical questions about the electronic application system Iris

For technical questions about the use of Iris please contact the Iris helpdesk. Please read the Iris manual before consulting the helpdesk.

The Iris helpdesk is available from Monday to Friday from 11.00 to 17.00 on +31 900 696 4747. Unfortunately, not all foreign providers allow you to call 0900 numbers in the Netherlands. You can also send your question by e-mail to iris@nwo.nl.

5.2 Other information

This Call for Proposals and other information can be downloaded from the NRO website at www.nro.nl/. The application form will be available on the website from October 2014.

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