



Work programme 2014–2023

Programme
Research and Innovation in the Educational Sector – FINNUT

**Programme for Research and
Innovation in the Educational Sector
(FINNUT)
2014–2023**

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Foreword

Education plays an important role in an individual's health, quality of life, social engagement, social integration and affiliation with working life. Knowledge and expertise are crucial to the innovation capacity and competitiveness of industry as well as the sustainability of the welfare state, the formation of public opinion and democracy.

The quality and relevance of education must be strengthened to better equip children, young people and adults to meet future challenges in society and working life. This will affect the objectives and substance of the educational system, methods of working and learning, organisation and the achievement of results, and the manner in which the sector functions in conjunction with the development of society and working life. It also requires more clearly targeted investment in research and innovation in the sector.

Research on how the welfare society and the educational system function is defined as a priority area in Meld. St. 18 (2012–2013) *Long-term perspectives – knowledge provides opportunity*, white paper from the Ministry of Education and Research. The Research Council's *Programme on Practice-based Educational Research* (PRAKUT) and the *Programme for Educational Research towards 2020* (UTDANNING2020) have been key instruments in achieving this objective. These programmes are now being consolidated and will be continued in the new, 10-year *Programme for Research and Innovation in the Educational Sector* (FINNUT).

The FINNUT programme will:

- develop knowledge of high quality and relevance for policy development, the public administration, the field of practice and the individual;
- promote scientific renewal in the field of educational research;
- stimulate innovation in the educational sector.

Summary

The *Programme for Research and Innovation in the Educational Sector* (FINNUT) is a large-scale, long-term programme that encompasses the entire educational sector from early childhood education and care (ECEC) institutions and schools to higher education and adult learning. The programme expands on experience from previous programmes at the Research Council and promotes a new focus on innovation in the educational sector. This work programme sets out the objectives and priorities for the programme in a 10-year perspective, and will be revised halfway through the programme period.

To address future challenges, there is a need to enhance the quality and relevance of educational programmes and to concentrate greater attention on the interplay between the educational system and the learning and knowledge development that occurs in working life and society at large. This will require a clearer focus on research and innovation within and across the following, broadly defined thematic priority areas:

- A. Learning processes, assessment forms and learning outcomes;
- B. Praxis, professional practice and competence-development;
- C. Governance, management, organisation and achievement of results;
- D. Education, society and working life.

All of the thematic priority areas are relevant for research on and innovation in early childhood education and care, primary and lower secondary education, upper secondary education and training, higher education and adult learning. The programme is also concerned with the transitions and interplay between the various levels of the educational system and working life as well as the individual's educational pathway and competence-development.

The educational sector is extensive and complex, and involves many actors. The programme will mobilise a wide range of relevant research groups, national and local public administration, and organisations in the educational sector. The FINNUT programme will strengthen ties between strategic basic research, applied research and innovation in the field of education, serve as a national cooperative arena between actors in the field, and have a clear, international orientation. The programme will put emphasis on communication and dissemination targeted at researchers, users and the general public.

The programme has three ambitious primary objectives, and the work programme also defines seven secondary objectives. To achieve these objectives, the programme will employ coordinated, differentiated use of various instruments and forms of support. Viewed in relation to previous research programmes, the FINNUT programme will develop new instruments that can help to renew the research field, enhance the role of research in development and change processes in ECEC institutions, schools, and educational and training institutions, and facilitate knowledge development which to a greater extent is based on the knowledge needs of users.

1. Background and context

1.1 Strategic perspectives

The R&D system for the educational sector consists of many actors with diverse areas of responsibility and roles. The Ministry of Education and Research, the Research Council of Norway, the universities and university colleges, independent research institutes, the Norwegian Knowledge Centre for Education, and the Norwegian Directorate for Education and Training are key actors in this context. The Research Council's *Programme for Research and Innovation in the Educational Sector* (FINNUT) will cooperate with the other actors in the system to strengthen the knowledge base and contribute to knowledge-based development of the educational sector.

The FINNUT programme will follow up the objectives set out in Meld. St. 18 (2012–2013) *Long-term perspectives – knowledge provides opportunity*, white paper from the Ministry of Education and Research, regarding enhanced quality, more innovative thinking and renewal, greater internationalisation, and improved cooperation on the development and use of knowledge. The programme is also a vital instrument in achieving the objectives of Prop. 1 S (2013–2014) *Kvalitet og relevans 2014–2019*, the draft resolution on a strategy for educational research from the Ministry of Education and Research. The strategy addresses knowledge development about and for early childhood education and care, primary and secondary education and training, tertiary vocational education, higher education and adult learning, and expands on the strategy *Kunnskap for kvalitet 2008–2013* (“Knowledge for quality 2008–2013”). Key objectives set out in the strategy are to develop dynamic, multi-disciplinary research communities in the field, enhance the quality and relevance of research, increase the international orientation, facilitate scientific renewal, encourage well-functioning dissemination of research results, and improve collaboration between research, education, the field of practice, and innovation in the educational sector.

The FINNUT programme is a policy-oriented programme¹ that encompasses the entire educational sector from early childhood education and care and schools to higher education and adult learning. The programme will run for 10 years and has long-term objectives related to educational research and innovation in the educational sector. This includes, among other things, efforts to develop *productive, competent research communities* that can generate high-quality educational research relevant for the development of the sector in the short and long term. The programme will address knowledge needs for the individual's learning and development, the way in which the field of practice functions, and the knowledge needs of the public administration and policy formulation. Thus, the programme will apply an *interdisciplinary and multidisciplinary approach*.

The FINNUT programme will provide funding to research and innovation projects of *high quality and relevance* to users in the sector and other interested parties. The programme represents a relatively small, but nonetheless important funding source for

¹ Policy-oriented programmes are designed to develop new knowledge for the public sector in which users and researchers collaborate on developing the content of the programme.

research groups in Norway.² The FINNUT programme will facilitate national competition for funding in strategically prioritised areas and employ a variety of targeted instruments, and thus play a crucial role in the further development of the research field. This will require effective cooperation with research groups at the universities, university colleges and independent research institutes, as well as with other funders of research in the field and the Norwegian Knowledge Centre for Education.

The FINNUT programme will expand on the experience from previous programmes and promote a *new focus on innovation* in the educational sector. This focus will incorporate experience from practice-based R&D in ECEC institutions and primary and secondary education and training, and build on the Research Council's policy for innovation in the public sector. The objective is to enhance the role of research in development and change processes in ECEC institutions, schools, and educational and training institutions, and facilitate knowledge development based on the knowledge needs of users.

The Research Council defines innovation in the public sector as follows: *implementation of major changes in the way in which the organisation functions or in the products/services it delivers, including both completely new or substantially modified services/goods, work processes, organisational methods and the way in which the organisation communicates with its users. The innovation must be new for the organisation, but may be developed by others.*³

In the educational sector, for example, innovation activities could mean the development of new tools and methods for use in teaching and learning situations, new systems and models for organisation and cooperation within educational institutions, new management methods, and new forms of cooperation within and across educational institutions and parents, pupils and students.

Research may play various roles in innovation processes. In *research-based innovation*, research and research institutions play a critical role in innovation, and the research results comprise the basis for or help to enhance the quality of changes in the field of practice. In *innovation with researcher participation*, researchers contribute to innovation processes by acquiring and quality assuring external knowledge and ideas, solving problems and supporting decisions, documenting impacts and risks, disseminating knowledge, and utilising international networks and expertise to bring about change.

Both types of innovation require active, binding collaboration between researchers and users in the sector, as well as mobilisation of R&D groups, the national and local public administration, organisations in the educational sector, developers of technology, producers of teaching and learning resources, etc. Innovation under the FINNUT programme may therefore involve new research design and new methodology.

In contrast to previous Research Council programmes in the area of education, the FINNUT programme will generate added value by *strengthening ties between strategic*

² Most of the resources in the field of educational research are channelled directly to the higher education institutions (65 per cent). The next most important source of funding is the Research Council of Norway (12 per cent), followed closely by the Ministry of Education and Research and the Norwegian Directorate for Education and Training (11 per cent) (NIFU report 13/2011).

³ *Innovasjon i offentlig sektor – Policy for Forskningsrådets arbeid* (“Innovation in the Public Sector – Policy for the Research Council’s Activities”), Research Council 2012.

basic research, applied research and innovation. The programme will mobilise research groups and various users of research through strategic and varied use of different types of funding and instruments. The FINNUT programme will ensure *effective, national arenas of cooperation, have a clear, international orientation,* and maintain a high profile vis-à-vis research groups, the public administration, the users of research, trade and industry, and the general public in the field of education. Communication and dissemination will be a critical task for the programme, and the FINNUT programme will collaborate with the Norwegian Knowledge Centre for Education, the Norwegian Directorate for Education and Training, and other actors in the sector to ensure knowledge-sharing and dialogue about the research being conducted and the significance of the research results for the development of the sector.

1.2 Knowledge base and experience

1.2.1 Educational research in Norway – resources and results

As part of the national statistics on R&D, the Nordic Institute for Studies in Innovation, Research and Education (NIFU) has compiled an overview of resources and results from the field of educational research in 2007, 2009 and 2011. The reports reveal a diverse, but relatively fragmented research field that has undergone significant growth and change. Measured in terms of R&D expenditures, the volume of educational research conducted during the period increased dramatically. The number of scientific publications rose, but the percentage of publications in channels with high international prestige remained low compared with other subject areas. Recruitment to the field has been strengthened, and the number of doctoral and post-doctoral research positions and completed doctoral degrees at the institutions has increased greatly. The level of expertise among the research communities has risen. The number of employees in associate professor and senior lecturer positions has increased, while the proportion of these with doctoral degrees has increased. The reports show, however, that the field of educational research faces a number of challenges that the FINNUT programme, in cooperation with other research funders and research-performing actors, should address. These areas include:

- **Research capacity and knowledge needs:** Research activity is unevenly distributed across the various levels of the educational system. Traditionally, the most research has been conducted on primary and lower secondary schools and the least on adult learning, upper secondary education and training, and early childhood education and care – areas where the sector has a great need for knowledge. Research activity is also unevenly distributed among thematic areas. The most research is conducted on factors related to teaching and learning, followed by the relationship between education, the home, and working life. Relatively little research has been conducted on economics, organisation, management, policy and systems of governance and on the relation of these to practice.
- **The quality and international orientation of research:** Despite more international collaboration, NIFU's analysis of publication statistics shows that there is relatively little international publication and that Norwegian remains the dominant publication language in the field. The percentage of publications in channels with high international prestige remains low compared with other subject areas.
- **National collaboration and network-building:** In 2011, educational research was conducted at 170 entities in Norway. About 40 per cent of the resources were

used at entities with a small or moderate volume of educational research in their research portfolios. Roughly 60 per cent of the research activity took place at 38 entities which carried out more than 70 per cent of their research activity within the field of education. There is very little mobility and co-publication across the entities.

- **Recruitment and expertise:** Despite a higher level of expertise within the research groups, the percentage of staff who hold doctoral degrees and the percentage of employees in associate professor and professor positions is lower in these communities than among the researcher population as a whole. There is particular need to strengthen research expertise in teacher education programmes, and there is a need to increase future recruitment to the field in response to the anticipated generational shift due to retirement of academic personnel. An overview of the doctoral degrees completed in recent years also shows that greater breadth in recruitment is needed with regard to doctoral candidates' subject areas and thematic focus.

1.2.2 Experience from the Research Council's previous educational research programmes

The *Programme for Research and Innovation in the Educational Sector* (FINNUT) (2014–2023) is based on and will replace the *Programme on Practice-based Educational Research* (PRAKUT) (2010–2014) and the *Programme for Educational Research towards 2020* (UTDANNING2020) (2009–2018). The programme will take over the portfolios from the UTDANNING2020 and the PRAKUT programmes, which consist of 36 Researcher Projects and the Norwegian National Graduate School in Teacher Education (NAFOL).⁴

Like its predecessor, the *Programme for Practice-based R&D in Pre-school through Secondary Schools and Teacher Education* (PRAKSISFOU) (2006–2010), the PRAKUT programme was targeted towards practice-based research and required collaboration between teacher education programmes and owners of schools and ECEC institutions. A key objective of these two programmes has been to strengthen R&D expertise at teacher education institutions and to promote the development of more knowledge-based practice in ECEC institutions and schools. The programme board's status report⁵ shows that the programme has helped to strengthen research expertise in teacher education programmes. Practitioners in the field have also gained new experience and taken part in knowledge development in this area. However, the report shows that there is a need to further develop methods that allow users to participate in research in ways that develop and renew the field of practice. The report emphasises the need for research that measures the impact of various measures and interventions in the field of practice. It also underscores the need for innovation projects that help to develop new products, methods and processes that teachers at all levels can utilise in their professional practice.

⁴ More information about the projects and the graduate school is available on the programmes' webpages: www.forskningrådet.no/utdanning and www.forskningrådet.no/praksisfou

⁵ *Program for praksisrettet utdanningsforskning – PRAKUT. Status rapport.* ("Programme for Practice-based Educational Research – PRAKUT. Status report"). Research Council, 2013.

The UTDANNING2020 programme was a long-term initiative with a broad-based scientific/thematic focus and several structural objectives. Among other things, the programme sought to develop dynamic research groups that would make a significant contribution on the international research front, enhance the theoretical and methodological foundation of educational research, and increase research capacity in areas of great relevance to society. The programme board's midterm report⁶ shows that the programme was successful in giving a boost to under-researched areas, such as research on ECEC institutions and adult learning, but that it was perhaps not as successful in developing dynamic research communities that could make a significant contribution on the international research front. The programme has helped to strengthen educational research as a multidisciplinary research field and fostered greater diversity in the use of methods and research design. The UTDANNING2020 programme established many meeting places where educational topics were discussed and debated, but it has not been as successful with the communication, dissemination and use of knowledge vis-à-vis the field of practice.

In 2012 the Research Council appointed a Nordic evaluation panel that was charged with conducting a final evaluation of the PRAKSISFOU programme and a midterm evaluation of the UTDANNING2020 programme. The evaluation was to assess the possibility of merging the two educational research programmes at the Research Council. The background for this was that the programmes' activities had converged over time and there was considerable overlap in the thematic areas and focus of the two programmes' project portfolios. There had also been major changes in the research communities in the past 10-15 years and the reason for having two programmes on educational research was not as pressing in 2012 as in 2006.

The evaluation report⁷ concludes that the programmes have made a positive contribution to the development of the research field in Norway, but at the same time it identifies a number of challenges that the FINNUT programme will address. These involve the scientific quality of the research being conducted, the degree of interdisciplinarity, user involvement and participation in research, and the contribution of practice-based research to knowledge development and innovation. The evaluation recommends that the PRAKUT and UTDANNING2020 programmes are merged, but it also emphasises that knowledge production and innovation must be assessed on the basis of different criteria and that the interfaces between the activities must be thoroughly discussed when a new programme is established.

⁶ *Midtveisrapport for programmet UTDANNING2020. Programstyrets egenvedurdering* ("Midterm report on the UTDANNING2020 programme. An evaluation by the programme board."). Research Council, 2012.

⁷ *Evaluering av forskningsprogrammene PRAKSISFOU og UTDANNING2020* ("Evaluation of the PRAKSISFOU programme and the UTDANNING2020 programme"). Research Council, 2013.

2. Programme objectives

2.1 Primary objective

The objective of the FINNUT programme is to develop new knowledge of high quality and relevance for policy development, the public administration, the field of practice and the individual, and will promote scientific renewal in research and innovation in the educational sector.

The FINNUT programme will run for a 10-year period. An assessment of how well the programme is achieving its objectives will be conducted halfway through the programme period. The objectives and priorities set out in the work programme may be revised on the basis of this evaluation.

2.2 Secondary objectives

The programme's primary objective will be translated into action through the following secondary objectives:

Secondary objective 1 Strengthen knowledge accumulation and scientific renewal

The FINNUT programme will strengthen knowledge accumulation and scientific renewal through the following means:

- Require that all projects are based on the national and international state-of-the-art in the areas they address;
- Provide funding for efforts to review research results and document research needs;
- Promote better utilisation of the data collected in the field of education;
- Set aside funding for projects with the potential to foster scientific renewal.

Secondary objective 2 Increase expertise and capacity

The FINNUT programme will increase research competence and capacity through the following means:

- Provide funding for practice-based knowledge-building projects for the educational sector;
- Provide funding for doctoral and post-doctoral research fellowships and encourage scientific/methodological breadth in recruitment to the field;
- Provide funding for a graduate-level researcher school in the field of education;
- Prioritise projects so as to ensure a good balance between research on various educational levels and thematic areas in the long term.

Secondary objective 3 Encourage theoretical and methodological diversity

The FINNUT programme will encourage theoretical and methodological diversity through the following means:

- Ensure that the project portfolio has scientific/methodological breadth;
- Promote more interdisciplinary collaboration at the programme and project levels;
- Provide funding for research that uses several different types of data and employs a research design that is based on a variety of data sources and methodological expertise;

- Increase the volume of comparative, longitudinal, experimental/quasi-experimental studies as well as intervention and design studies;
- Promote innovative projects that help to develop models, analytical frameworks and new theoretical perspectives.

Secondary objective 4 Enhance the role of research in innovation

The FINNUT programme will enhance the role of research in innovation through the following means:

- Create a framework to ensure that research results to a greater extent form the basis for and/or are used to enhance the quality of changes in the field of practice;
- Mobilise R&D communities, the national and municipal public administration, organisations in the educational sector, developers of technology, producers of teaching and learning resources, etc. to cooperate on development and change processes in the field of practice;
- Provide funding for practice-based knowledge-building projects and innovation projects with user involvement;
- Provide funding for doctoral research fellowships in the educational sector.

Secondary objective 5 Greater national and international research collaboration

The FINNUT programme will promote greater national and international collaboration through the following means:

- Encourage national and international network-building;
- Provide funding for national and international researcher mobility;
- Promote the development of research communities in areas of strategic importance;
- Contribute to the development of research and innovation clusters in priority areas;
- Provide funding for a number of comparative studies at the Nordic and international levels;
- Contribute to the development of joint programmes and cooperative platforms in the field of education;
- Encourage Norwegian research groups to participate in international research programmes.

Secondary objective 6 Improve collaboration and dialogue with users

The FINNUT programme will improve collaboration and dialogue with users through the following means:

- Strengthen user involvement/participation in the programme and projects, and facilitate dialogue between researchers and users throughout the entire programme and project period;
- Assess how user participation can help to increase the impact of research and develop instruments that support this;
- Encourage active, binding user participation in practice-based projects such as knowledge-building projects and innovation projects.

Secondary objective 7 Strengthen communication and dissemination

The FINNUT programme will strengthen communication and dissemination through the following means:

- Require that projects incorporate specific communication and dissemination plans targeted at the research community, the users of research, and the general public;
- Require international scientific publication and participation at international research conferences;
- Strengthen user-oriented communication and dissemination vis-à-vis the profession and field of practice, and use existing channels and networks in these efforts;
- Provide support for various measures that encourage the dissemination of research results and use of knowledge within the sector;
- Participate in established arenas and create, in collaboration with others, new arenas for dialogue about educational research, research results and the significance of research for the development of the educational sector;
- Promote dissemination to the general public and contribute to the public debate on educational issues.

3. Priority research tasks

3.1 Thematic priority areas

The FINNUT programme will provide funding for research and innovation in the following four broadly defined thematic priority areas:

- A: Learning processes, assessment forms and learning outcomes;
- B. Praxis, professional practice and competence-development;
- C: Governance, management, organisation and achievement of results;
- D: Education, society and working life.

The thematic priority areas encompass the scientific breadth of the research field, and the programme invites projects from a variety of subject areas and research traditions that are concerned with educational issues. There is a need to increase the volume of research in all of the thematic priority areas, as well as to view the thematic priority areas in connection with each other and to perform analyses across the areas in order to strengthen interdisciplinary collaboration in the field. There is a particular need to view thematic priority areas A and B in relation to each other.

The FINNUT programme will seek research projects on early childhood education and care, primary and secondary education and training, higher education and adult learning within and across all of the thematic priority areas. The programme also seeks projects that shed light on the transition between the various levels of the educational system and the transition and interplay between education, society and working life. Research that explores the interplay between educational programmes and the learning and knowledge development that occurs outside of educational institutions is especially relevant in this context.

The four thematic priority areas are described briefly in the section below. The purpose is to outline the thematic priorities within respective areas which are both relevant and important for the further development of the research field, but which also allow room for creativity and new thinking.

A: Learning processes, assessment forms and learning outcomes

Throughout the entire educational system from early childhood education and care, primary and lower secondary education, upper secondary education and training, higher education and adult learning, there is great interest in how people learn and what promotes good learning and development for various individuals, groups and organisations in a range of contexts. There is a need for research and innovation that can advance knowledge and practice at all levels within the educational sector with regard to learning processes, assessment and forms of assessment, learning outcomes and knowledge development.

Relevant topics are new forms of knowledge and skills acquisition and dissemination, and how the knowledge, skills and insight acquired by children, adolescents and adults can be assessed and evaluated in a qualified manner. This involves research and innovation related to the development and use of various forms of assessment that promote learning. Other relevant topics are new methodology and exploratory teaching and learning methods, learning in and across various subject areas, participation by children and

adolescents, adapted education and special needs education. Research may also be related to how learning, the shaping of one's identity, and quality of life are affected by variations in background factors, experience, the content and quality of teaching, the psychosocial environment and socio-emotional development, and other factors.

The interplay between the individual and the learning context is subject to change, and technological and knowledge development is creating new conditions and opportunities, as well as new challenges related to learning. This affects e.g. the content of learning, the development of basic skills, new areas of knowledge, and new objectives related to competency and learning. Relevant research and innovation issues in this context are how new, relevant knowledge is created, organised and communicated with participation and involvement from relevant expertise or through the use of new media and digital technology.

Children, adolescents and adults have different ways of developing identity, competency and knowledge which is created and shared in new arenas, outside of society's established educational institutions. The programme seeks research on and innovation related to the impact of new forms of learning and knowledge development on educational institutions and the system as a whole. In this context there is a need to mobilise a significantly larger number of researchers who can contribute knowledge and experience from a variety of subject areas.

B: Praxis, professional practice and competence-development

Practice and professional practice in ECEC institutions, schools, and training and educational institutions are a crucial factor in quality. However, there is a question as to what constitutes quality and how quality in praxis, professional practice and competence-development can be enhanced. Consequently, there is a need for research and innovation that focuses on knowledge-based practice and the development of tools, systems and models that can promote knowledge-based practice.

Research and innovation related to qualifying for professional careers and competence-development, new work methods and organisational models is also needed. This may be particularly relevant in connection with challenges related to a lack of qualified personnel.

In activities related to children's, adolescents' and adults' learning and development, there is also a question as to the roles of the various professional practitioners and the field of practice and whether it is possible to promote quality in the educational sector through multi-professional collaboration.

C: Governance, management, organisation and achievement of results

Management and administration are critical in the efforts to improve performance within the educational sector. By the same token, it is not easy to translate educational policy objectives into practical action. It is therefore important to increase knowledge about what works. This means that more research is needed that generates knowledge about the interrelationship between the many reforms and changes that have taken place within governance, management and organisation – and the results at various levels within the educational system. Research also has a greater need for a broad interdisciplinary and

multidisciplinary basis which is able to identify the impact of management, organisation and administration along various dimensions.

Within the educational sector, governance and organisation are often rooted in historical tradition. At the same time, the many changes in this field have made management of the educational sector more complex. Studies are needed on the features characterising this complexity between management structures and actors in the system. There is therefore a need for research that sheds light on the consequences accountability has for the understanding of actors' roles, processes and results, objectives and forms of organisation – locally, regionally, nationally and internationally.

The fact that many forms of organisation and management in the educational sector are historically determined also opens up the possibility for new, creative thinking about how education can be organised and managed in the future. The interplay between policy, administration and profession will be a major research challenge in the future, not least with regard to exploring new forms of cooperation and organisation. The educational sector has a clear need for innovation with regard to how management of professional activities and personnel may be practiced and strengthened in the years to come and what conditions must be present so that professional management may be developed at various levels in the system. Research that increases insight into the conditions for the management of professional activities, in which the connections between formal and informal management, cultural factors and linkages to practice are explored, is relevant in this context.

D: Education, society and working life

Education is critical for promoting democracy, tolerance and equality. Education is also vital for dealing with and addressing inequality and diversity – within the educational system, working life, and society at large. In this context, access to and participation in the educational system, as well as the objectives and content of education, are crucial for societal development.

Education and expertise are crucial for value creation in society. The labour force's expertise, creativity and ability to innovate are vital for future growth and prosperity. Research should contribute more in-depth knowledge about the transitions within the educational system, as well as the transitions and relationship between the educational system and working life. There is a particular need for research that can shed light on the economic and social ramifications of drop-out from the various educational levels and that can identify critical factors that support completion of the educational cycle. Relevant factors are the choice of education, socialisation, identity, social and economic factors, and the interplay between education, working life, the home and the local community. Research is also needed on how knowledge about drop-out and completion can be used to develop practice in schools and in training and educational institutions. The potential that digital development creates for participation in formal, non-formal and informal learning cycles is another relevant area of research and innovation on the interplay between education, society and working life.

In a wider perspective it is important to focus on the role, mandate, ideas and objectives of the educational system viewed in relation to national and international change processes. For example, technological development and globalisation have a major impact on national labour markets and society's need for expertise. In this context there is

a need for more knowledge about how the educational system, including funding for education, can, should and will adapt to the fundamental changes occurring in working life, the family and society at large.

3.2 Strategic priorities

The FINNUT programme is a long-term initiative with a broad-based scientific/thematic scope and ambitious strategic objectives. To achieve these objectives, the programme will provide funding for long-term basic research involving theoretical and methodological development as well as for applied research and innovation activities.

The programme addresses a research field with varying capacity, quality and expertise and a sector with many actors. In keeping with this, the programme will follow a differentiated strategy with varied use of different funding schemes and instruments which together will support the programme's various objectives. The programme will also serve as a cooperative arena between actors in the field and seek to strengthen ties between strategic basic research, applied research and innovation in the field of education.

With regard to funding schemes, several different grant application types may be used, and the FINNUT programme board will assess which application types are the most appropriate to use for the various thematic priority areas in connection with formulation of the calls for proposals. The application types are standardised "toolboxes" at the Research Council, and the FINNUT programme will specify deviations from and additions to the application types in the calls for proposals so that the funding schemes will adequately address the knowledge needs in the field of education.

Project funding will be a key instrument, and relevant application types in this context may be Researcher Projects, Knowledge-building Projects and Innovation Projects for the Public Sector. In addition, institutional support through Research Institution-based Strategic Projects may be used for some thematic areas.

Researcher Projects are a key instrument for developing new high-quality, relevant knowledge. The FINNUT programme will provide grants for Researcher Projects that include funding for documentation of the state-of-the-art, doctoral and post-doctoral research fellowships, national and international cooperation and mobility. The programme will thereby promote the development of dynamic research groups that can make a significant contribution on the international research front and counteract fragmentation of the research field. In addition, the programme will provide funding for Researcher Projects that can stimulate renewal in the field through innovative research design that can expand the research front, project managers who recently received a their doctoral degree, etc.

Knowledge-building Projects is a new instrument that promotes practice-based researcher training and long-term competence development in Norwegian research groups within thematic areas of particular significance for the development of the field of practice and innovation in the educational sector. This instrument is not linked to any specific type of institution, but under the FINNUT programme it will be especially relevant to strengthen R&D expertise in teacher education and increase user participation in practice-based knowledge development in the field.

Innovation Projects for the Public Sector is an instrument to stimulate R&D activity in the educational sector that contributes in particular to innovation and sustainable development within the sector and among users. Funding for Innovation Projects may be sought by public entities and entities within the central government and municipalities/counties that carry out public administration and service provision in the field of education. The entities may be publicly or privately owned, but they must be approved by the authorities and comply with current regulations under the Ministry of Education and Research. It will be especially relevant under the FINNUT programme to use Innovation Projects to change and renew practice in ECEC institutions, schools, and training and educational institutions.

To improve the projects mentioned above, it may be beneficial to issue funding announcements for separate Pre-projects. *Pre-projects* are especially useful in areas with weak capacity and a need to establish cooperation/networks that can develop a grant application for a main project. Similarly, *Project Establishment Support* may be useful for developing grant applications that will be submitted to various international joint programmes. Funding for positioning Norwegian educational research in an international cooperative arena may be also relevant.

To strengthen cooperation between research groups in Norway and to develop research and innovation clusters in the field of education, for example, the FINNUT programme may also issue funding announcements for various *networking functions*.

In addition to project funding, the programme may provide institutional support through *Research Institution-based Strategic Projects*. Such projects must be in keeping with the strategies laid down by the administration of the applicant institution. This application type is a suitable instrument for use in enhancing research groups. This form of support is intended to help research groups to maintain a high level of quality within their spheres of responsibility or develop new research groups of strategic importance through basic research, applied research and competence-building.

To increase international mobility, funding for *Personal Overseas Research Grants* and *Personal Visiting Researcher Grants* will also be provided. It will be beneficial to integrate such grants into Researcher Projects, as this will strengthen network-building and cooperative relations internationally and ensure affiliation with a larger R&D community in Norway. Similarly, *doctoral and post-doctoral research fellowships* will primarily be funded as an integral part of Researcher Projects and Knowledge-building Projects under the programme. Funding for *graduate-level researcher schools* will also be a relevant instrument for strengthening researcher education in strategically important areas and foster network-building at the national level. As part of the programme's initiative on innovation, a funding announcement for *public-sector doctoral research fellowships under the FINNUT programme* may also be issued.

The programme will also announce funding for *Support for Events* in order to give research groups a better opportunity to organise regional, national and international conferences, workshops and seminars on educational issues. This may include events targeted towards the research community and/or events directed at users of research in the sector.

4. International collaboration

All programmes under the Research Council are required to have specific objectives and plans for international cooperation. The purpose of international cooperation is to enhance quality and capacity in Norwegian research, and Norwegian researchers will both benefit from and contribute to international knowledge-sharing. International cooperation is especially vital for conducting high-quality, comparative research that can generate new, important insights. Norwegian research must also aim to attract the most talented researchers and participate on the international research front in selected areas.

Internationalisation is a cross-cutting objective in the white paper on research, and it is one of five main objectives for enhancing the internationalisation of Norwegian research in the Research Council's International Strategy (2010-2020). In general, the policy-oriented programmes in the area of social research incorporate relatively little international cooperation. The evaluation of the PRAKSISFOU programme and the UTDANNING2020 programme also noted that Norwegian educational research has a distinctive national character and that greater focus on internationalisation is needed.

At the European level, the EU Framework Programme for Research and Innovation, Horizon 2020, is a key instrument in the internationalisation of Norwegian research. In particular, the sub-programme "Europe in a changing world – inclusive, innovative and reflective societies" will issue calls for proposals on topics of relevance for the FINNUT programme. In this sub-programme, knowledge, education, learning and training are viewed in connection with topics such as the labour market, demographic changes and migration. Horizon 2020 will also explore new forms of innovation, and a platform for dialogue about the use of ICT to improve learning processes will be established.

In addition, more and more European research cooperation at the programme level is occurring through platforms such as the ERA-Net scheme and the Joint Programming Initiatives (JPI). For example, a JPI entitled "More Years, Better Lives" has been established which explores the ramifications of the anticipated ageing of the European population. The topic of lifelong learning is addressed under this programme.

At the Nordic level, NordForsk, in cooperation with the Nordic Council of Ministers and the Nordic research councils, has established a joint programme entitled "Education for Tomorrow". The objective is to strengthen the position of the Nordic countries in the field of educational research and provide funding for comparative projects in areas that are highly relevant for policy development. The programme provides funding for a number of projects and a Nordic Centre of Excellence. Norwegian research groups participate in all projects under the programme and play a key role in the Nordic Centre of Excellence in the field of education.

The thematic priority areas under the FINNUT programme share a certain degree of interface with the thematic priorities under the European and Nordic initiatives mentioned above. National programmes often serve as qualification arenas for participation in larger international projects, and the FINNUT programme will ensure there is effective cooperation between the national and international initiatives through a coordinated plan for calls for proposals.

To strengthen international cooperation in the field of education research, the FINNUT programme will:

- Provide input on the future formation of relevant sub-programmes under Horizon 2020, as well as on joint Nordic and other European programmes;
- Encourage Norwegian educational researchers to seek research funding from the EU Framework Programme, the European Research Council and other joint European and Nordic programmes;
- Coordinate calls for proposals and facilitate beneficial interaction between national and international initiatives;
- Promote the development of dynamic research groups/networks that can make a contribution on the international research front;
- Put emphasis on international cooperation in research projects, e.g. in the form of international partners and project participants, co-publication, research stays abroad and visiting international researchers;
- Facilitate more comparative studies at the international and Nordic levels;
- Document international patterns of cooperation in the field in Norway and consider establishing strategic, bilateral or multilateral programme cooperation.

5. Communication and dissemination activities

The FINNUT programme will think along bold new lines about communication and dissemination, and be a driving force in the effort to bring attention to the findings and results from research conducted under the programme. The programme aims to ensure that relevant target groups are provided with information about the research activity throughout the programme period and create a framework to ensure the research results are utilised. Responsibility for these efforts will be shared between the projects funded under the programme, the programme board and the Research Council administration, and be carried out in cooperation with the Norwegian Knowledge Centre for Education and other actors within the R&D system.

Communication and dissemination in the projects:

All projects must have separate plans for communication and dissemination that describe the target groups and activities. The projects' plans must include communication and dissemination activities that are directed at the research community, the users and the general public. It is important that the projects have a targeted plan for these activities and that the activities are adapted to the project's objectives and target groups. National and international scientific publication and popular scientific dissemination are required. The projects should use established dissemination channels and arenas for dissemination of research results. At the same time, the projects are encouraged to think along new lines with regard to dissemination channels and arenas, and to integrate communication and dissemination activities with other activities throughout the entire project period.

Communication and dissemination under the auspices of the programme:

The FINNUT programme will ensure that research funded under the programme is made known to the target groups. The programme will support the projects' communication and dissemination efforts and help to establish activities and meeting places where research findings, results and new research questions can be shared and discussed across projects and different target groups. The programme will cooperate with other actors and participate in established arenas where research is of special interest. The programme will also seek out networks where knowledge about the sector is addressed. The FINNUT programme will develop annual plans for communication and dissemination activities under the programme that describe and take responsibility for these activities, adapted to the various phases of the programme. It is expected that all projects funded under the programme contribute to the activities and measures carried out under the auspices of the programme.

The programme's target groups:

The communication and dissemination activities under the programme will be oriented towards the target groups. Researcher-oriented dissemination in the form of articles in national and international journals will be the most important form of scientific publication. This will be the responsibility of the projects. For the researchers, the programme's objectives related to renewal, greater interdisciplinarity, theoretical and methodological development and internationalisation will serve as guiding principles in the communication and knowledge-sharing activities.

Researcher-oriented target groups include the following:

- Project managers and researchers who take part in the programme's research projects;

- International experts in the field;
- Norwegian and international researchers who study educational issues;
- Strategic units related to educational research under the Norwegian Association of Higher Education Institutions;
- Nordic, European and international researcher networks/associations;
- Research programmes in relevant partner countries, joint international programmes and the EU Framework Programme for Research and Innovation.

User-oriented communication and dissemination targeted towards the authorities and professional practitioners in the sector is critical under the FINNUT programme. The programme will focus on activities and measures, and establish ties to key actors for cooperation and targeted measures. The Norwegian Knowledge Centre for Education will be a partner in these efforts. The point of departure will be the thematic profile of the programme's project portfolio and the knowledge needs in the educational sector. This includes the knowledge needs identified in public reports, government white papers and key policy documents at the central and local levels.

User-oriented target groups include the following:

- Ministry of Education and Research;
- Norwegian Directorate for Education and Training and national centres;
- Norwegian Agency for Lifelong Learning;
- Municipalities/counties;
- Owners of ECEC institutions and schools;
- Professional practitioners;
- Norwegian Association of Local and Regional Authorities;
- Trade unions;
- Advisory Committee on Vocational Training.

The general public has tremendous interest in educational issues, and the programme will consider using the mass media as a dissemination channel on an ongoing basis. Public-oriented dissemination will be important for putting educational research on the agenda and contributing to the debate on education policy.

6. Budget

The budget for the programme period 2014–2023 is estimated at roughly NOK 700 million, contingent on the final budget framework established by the Storting. The programme will prepare a plan for funding announcements that takes into account other national or international calls for proposals that overlap with or share an interface with subject areas, research capacity, research needs and the sector's potential and ability to participate in the projects. The programme is funded by the Ministry of Education and Research.

7. Coordination with other related programmes and instruments at the Research Council

Education and competence-building are significant for many sectors of society and branches of industry, and as such the programme shares an interface with a number of programmes and activities under the Research Council. The Norwegian Knowledge Centre for Education, the national graduate-level researcher schools in the field of education – i.e. the National Graduate School in Education Research (NATED) and the Norwegian National Graduate School in Teacher Education (NAFOL) – and strategic instruments targeted towards university colleges, such as the *Strategic Projects – University Colleges* (SHP) scheme, are key partners.

In addition, the *Programme on Welfare, Working Life and Migration* (VAM) (2009–2018) holds a special position in this regard. The VAM programme addresses challenges related to the economic and social sustainability of the Norwegian welfare state, and provides funding for projects on a wide range of thematic areas. This includes conditions for bringing up children and adolescents, social inequality and inclusion, and value creation, the labour market and the organisation of working life. Furthermore, *Funding for Independent Projects in Social Science* (FRISAM) is a related instrument for quality enhancement and scientific renewal of research in the field. Like the VAM programme, the FRISAM scheme provides funding to a few projects in the field of education.

Other relevant programmes are:

- The FORFI initiative (*Kunnskapsgrunnlaget for forsknings- og innovasjonspolitikken*), which seeks to improve the knowledge base for research and innovation policy;
- The *Programme on Democracy and Governance in Regional Context* (DEMOSREG), which provides funding for research on the governance and organisation of welfare services and value creation at the local and regional levels;
- The *Europe in Transition* (EUROPA) initiative, which provides funding for research on change processes in Europe's and Norway's relationship to them.

Other relevant research programmes include the *Programme on Public Health* (FOLKEHELSE), the *Programme on Mental Health* (PSYKISKHELSE) and the *Programme on Sickness Absence, Work and Health* (SYKEFRAVAER).

The FINNUT programme is part of the Research Council's priority focus area *Healthy and active for many years*. This long-term initiative was established because the proportion of elderly in the population is increasing and there is a need for knowledge about productivity and expertise in the health and welfare sector and about how the labour force generally in society can be strengthened.

The Research Council's Arctic and Northern Areas (NORD) initiative is also relevant for educational research, and funding is provided for research and innovation in the field of education through the regional innovation and research agencies and the regional research funds.


8. Organisation

The overall responsibility for the programme lies with the Research Board of the Division for Society and Health, which has established the programme's mandate and appointed the FINNUT *programme board*. The programme is headed by the programme board, which acts on behalf of the Research Council. The programme board is charged with ensuring that the programme meets its designated objective and is implemented as optimally as possible in accordance with the stipulated plans and within the parameters approved by the division research board. The programme board's tasks are primarily strategic in nature. The programme is organised under and reports to the Research Board via the department director and the executive director of the division. The Research Council administration is responsible for the day-to-activities of the programme.

The programme board has been appointed from 1 August 2013 to 31 December 2017, and consists of the following members:

- Elaine Munthe (chair), Dean, University of Stavanger
- Bjørn Stansaker, Professor, University of Oslo
- Rita Asplund, Research Director, Research Institute of the Finnish Economy
- Terje Ogden, Research Director, Norwegian Center for Child Behavioral Development
- Åsa Mäkitalo, Professor, University of Gothenburg
- Morten Rosenkvist, Deputy Director General, Ministry of Education and Research
- Jan Sivert Jøsendal, Head of Department, Norwegian Association of Local and Regional Authorities
- Torbjørn Ryssevik, Head of Department (deputy), Union of Education Norway
- Hilde Sollid, Professor (deputy), University of Tromsø

Additionally, a resource group on adult learning has been appointed for the programme from 1 September 2012 to 31 December 2014. The resource group serves in an advisory capacity vis-à-vis the programme board and, among other things, provides input to the programme board on scientific/strategic priorities in the area of adult learning. The group also contributes to dialogue between research groups and users in the field.



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