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RESEARCH PROGRAMME ON LIFE AS LEARNING (LEARN) 2002–2006



Evaluation Report



ACADEMY OF FINLAND
RESEARCH FUNDING AND EXPERTISE

RESEARCH PROGRAMME
ON LIFE AS LEARNING
(LEARN) 2002–2006

Evaluation Report

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CONTENTS

1 The LEARN Programme	9
1.1 Introduction	9
1.2 The evaluation procedure	11
2 Evaluation of the Programme	12
2.1 Preparation of the programme and the planning of programme content	12
2.2 Research projects funded and funding decisions in relation to the preconditions for the programme	12
2.3 Scientific quality and outcomes.....	13
2.4 Impact of the programme (including stakeholders and practitioners)	13
2.5 Success of the implementation of the programme objectives.....	14
Objective 1: Creation of interdisciplinary and international research projects around the problems of learning	14
Objective 2: Finding ways of managing the challenges of lifelong learning	17
Objective 3: Creating a research base for developing teaching and learning in different educational and working life conditions	20
Objective 4: Anticipating future needs of society, culture, and individuals	22
2.6 Success of the coordination and outcomes in relation to available resources....	23
2.7 Added value created by the programme	24
3 Conclusions and Recommendations for the Future	25
Annex 1 List of Research Projects and their Funding.....	27
Annex 2 Appointment letter of the Evaluation Panel	30

Description

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Author(s)	Miriam Zukas, Patrick Dillon, Seija Kulkki, Elsbeth Stern		
Title	Research Programme on Life as Learning (LEARN) 2002–2006, Evaluation Report.		
Abstract	<p>The Board of the Academy of Finland decided on 6 November 2001 to launch a multidisciplinary research programme entitled “Life as Learning” (LEARN) in 2002. The objectives of the research programme were 1) to encourage the development of a new research culture and the creation of interdisciplinary and international research projects around the problems of learning; 2) to find a way of managing the challenges of lifelong learning in order to avoid a new kind of exclusion; 3) to create a solid quality interdisciplinary research base for developing teaching and learning in different educational and workinglife contexts; and 4) to anticipate future needs from the point of view of society, culture and individuals.</p> <p>The Academy of Finland allocated 5.1 million euros to fund the programme. The other funding bodies for the programme were the Finnish Funding Agency for Technology and Innovation Tekes, the Finnish Work Environment Fund, the National Board of Education, and the Ministry of Education. Funding was granted to 23 research projects, eleven of which were involved in research consortia.</p> <p>After the completion of the LEARN programme, an evaluation panel of six international experts assessed its success. The panel was asked to assess the programme as a whole, placing a particular focus on the scientific quality of the programme’s results, its impact, its success in implementing the objectives set in the Programme Memorandum, the success of programme coordination, as well as the added value from implementing a cohesive programme rather than a group of individual projects. The report at hand presents the results of the panel’s evaluation. Particular attention is given to the programme’s success in meeting the ambitious objectives set for it.</p> <p>The panel concluded that both the programme and most of its individual projects were ambitious and innovative. However, one overarching theoretical theme for the whole programme might have improved its cohesion. On the project level, as the majority of the projects were made up of scientifically sound sub-projects, the methodological and conceptual relationships between the sub-projects could have been further developed in many cases. In the future, such development could be enhanced by balancing the allocation of resources between doctoral students and senior researchers differently. Nevertheless, the panel noted that one of the impacts of the programme on the academic community was that a large number of researchers were trained in the programme’s field of study. The panel found the programme coordination successful, although the scarce funding for coordination meant that not all the benefits of the very ambitious programme were reaped.</p>		
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Tiivistelmä	<p>Suomen Akatemian hallitus päätti 6. marraskuussa 2001 käynnistää vuonna 2002 monitieteisen Life as Learning (LEARN) tutkimusohjelman. Tutkimusohjelman tavoitteena oli 1) rohkaista uudenlaista tutkimuskulttuuria ja tieteidenvälisen kansainvälisten projektien syntymistä oppimiseen liittyvien kysymysten ympärille; 2) löytää uusia keinoja elinikäisen oppimisen hallintaan ja syrjäytymisen ehkäisemiseen; 3) luoda vahva, laadukkaaseen tieteidenväliseen tutkimukseen pohjautuva tietoperusta oppimisympäristöjen kehittämiseksi; ja 4) ennakoida tulevaisuuden oppimisen haasteita yhteiskunnan, kulttuurin ja yksilön näkökulmasta.</p> <p>Suomen Akatemia suuntasi tutkimusohjelman rahoitukseen 5,1 miljoonaa euroa. Akatemian ohella ohjelmaa rahoittivat Tekes, Työsuojelurahasto, Opetushallitus ja Opetusministeriö. Rahoitusta myönnettiin 23 tutkimushankkeelle, josta 11 kuului laajempaan tutkimuskonsortioon.</p> <p>Tutkimusohjelman päätyttyä kuudesta asiantuntijasta koostuva kansainvälinen arviointipaneeli arvioi ohjelman onnistumisen. Paneelia pyydettiin arvioimaan ohjelmaa kokonaisuutena painottaen erityisesti sen tulosten tieteellistä laatua ja vaikuttavuutta, ohjelmamuistiossa asetettujen tavoitteiden toteutumista, koordinaation onnistumista sekä tutkimusohjelman tutkimukselle tuottamaa lisäarvoa. Tämä julkaisu sisältää arviointipaneelin raportin. Huomiota on kiinnitetty erityisesti siihen, onnistuttiinko korkealle asetettujen tavoitteiden toteuttamisessa.</p> <p>Paneeli totesi sekä tutkimusohjelman että siihen kuuluneiden yksittäisten projektien olleen kunnianhimoisia ja innovatiivisia. Koko ohjelman kattava teoreettinen tema olisi kuitenkin yhtenäistänyt ohjelmaa. Myös projektien sisällä olisi voinut kehittää projekteihin kuuluvien, sinänsä korkeatasoisten yksittäisten tutkimusten välisiä metodologisia ja käsitteellisiä yhteyksiä. Jatkossa tätä tavoitetta voisi tukea suuntaamalla eri suhteessa jatko-opiskelijoille ja kokeneemmille tutkijoille tarkoitettua rahoitusta. Toisaalta paneeli piti kuitenkin myös uusien tutkijoiden kouluttamista oppimisen tutkimuksen alalle yhtenä ohjelman vaikutuksista akateemiselle yhteisölle. Ohjelman koordinaatio onnistui hyvin, joskin koordinaatioon varatusta niukasta rahoituksesta johtuen kaikkia kunnianhimoisen tutkimusohjelman tuottamia etuja ei pystytty hyödyntämään.</p>		
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I THE LEARN PROGRAMME

1.1 Introduction

Background

The Research Council for Culture and Society of the Academy of Finland launched a multidisciplinary research programme *Life as Learning* in 2002. *Life as Learning* was a ground-breaking enterprise in a number of ways. Its five thematic areas brought together researchers from numerous fields of study. In its funding and administrative schemes it was unique as well. The initiative for the programme came from various sectors of Finnish society that represent a wide variety of research needs and interests in the field of learning. The programme was funded and supervised by the Academy of Finland, the Finnish Funding Agency for Technology and Innovation Tekes, the Finnish Work Environment Fund, the National Board of Education and the Ministry of Education. *Life as Learning* benefited greatly from the practices and expertise of these organisations. Moreover, it was the first Finnish national research programme in which researchers from other countries were eligible to participate directly.

As stated in the *Life as Learning* programme memorandum, the aims of the research programme were the following: to encourage the development of a new research culture and new research partnerships and the creation of interdisciplinary and international research projects around the problems of learning; to find a way of managing the challenges of lifelong learning in order to avoid a new kind of exclusion; to create a solid quality interdisciplinary research base for developing teaching and learning in different educational and working-life contexts; and to anticipate future needs from the point of view of society, culture and the individual.

During the early 2000s, the concept of learning underwent considerable changes along with the rapid and often unpredictable changes in the global community. Therefore there was a need to redetermine the new learning requirements and to discover ways of promoting quality learning in education systems, working life and non-institutional learning environments. As attention shifted from teaching to learning, more knowledge was needed about the principles of lifelong and life-wide learning in institutions and on the internet, at workplaces and in homes. According to the programme memorandum, research efforts were focused on five themes. First, there was a need to redefine the concept of learning. More specifically, questions such as the concept of learning in formal contexts, e.g. in kindergartens, schools, colleges and universities, arose. Along with the emergence of virtual contexts, the concept of learning itself also came into question. The second research theme was the social and cultural context of learning. This was important for at least three reasons: learning processes other than those of the curriculum were taking place in learning institutions; learning environments outside formal education contexts had become a focal question in educational policy; and, thanks to the rapid development of information technology, it was even possible to speak of a new learning society, affecting all people. A third research theme was knowledge creation. As the life cycle

of specific skills had shortened considerably, the challenges for both the formal education system and for informal education had risen. Since there was not enough research on knowledge creation in educational and working-life environments during the programme preparation, the fourth research theme was the study of these environments. Finally, the concept of teachership formed the fifth research theme.

Preparation and organisation

In January 2000, the Research Council for Culture and Society appointed a preparatory group for organising an exploratory workshop for a research programme on learning. The group was also expected to provide a written background for the programme as well as to define its aims and practical delineations. The preparatory group was steered by Professor Hannele Niemi and its members were Professor Erno Lehtinen, Professor Maijaliisa Rauste-von Wright, Adjunct Professor Outi Cáven, Professor Jussi T. Koski, Professor Pekka Ruohotie and Professor Ari Antikainen. Scientific Secretary Eili Ervelä-Myréén acted as an administrative secretary for the group. The exploratory workshop was held in the premises of the Academy of Finland on 8 June 2000 with over 50 researchers and science administrators attending. The Board of the Academy of Finland decided on 6 November 2001 to launch a research programme entitled *Life as Learning* and allocated 5.1 million Euros for 2002–2006 from the Academy's 2002 budget. The programme was implemented by a programme director and a coordinator. Through an open call with the deadline of 17 December 2001, Professor Hannele Niemi was appointed as the programme director and MA Raija Latva-Karjanmaa as the coordinator. The programme memorandum and the preparations for the call were finalised thereafter.

Selection and funding of projects

For the project selection phase, a steering group was appointed for the programme. Its members were Professor Erno Lehtinen (Chair), Professor Liisi Huhtala and Professor Krista Varantola, all from the Research Council for Culture and Society. Co-funding organisations were represented by Ms Liisa Huovinen (Ministry of Education), Mr Petri Pohjonen (National Board of Education), Ms Riitta-Liisa Lappeteläinen (Finnish Work Environment Fund), and Mr Jari Rähä and Mr Marko Heikkinen (Tekes). The deadline for outline proposals was 31 January 2002. From the 106 outline proposals submitted, the Steering Group selected 58 applications for the full proposal stage. To support its decision, the Steering Group had asked Professor Charles Desforges from the University of Exeter to provide an independent evaluation of each outline proposal. The full proposals were evaluated in June 2002 by two international panels of experts. Based on this scientific evaluation, the Research Council for Culture and Society made the funding decisions on 13 September 2002. A total of 23 projects were funded by the Academy of Finland.¹ Of these projects, eleven were part of research consortia. It was considered vital among the funding organisations to generate high-quality and comprehensive research projects as well as application-driven projects and project collaboration. To support this aim, co-funding organisations made their own funding decisions according to their own funding priorities.

¹ A list of funded projects within the *Life as Learning* research programme is available in Annex 1.

1.2 The evaluation procedure

From the beginning of the programme it was clear that the programme's success in meeting its objectives would be evaluated after the end of the programme. In November 2007, President Markku Mattila and Vice President (Research) Riitta Mustonen of the Academy of Finland appointed a panel to conduct the evaluation (see Annex 2). The panel was chaired by Professor Henning Johansson (University of Jönköping) and its other members were Professor Patrick Dillon (University of Exeter), Professor Michael Eraut (University of Sussex), Professor Seija Kulkki (Helsinki School of Economics), Professor Elsbeth Stern (Max Planck University) and Professor Miriam Zukas (University of Leeds).

The evaluation was planned by the Steering Group. The panel was asked to evaluate the following:

- 1) The planning of the research programme
 - Preparation of the programme and planning of the programme content
 - Research projects funded and funding decisions creating the necessary preconditions for the programme, and
- 2) The research and the outcomes of the research programme
 - Scientific quality and outcomes
 - Success in the implementation of the objectives set for the programme
 - Added value created by the programme
 - The success of the coordination and the outcomes in relation to available resources.

In addition, the panel was asked to present recommendations for the planning and implementation of future research programmes.

The evaluation panel received the documentation produced on the programme, reports of each project and self-evaluations by the projects. The panel met for two days at the Academy of Finland in May 2008 when interview sessions with representatives of thirteen projects of the programme took place (all projects were invited to attend, but some chose not to). The panel also had discussions with the programme director and the coordinator.

2 EVALUATION OF THE PROGRAMME

2.1 Preparation of the programme and the planning of the programme content

The scope of the programme which was published within the call in 2001 for projects to start in 2002 was ambitious, wide-ranging and experimental in its approach. Because the content of the call highlighted a wide variety of contexts and processes for lifelong learning, it included a multitude of issues which did not necessarily relate to each other practically, but could do theoretically. *Life as Learning* recognized that the number of sites and focuses for learning are infinite, as are the ways of researching such learning. However, this broad ambition was somewhat constrained because of the nature of funding: it was expected that at least a few projects would be concerned with technology, work and school teachers because funding was obtained from partners who wished to see work in these areas.

The five research themes as outlined in the 2001 call range from the conceptual to the practical application of research findings, and from empirically-based research to evaluations of interventions. Given that one of the themes was over-arching (*Redefining the concept of learning*), it might have improved the preparation of the programme to require all applicants to address this theme. This might have helped later in providing a common platform for projects to interact as a whole for the programme, particularly given the ambition for the programme to be multi- and inter-disciplinary. It may also have strengthened individual projects by enabling participants to draw on theoretical ideas outside their normal research context. Furthermore, it would have enhanced the contribution of those projects part-funded by other organisations to make a contribution both to those organizations and to the overall aims of the *Life as Learning* programme.

2.2 Research projects funded and funding decisions in relation to the preconditions for the programme

With the exception of one or two projects, those projects which were funded were ambitious, innovative and demonstrated good leadership. The funding decision process was therefore judged to be appropriate. The requirements to contribute at programme as well as project level through media such as seminars, conferences and the *Learn Periodical* publication were built into the preconditions for funding.

The different funding bodies required different kinds of outputs from the different research projects individually and the programme as a whole: sometimes these were application-driven, whilst at other times they were more concerned with changing professionals' practice or other forms of knowledge 'transfer'. Sometimes this led to incompatibility between projects.

This meant that the coordinators of the programme faced some difficult issues. On the one hand, they were expected to bring together very different interests, approaches and research interventions, whilst on the other they were expected to 'add value' by providing over-arching findings for the whole programme to broadcast to stakeholders.

2.3 Scientific quality and outcomes

Overall, the scientific quality in terms of conceptualisation, methodology and the conduct of research was good: most sub-projects were developed as PhDs and were focused, scientifically justifiable and methodologically sound. However, within individual projects, the conceptual and methodological relationships between sub-projects constituting that project were not always explicated and developed. The evaluation panel understood this to be the senior researcher(s)' responsibility, and the extent to which this happened varied across the programme. In the best cases, the senior researcher was able to provide a meta-narrative which added value to the individual sub-projects constituting a project, and to the overall programme. In such cases, even if one sub-project was weaker scientifically than the others, this overview made the most of the research conducted. When the funded project (and sub-projects) was linked to other research projects in the same organization, the scientific quality was noticeably enhanced.

This variability in quality determined the value of the scientific outcomes. When sub-projects were held together with a strong 'story', their outcomes had value well beyond the rather limited focus of individual sub-projects. However, where constituent studies were only loosely held together by the veneer of a common research question, the outcomes were more modest. The occasional sub-project was also more of an intervention than a research study and the ambition to generate scientific outcomes in these cases was limited.

The reliance on case study as one of the main research tools in this extensive programme may have restricted the scientific outcomes overall, because such case studies do not always lead to theory-building. A broader range of approaches in any future programmes should be encouraged. However, this is likely to require the movement of funding away from doctoral student support to senior researcher support. The evaluation panel believes that this is necessary if more ambitious and ground-breaking work is to be done.

One specific issue facing the panel in making judgments about the scientific outcomes was the fact that many of the publications were in Finnish. Whilst this was an important aspect of dissemination, the panel regretted being unable to engage with some specific projects. In the best cases, results were reported in more than one place and more than one language, recognizing the need to address multiple audiences.

2.4 Impact of the programme including for stakeholders and practitioners

Some of the sub-projects within the programme involved practitioners and/or organisations (both work and education) in some kind of action research or intervention. In the best of these cases, there was clear impact at a local level: participants were able to benefit from changes such as work processes, training or team development introduced and pursued through the research. One or two projects aimed to influence practice more generally but since these interventions have not yet been evaluated, it is difficult to judge their impact.

Many new researchers in the field have been trained as a result of the programme, and this might be interpreted as the development of a new generation of workers within the discipline of education, an important impact within any academic field.

2.5 Success of the implementation of the programme objectives

Objective 1: Creation of interdisciplinary and international research projects around the projects of learning

Life as Learning is described in the *Programme Memorandum* as “a broad multidisciplinary research programme”. Good research, it is explained “takes a multidisciplinary perspective on its subject, and in this respect new openings are more than welcome.” However, nowhere is it explained what is meant by multidisciplinary. Moreover, the terms interdisciplinary and multidisciplinary seem to be used interchangeably. However, the published aims of the *Life as Learning* research programme are more specific:

- To encourage the development of a new research culture and new research partnerships and the creation of interdisciplinary and international research projects around the problems of learning.
- To create a solid quality interdisciplinary research base for developing teaching and learning in different educational and working-life contexts.

It should be noted that in a separate development during the lifetime of the *Life as Learning* programme, the Academy sought to establish some clarity in use of the terms inter-, multi- and trans-disciplinarity along with an assessment of the extent to which each was represented in its research programmes. In 2004 it commissioned a study to investigate to what extent and how the Academy had promoted interdisciplinary research in its Annual Research Grants 1997, 2000 and 2004; and to recommend how the Academy could improve its capabilities in fostering interdisciplinary research. The report (Publications of the Academy of Finland 8/05, hereafter referred to as *Promoting Interdisciplinary Research*) was published in 2005.

According to the *Coordinators' Report*, the projects within the *Life as Learning* Programme represent a wide range of disciplines: education, psychology, sociology, technology, engineering, neurology and economics. The programme also covered “a large variety of contexts of human learning in educational institutions and working life as well as non-formal learning settings and virtual learning environments.” This range and variety necessarily involved connecting researchers in different universities and, in some cases, with partners in the business sector. The international networks and collaboration were generally strong.

The programme coordinators sought to strengthen cooperation between different disciplines and partners “to increase cohesiveness and mutual interaction” by organising joint meetings, conferences, social events, joint article and book writing and “cross-over projects” (*Coordinators' Report*). Later in the report, however, it is acknowledged that more emphasis at the proposal stage could have been put on “joint activities”, implying that some researchers failed to take these activities seriously enough, a view reinforced during the interviews carried out by the programme evaluators.

An important outcome of the programme was the ‘Cross-disciplinary Initiative for Collaborative Efforts of Research on Learning Network’ (CICERO), established in 2005. CICERO seeks innovations and synergies between university research communities, businesses and industry in the core areas of learning and the brain; learning throughout life and in different contexts; technologies of learning; and learning and society (*Coordinators' Report*).

International cooperation was signalled in the *Coordinators' Report* as a success. There were international initiatives at the programme level: e.g. LEARNINGSPACE, whose objective was 'to intensify European cooperation in learning research; and cooperation with the Stanford University Center for Innovations in Learning (SCIL), University of California, Santa Barbara and the British Teaching and Learning Research Programme (TLRP).

A number of joint publications were produced at programme level, of which *Crossing Boundaries in Working Life* is the most obviously cross-disciplinary.

Two of the programme conferences were devoted to 'multidisciplinary approaches to learning'. These conferences attracted many international delegates from 15 different countries including representatives of some national research programmes in other European countries (*Coordinator's Report*) but the multidisciplinary approaches and their applications are not reported.

In our interviews with project personnel, we sought more detail and greater clarity about inter- and multidisciplinary outcomes of the programme. Although *Promoting Interdisciplinary Research* was published towards the end of the *Life as Learning* programme, and was not specifically linked with it, the distinction it makes between multi- and interdisciplinarity are useful for the current evaluation:

- Multidisciplinarity is seen as the juxtaposition of disciplinary and/or professional perspectives which add breadth through making good use of available knowledge and methods. But this happens through 'separate voices', they are not 'interrogating the status quo'.
- Interdisciplinarity is concerned with the integration of separate disciplinary data, concepts, tools, methods and theories in order to generate a common understanding of a complex issue, question or problem.

This is a useful distinction, and it helped with establishing some criteria for the current evaluation. Project personnel were asked specifically how their projects had contributed to inter- and multidisciplinary understandings of the research questions they investigated. As with other aspects of the evaluation, it is difficult to get an accurate overview of inter- and multidisciplinary outcomes of the programme because some projects did not send representatives to the interview days and some others sent junior personnel. Several project personnel, including some directors, struggled with the question. Many gave answers that revealed a superficial understanding of *multidisciplinarity*, of projects working across a number of disciplinary areas, but with little explanation of how the perspectives of the individual disciplines contributed to wider understandings. Few people gave answers that engaged with *interdisciplinarity*. The most comprehensive and sophisticated answer came from a PhD candidate standing in for the director of her project who not only distinguished between inter- and multidisciplinary activities in the project, but also gave a competent summary of some of the theory of disciplinary boundary crossings.

Promoting Interdisciplinary Research makes the point that:

"Many new forms of dialogue between disciplines do not necessarily appear on conventional organisation charts or knowledge taxonomies. Yet they are vital sites of interdisciplinary research and education... Moreover, interdisciplinary structures are no longer isolated or discrete. They may be connected in a shifting matrix replete with feedback loops and unpredictable synergistic relationships."

Among the examples of this ‘shifting matrix’ given in *Promoting Interdisciplinary Research*, the following are likely to be relevant to *Life as Learning*:

- Problem-focused research projects.
- Shared facilities, databases and instrumentation.
- Sub-disciplinary boundary crossing.
- Educational functions of centres and institutes.
- Learning communities of faculties and students.
- Training in collaborative modes and teamwork.
- Inter-institutional consortia and alliances.

These ways of working have, to varying degrees, some or all of the following characteristics:

- Joint definitions of a project, its questions, goals, organisational structures.
- Shared vocabulary, hybrid inter-language.
- Linkages and networks.
- Community interdependence.
- Integrative frameworks and constructs based on progressive sharing of empirical and theoretical work.
- Ways of validating mutual relatedness of materials, methods etc.

(Promoting Interdisciplinary Research)

These two lists represent important indicators of interdisciplinary work. They have been used as a basis for evaluating the transcripts of interviews with project personnel, together with an examination of the extended abstracts submitted at the conclusion of the projects and other project documentation available to the evaluators.

Undoubtedly, the high degree of international and national cooperation in the programme generally has contributed to interdisciplinary thinking and practice even if specific outcomes are not mentioned. Many projects simply gave lists of who they had collaborated with rather than explaining what the collaboration had achieved. Many new cross-sectoral and cross-institutional linkages and networks have been established. Some of these were transitory, others more enduring.

Similarly, some projects, by their nature, lent themselves more to inter- and multidisciplinary approaches, but the gains were implicit rather than explicit. It is important to know *how* projects were successful in inter- and multidisciplinary terms.

There is good evidence of attempts to address the inter-related challenges of working with different vocabularies and disciplinary languages, of moving data, ideas and concepts between disciplines, and of building integrating frameworks.

The *Coordinators’ Report* identifies the following as strengths in its pursuit of “multidisciplinary approaches and cross-boundary cooperation”:

- Different generations of learners, and their different conceptions of knowledge and learning, and the “simultaneous and contradictory processes of individualisms and a new kind of collectivism.”
- Learning to learn, adjusting to new environments, sharing, being connected with networks and the ‘collaborative skills’ necessary to do these things.
- Learning and new technology, especially collaborative processes and defining new roles and practices.
- New structures in working life, to take account of collaborative, multi-professional and multicultural learning.

But there remain challenges. In their *Report*, the Programme Coordinators identified the following:

- More knowledge about the connections and relationships between processes and learning outcomes.
- More research on methodological issues in multidisciplinary projects.
- How to combine individual processes and societal structures.

In the interviews, the Programme Coordinators acknowledged that *Life as Learning* had put great emphasis on collaboration but were concerned about how to keep it going. They acknowledged that they were still some way from true interdisciplinary work and had still to deal with the management of complexity and the question of who creates the ‘wholeness’?

In conclusion, it is clear from this evaluation that the programme went some way to meeting its aim of developing new research cultures and partnerships. However, despite the efforts of both the Academy and the Coordinators of the *Life as Learning* Programme to promote inter- and multidisciplinary research, and notwithstanding the real gains recorded above, there are two major impediments to progress. These are:

- i. the generally poor understanding of distinctions between inter- and multi-disciplinary research and the potential contributions of each to nationally and internationally important research questions;
- ii. the indifference of a minority of senior (and influential) academics.

Objective 2: Finding ways of managing the challenges of lifelong learning

Within the overall discussion about learning and change, several themes emerged from the group of projects focused on working life and on teachers’ learning. The first was concerned with methodological developments to facilitate learning and change. The second focused on the introduction and management of new technologies, whilst the third involved investigations of the changing complexities of working life, particularly co-configuration, cooperation and collaboration. The fourth feature of the best projects was their engagement with work organisations in what might be called action research. One or two projects produced distinctive theoretical contributions which could benefit those working right across the field of work and learning, but most were relatively modest in their theoretical claims. Few projects restricted themselves solely to the field of work - many elected to consider the same issue within both educational and work settings. These hybrid studies will also be commented on below.

Methodological developments to facilitate learning and change

A number of studies employed new ways of bringing about learning and change in work, including the use of a Change Laboratory, digital video cases and a ‘SimLab’ process. In the best studies, such intensively investigated and managed processes offered both participants and researchers the best of both worlds. For participants, the research contributed directly to bringing about necessary change in the organisation well beyond what might have been the case if the research had not taken place; for researchers, they were able to intervene in change processes as well as observe them, to understand more deeply the learning taking place within complex communities. These methodological developments could, collectively, make a significant contribution to further research, provided they were adequately theorised.

Introduction and management of new technologies

Given LEARN's aim to anticipate future learning needs from the point of view of society, culture and the individual, it is unsurprising that many projects were concerned with the mobilisation of technology to facilitate learning and change in work. Technologies included the development of a virtual 3D game environment in order to promote collaboration and team formation, the employment of digital video as a tool for communal reflection, and the development of e-learning in school, higher education and work. The challenge for researchers is to focus on the primary purposes of education and work, whilst understanding that the technology is part of the changing conditions of working life, rather than an end in itself. The best work was multi-disciplinary, ensuring that these technologies were situated within a broader context of either organisational or pedagogic theory; perhaps there should have been more opportunities to make use of LEARN's other projects to enhance those theoretical understandings.

Some projects were concerned with the development of technological environments in order to reproduce work-like projects and contexts. Some elements of authenticity were introduced including external experts and potential end users in the studies involving schools and universities. Such interesting experiments have the potential to prepare new workers for work practices which require teamwork, and involve hybrid working environments. However, more work is needed both to determine the limitations of context and to theorise collaborative learning in education and in work, given that the outcomes of such collaborative learning may have very different consequences for students and for workers.

Changing complexities of working life

A number of projects were concerned to explore the complexities of working life, involving teams, communities of practice, collaboration, co-configuration and cooperation; this should be applauded. In the past, too much research has focused at the individual level, or the level of the organisation, and has failed to understand either that learning is social and relational, or that change is multi-level and intermittent. The best case studies were able to offer some significant theoretical suggestions because they were able to speak across individual study sites. For example, one study suggested that four features of expansive learning might be detected, regardless of the site for that learning: transformative learning, experiencing, horizontal and subterranean activity. Other projects, whilst successfully achieving their aims, were unable to develop these broader theoretical understandings because the individual studies within the projects tended to draw on different theoretical frames.

Some projects looked at introducing new professional working practices, such as collaborative engagement in teams, at both educational and work levels, making the argument that we need to prepare young people for these new forms of work participation. It was a common issue in these projects that the assumptions about the relationship between educational and work practices, skills and attitudes were not tested. For example, in a study about collaborative learning intended to explore the mechanisms of collaborative learning and sharing knowledge, and deploying technological tools to support better learning outcomes, the contexts for collaboration were highly significant. Whilst student gaming might require collaboration, this does not necessarily have much bearing on collaboration in work.

Action research

A large number of projects concerned with work were, in effect, action research in which researchers intervened in the life of workers and their organisations to develop new practices, and to reflect upon those practices. Such action research was particularly prevalent in research on teachers where the tradition has been long-established. Whilst this meant that the research results were widely disseminated amongst schools and public sector organisations responsible for the management of schools, there were fewer opportunities for findings to be developed outside the sector in which they were based. Nevertheless, it was clear that those projects had the potential to impact upon the development and continuing lifelong learning of teachers. The focus on teachers' learning in a number of projects could have been a strength, enabling education to be understood collectively as a 'special' professional workplace but synergies between projects were not easily harvested.

Education and work

In the context of the overall LEARN programme, given the concern with lifelong and lifewide learning and a desire to anticipate future learning needs, one of the most challenging points of concern for researchers is the relationship between education and work. At its most utilitarian, this might be understood as the extent to which education prepares learners for working life. Taking the changing nature of work and work practices into account, a more refined set of questions might be about the role education could and should have in the formation of workers able to engage in new forms of collaboration, new technologies, new working relationships. A third set of questions involves the role of education in overcoming rather than reproducing social disadvantage and exclusion. And a final set of questions relates to the ongoing education and training of workers within the context of lifelong learning. Whilst the programme did not specifically attend to such questions, nevertheless some of the projects offered the possibility collectively to address one or two of these broader questions.

Conclusion

In conclusion, the scientific quality of the research projects within this area was variable, with the best projects producing new knowledge and outstanding scientific outcomes. Where projects were able collectively to build theory from the constituent studies, they were able to make significant contributions to the field of work and learning. In other projects, constituent studies were only loosely held together by the veneer of a common theme, and both in the reporting and final outcomes, it was clear that it had been challenging to tell a coherent story – one or two projects simply gave up and reported the findings of individual studies, rather than a coherent overall account. This is a problem for the field, since there have been so many case studies which do not collectively contribute to theory building. However, there were often other outcomes as reported above, which benefited participant organisations and partners because of the action-based nature of the research.

To what extent can we say that the programme has been able to respond to the broad call for innovative and challenging studies on the workplace as a learning environment? Overall, studies have tended to focus on the organisational and individual levels, rather than the broader social conditions for learning at work.

The programme has little to offer in terms of macro-level analyses of different social and professional groups in working life. In terms of considering issues of exclusion and segregation through work, only one study really dealt with these issues and that suggested that Finland had a considerable challenge to deal with multicultural workplaces. Perhaps one reason for the relative lack of work in these areas is that these broad social questions are not really suited for postgraduate study, and require rather more involvement of senior researchers as well as substantial resources.

The aim to encourage dialogue between companies and educational institutions on the latest knowledge about adult learning and learning environments has been met in part, but more work is needed on the relations between knowledge produced in educational settings and that produced in work contexts. Without the opportunity for longitudinal studies which follow young people from education to work, or studies which bring together workers and those from education, it seems unlikely that such questions can be answered within the scope of this programme.

The programme was relatively strong in dealing with questions of virtual working environments and the exploration of the impact of dispersed workplaces, but it was probably unreasonable to expect that the programme would be able to support those in education and in companies to create a new cooperative research culture.

Objective 3: Creating a research base for developing teaching and learning in different educational and working life conditions

General remarks

While traditionally learning and schooling are considered two sides of the same coin, it was the explicit goal of the *Life as Learning* programme to broaden this concept of learning. It was pointed out in the programme memorandum that in knowledge-based societies such as Finland, schools no longer have the monopoly over learning. One reason for this is the general acceptance of lifelong learning in modern societies, particularly the recognition that finishing school marks the starting point for new learning processes rather than the end of learning. This has also changed the role of schools. Rather than equipping students with directly applicable competencies, schools are now expected to enable their students to organise their own learning and to prepare them for mastering the as yet unknown demands of their later lives. Furthermore, schools can no longer claim supremacy over learning because it is recognised that learning environments for schoolchildren exist outside formal educational contexts. As a consequence, students acquire many competencies that are not part of the school curriculum and, moreover, these learning processes can be expected to affect their ways of learning in school to a considerable extent.

In a nutshell, modern societies are faced with the fact that schools are only one organisation among others that guide and regulate learning processes at all age levels, and a major reason for launching the *Life as Learning* programme was to find out how to cope with this.

Particular merits of the programme: Creating a new perspective on learning at school

When the *Life as Learning* programme was launched, the Finnish authorities were already aware of the high quality of their schools as rated by PISA (Programme for International Student Assessment, conducted by the OECD). Therefore they did not wish to sponsor research projects investigating the current situation in schools but

rather to focus on the deferred value of scientific research. Some projects therefore focused on new formats of the educational and professional training of teachers, taking advantage of new technologies. Such projects had remarkable national and international outreach, making clear the changing role of teachers in a learning society. Two projects in particular dealt with the personal preconditions for the new demands of learning at school.

Given the outstanding comparative performance of Finnish schools, further research supporting collaborative international research projects on classroom practice and curriculum would be useful. This could also be considered an investment in the future for Finland to help the adaptation to the demands of a changing society.

The *Life as Learning* programme was also concerned with anticipating future challenges of a knowledge-based society inside and outside schools. Within this context, the new teachership has been described by employing the concepts of tutor, co-learner and facilitator. It is important to know how to educate and support teachers in their new role. The readiness to empower different learners and to make room for their diversity is one of the basic skills of a teacher. Her or his task is to promote active learning, collaboration and sharing in varying learning environments, virtual ones included. Learning to learn is a key capability for learners of different ages in lifewide learning situations. Teachers are no longer confined merely to the classroom or educational institution. They are partners in multiprofessional and cross-boundary teams. They work with stakeholders such as parents, company representatives, cultural and social workers and voluntary groups in a civil society. In working to create the supportive learning communities and networks needed in the new learning society, teachers need to be skilled in working with others and in making effective use of ICT.

Knowing how to support teachers in their new role through pre- and in-service education is a vital question. Both educational institutions and open learning environments need a new teaching and learning culture in which collaborative problem solving, knowledge creation by sharing, and distributed cognition are common qualities.

Interdisciplinary dialogue with neuroscience

At the time of the launch of the *Life as Learning* programme the International Decade of the Brain, announced by Unesco at the beginning of the 1990s, had come to an end. It was a time of tremendous progress in the field of neuroscience and enormous public interest in its findings. Since then, a considerable amount of research money has been spent all over the world for further developing brain-imaging techniques. Although the human brain is still a mystery, progress has been made in understanding how learning and other cognitive and emotional processes are proceeding in the brain. Too often, however, some representatives from neuroscience have overshot the mark by claiming expertise in the fields of learning and education. There is an ongoing debate about the potential of neuroscience to inform education reform, and it has become dangerously fashionable to label general – even trivial – pedagogical advice that is not grounded in scientific fact as ‘brain-based learning’. With the exception of some promising insights in the origins of learning disabilities like dyscalculia and dyslexia, neuroscience has as yet not contributed to a better understanding of higher order learning as it is taking place at schools.

Fortunately, the *Life as Learning* programme was not infected by such ‘neuro-fever’. Only one project was funded. Its contribution to the mission of the programme was clearly limited, an insight also expressed by the applicants. The panel suggest that neuroscience should clearly be an integrated part of programmes such as *Life as Learning*, whilst recognising that neuroscience cannot provide the specific knowledge required to design powerful learning environments no matter how far it advances. However, by providing insights into the physiological abilities and constraints of the learning brain, neuroscience can help to explain why some learning environments work while others fail. Thus, future programmes should arrange for a dialogue between neuroscientists and researchers specialised in behavioral methods and encourage collaboration for mutual benefit.

Future recommendations: Combining international visibility with local impact

It was the explicit goal of the programme to inspire collaboration between researchers and Finnish professionals in charge of institutionalised learning. For this reason, core results were published in a book published in Finnish. However, given the international interest in the schools of Finland, and given the necessity for young researchers to have publications in English refereed journals, the programme should have been more visible internationally. With the exception of a single project on motivation and self-regulation in learning and teaching environments, international publications from projects related to schools were rare.

Objective 4: Anticipating future needs of society, culture and individuals

The *Life as Learning* programme has the goal to challenge the concept of learning in a multidisciplinary way; the starting point was that learning is undergoing considerable changes along with the rapid and often unpredictable changes in the global community. Consequently, *Life as Learning* redetermines the new learning requirements and discovers ways of promoting quality learning in education systems, working life and non-institutional learning environments; the attention is shifted from teaching to learning and even towards knowledge creation. The programme challenges the concept of learning and knowledge creation in formal contexts such as kindergartens, schools, colleges and universities and even in firms and their collaborative networks. Alongside the virtual contexts, the concept of learning itself came into question.

In this regard, *Life as Learning* contributes strongly to the dialogue on what the future as a human-centric knowledge-driven, co-creative and innovative society and culture may be. From this perspective, the programme construction of *Life as Learning* benefits from its wide problem-setting and its multidisciplinary research agenda where research is conducted in all the relevant contexts the from education system to working life. The *Life as Learning* programme has been very experimental in nature; it is about piloting for further and more precise scientific goals and research agenda setting.

Based on the programme outcomes, the panel suggests that the Academy’s next research programme should take into consideration the experiences and findings of *Life as Learning* and extend them towards further challenges of the 21st century. The challenges may be discussed in the contexts of human-centric, global and local

knowledge-driven and co-creative collaboration networks supported by new social, institutional and organisational forms and technology, locally and globally. One may assume that human-centric global and local knowledge-driven and co-creative collaboration networks may be needed even for solving the problems of future quality of life.

Consequently, one would argue that the goals and problem-setting behind *Life as Learning* is even more crucial today. We have major changes taking place in schools, universities and working life – at home, in Europe and globally. The development of modern ICT (Information and Communication Technology), human and social networking, and globalisation of economic, social and cultural lives have also rapidly changed the landscape of learning and knowledge creation – even since the *Life as Learning* programme period. New types of learning and knowledge creation are needed for solving the problems of climate change, the environment, nature and humanity by and large.

2.6 Success of the coordination and outcomes in relation to available resources

Given that the programme coordinators faced some significant challenges in encouraging collaboration between universities, disciplines and researchers, as well as between researchers and stakeholders, their approach was to hold a number of seminars and conferences during the first phases of the programme. This was a useful intervention, particularly where related projects were grouped and researchers (especially new researchers) were able to meet face to face to share research questions and tentative outcomes. Participants found this a useful aspect of the programme, to a greater or lesser extent, and appreciated the coordination role.

However the funding of joint meetings and seminars was not included in the overall coordination budget, meaning that coordinators used valuable time looking for financial support for collaborative events. Furthermore the coordination funding came to an end before the end of the programme; thus opportunities for disseminating findings through, for example, joint publications were not developed. For example, the useful publication, the *Life as Learning* periodical, which began to publish early findings up to 2005, came to an end just before the results from research projects were available.

A lot of data was gathered through the many sub-projects constituting the programme. This data was not always fully analysed and, whilst individual researchers might carry on after the end of the programme working on the data, from a programme perspective, this is a disadvantage. Because the programme was relatively short and the coordination curtailed, the panel judged that the opportunity for joint data analysis and theory formation was extremely limited. A systematic overall plan for the managing and publishing of data after the formal conclusion of the programme should have been built into the research plan. Moreover, there is often a long gap between data gathering and publishing in social sciences and it should be taken into consideration in the drafting of research programmes, either by prolonging their duration or by curtailing their ambitions.

2.7 Added value created by the programme

Twenty-three projects were funded by the Academy of Finland and other sponsors. To what extent did the programme add value to these projects?

The programme call for proposals began to add value from its inception because it encouraged researchers to undertake projects that focused on fresh approaches to learning. For example it drew attention to the social and cultural contexts for learning which often tend to be ignored particularly by educational researchers who focus on individual learners or the content of learning. This generated a number of valuable projects which sought to take into account for example the diversity of learners in Finland.

The actual programme process also added value, partly through the joint activities (seminars, publications) organized by the coordinators, and partly through the sub-grouping of projects on similar themes. Where the sub-grouping became a reality and project leaders and researchers came together, the programme was of clear benefit. However, this was the exception rather than the rule.

Another aspect of added value was the opportunity for both new and established researchers to engage with other researchers. The panel heard from programme representatives that this was much appreciated, particularly by doctoral students when they were able to get feedback and make new links.

The programme coordinators were also able to negotiate opportunities for additional exposure for projects through the media. This meant that some projects were able to reach a wider circle of potential beneficiaries than they would have done, if they had been stand-alone projects. Some joint publications were produced, but because these were in Finnish, their sphere of influence was restricted and this was one area in which the programme could have added significantly more value by, for example, commissioning an edited collection by an international publisher.

The programme also had the potential to add benefit by expanding notions of lifelong learning beyond education and training contexts. Its connections between education, work and life opened up what is meant by lifelong learning at a policy level, and offered researchers and stakeholders new ways of understanding that learning is for life.

Finally, the programme was able to promote at a national level new ideas about lifelong learning which were taken up in a number of ways such as the CICERO programme and the inclusion of learning as an aspect of future scientific and technological thinking (e.g. FinnSight 2015).

3 CONCLUSIONS AND RECOMMENDATIONS FOR THE FUTURE

1. Planning of the research programme

The evaluation panel concluded that the programme scope was ambitious in that it recognized multiple sites for learning in the funded projects. The themes were also ambitious although it might have improved the cohesion of the programme to have one over-arching theoretical theme. Projects were mostly ambitious, innovative and demonstrated good leadership in their planning.

2. Scientific quality and outcomes

The majority of projects were constituted by sub-projects and these were sound, although conceptual and methodological relationships between sub-projects could have been further developed at the empirical stage. The best projects developed a comprehensive meta-narrative from the research outcomes. Many sub-projects were based on case study which was understandable because they were PhD projects, but a broader range of research approaches could have been encouraged. The programme could have been even more successful if the allocation of resources had been balanced differently between doctoral students and senior researchers-professors because this would have enabled more ambitious cope for empirical work. The best projects published outcomes in several languages and addressed multiple audiences.

3. Impact of the programme including for stakeholders and practitioners

Some of the projects had local immediate impact, although within the timescale of the programme it was not possible to evaluate the longer-term impact. The programme also had a broader impact on the field of study because a large number of new researchers were trained in the course of the projects.

4. Success of the implementation of the programme goals

The programme went some way to meeting its objectives. However, because of the notably ambitious and wide ranging nature of these objectives, as well as the short duration of programme, there are still many outstanding research questions relating to the programme.

5. Success of the coordination and outcomes in relation to available resources

Where projects were brought together in sub-groupings, researchers found this a useful aspect of the coordination. Programme seminars and the publication, *Life as Learning*, were also useful aspects of the coordination. Two aspects of funding restricted the coordination efforts, though: seminars and other joint activities were not funded, and coordination funding came to an end before the projects were completed. This meant that not all of the overall benefits of such an ambitious programme were reaped.

Because the programme was relatively short and the coordination curtailed, the panel judged that the opportunity for joint data analysis and theory formation was extremely limited. A systematic overall plan for the managing and publishing of data after the formal conclusion of the programme should have been built into the research plan. Moreover, there is often a long gap between data gathering and publishing in social sciences and it should be taken into consideration in the drafting of research programmes, either by prolonging their duration or by curtailing their ambitions.

6. Added value created by the programme

The programme encouraged researchers to undertake projects that focused on new approaches to learning. The sub-grouping of projects had some benefits for individual researchers, and doctoral students were able to get feedback and make new links in the best examples. Some coordinated exposure through the media drew the attention of the public to specific projects. The programme coordinators could have encouraged more international publications by, for example, commissioning an edited collection by an international publisher. The overall programme made connections between education and working life which offered new ways of understanding life as learning.

ANNEX I

LIST OF RESEARCH PROJECTS AND THEIR FUNDING

Life as Learning Research Programme of the Academy of Finland

- Engeström, Yrjö, University of Helsinki,
New forms of expansive learning at work: the landscape of co-configuration
01.01.2003 – 31.12.2006
294 440 €
- Hautamäki, Jarkko, University of Helsinki,
The L2 Factor – Learning-to-learn at School: a Key to Life-Long Learning
01.01.2003 – 31.12.2006
293 150 €
- Heiskanen, Tuula, University of Tampere,
Strategies for Cooperation and Learning in Public and Private Sector Networks (ORGNET)
01.10.2002 – 31.12.2006
195 740 €
- Häkkinen, Päivi, University of Jyväskylä,
Ecology of Collaboration (ECOL): Collaboration as Motivated and Coordinated Activity in Learning at Higher Education and Work-Place Contexts
01.10.2002 – 31.12.2006
195 620 €
- Järvelä, Sanna, University of Oulu,
Ecology of Collaboration (ECOL): Collaboration as Motivated and Coordinated Activity in Learning at Higher Education and Work-Place Contexts
01.10.2002 – 31.12.2007
196 280 €
- Kivinen, Osmo, University of Turku,
Merging fields of high and low technologies as strategic learning environments: The case of the evolving field of functional food
01.01.2003 – 31.12.2006
146 850 €
- Koskimaa, Raine, University of Turku,
The MOMENTS Project – Models and Methods for Future Knowledge Construction: Interdisciplinary Implementations with Mobile Technologies
01.01.2003 – 31.12.2007
97 730 €
- Kumpulainen, Kristiina, University of Oulu,
Mathematics Teacher Learning in the Information Society (MATIS)
01.10.2002 – 31.12.2007
293 220 €

Laine, Matti, Åbo Akademi,

Neurocognition of Language Learning and Re-Learning

01.10.2002 – 31.12.2006

101 520 €

Lilja, Kari, Helsinki School of Economics,

Emerging communities of Practice: the Institutionalisation of Learning at Work (EcoP)

01.10.2002 – 31.12.2006

196 870 €

Multisilta, Jari, Tampere University of Technology,

The MOMENTS Project – Models and Methods for Future Knowledge Construction: Interdisciplinary Implementations with Mobile Technologies

01.10.2002 – 31.12.2006

98 580 €

Nummenmaa, Anna Raija, University of Tampere,

Problem-based learning as a strategy for developing knowledge and competence in the context of education and work

01.01.2003 – 31.12.2006

292 580 €

Nurmi, Jari-Erik, University of Jyväskylä,

Motivation, self-regulation and learning (MRL)

01.01.2003 – 31.12.2006

292 400 €

Olkinuora, Erkki, University of Turku,

From Teaching Society to Learning Society. Generations and their possibilities of learning and coping in postmodern network

01.01.2003 – 31.12.2006

293 550 €

Pitkänen, Pirkko, University of Joensuu,

Learning Intercultural Coompetency in the Workplace

01.01.2003 – 31.07.2005

208 270 €

Ruokamo, Heli, University of Lapland,

The MOMENTS Project – Models and Methods for Future Knowledge Construction: Interdisciplinary Implementations with Mobile Technologies

01.01.2003 – 31.12.2006

98 460 €

Seitamaa-Hakkarainen, Pirita, University of Joensuu,

Facilitating Social Creativity through Collaborative Designing (FSCCD)

01.01.2003 – 31.12.2006

147 100 €

Smeds, Riitta, Helsinki University of Technology,
HELMI: Holistic Development of e-Learning and Business Models
01.10.2002 – 31.12.2006
244 280 €

Suikkanen, Asko, University of Lapland,
Societal Choices in Promoting Life Wide Learning
01.01.2003 – 31.12.2006
195 290 €

Tella, Seppo, University of Helsinki,
*The MOMENTS Project – Models and Methods for Future Knowledge Construction:
Interdisciplinary Implementations with Mobile Technologies*
01.01.2003 – 31.12.2006
97 910 €

Uotila, Minna, University of Lapland,
Facilitating Social Creativity through Collaborative Designing (FSCCD)
01.01.2003 – 31.12.2006
146 720 €

Vauras, Marja, University of Turku,
Motivation, self-regulation and learning (MRL)
01.01.2003 – 31.12.2006
292 680 €

Väljjarvi, Jouni, University of Jyväskylä,
*Teachership – Lifelong Learning (TeLL): Supporting Teachership in a Changing
Work Environment*
01.01.2003 – 31.12.2006
293 090 €

ANNEX 2

APPOINTMENT LETTER OF THE EVALUATION PANEL

SUOMEN AKATEMIA

ASETTAMISKIRJE

14.11.2007

Dnr 9/591/2007

Jakelussa mainituille

TUTKIMUSOHJELMAN ARVIOINTIPANEELIN ASETTAMINEN

Suomen Akatemian hallitus päätti kokouksessaan 6.11.2001 käynnistää nelivuotisen tutkimusohjelman Life as Learning (LEARN) vuosille 2002-2006. Ohjelmaan osoitettiin vuoden 2001 myöntämisvaltuutta 5,1 miljoonaa euroa.

Ohjelma arvioidaan rahoituksen päätyttyä. Arviointi tuottaa tietoa ohjelman tavoitteiden toteutumisesta, onnistumisesta uuden tiedon tuottamisessa sekä ohjelman aikaansaamasta lisäarvosta. Arvioinnilla pyritään myös saamaan palautetta ohjelmaprosessista ja koordinaatiosta sekä muuta tietoa tiedepoliittisen suunnittelun ja päätöksenteon pohjaksi.

Tutkimusohjelman loppuarviointia varten asetetaan arviointipaneeli, jonka tehtävänä on

- 1) arvioida tutkimusohjelman suunnittelua
 - ohjelman valmistelu ja sisällöllinen suunnittelu
 - rahoituspäätökset ja rahoitetut hankkeet ohjelman edellytysten luojina
- 2) arvioida tutkimusohjelmatoiminta ja tulokset
 - tieteellinen laatu ja tulokset
 - ohjelman tavoitteiden toteutuminen
 - ohjelman tuottaman lisäarvo
 - koordinaatiotoiminta ja tulokset suhteessa resursseihin
- 3) antaa suosituksia perusteluineen.

Tutkimusohjelman Life as Learning arviointipaneelin jäseninä toimivat seuraavat henkilöt:

puheenjohtajana

professori *Henning Johansson*, Jönköpingin yliopisto, Ruotsi

varapuheenjohtajana

professori *Elsbeth Stern*, Max Planck –yliopisto, Saksa

ja jäseninä

professori *Patrick Dillon*, Exeterin yliopisto, Iso-Britannia,

professori *Michael Eraut*, Sussexin yliopisto, Iso-Britannia,

professori *Seija Kulkki*, Helsingin kauppakorkeakoulu,

professori *Miriam Zukas*, Leedsin yliopisto, Iso-Britannia

Arviointipaneelin työ päättyy viimeistään 31.10.2008.

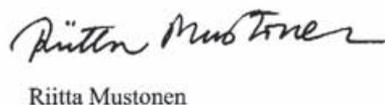
Arviointipaneelin jäsenille toimitetaan yksityiskohtaiset ohjeet arvioinnin suorittamista varten ja heille maksetaan Akatemian ohjeiden mukainen palkkio. Tulokset julkaistaan Life as Learning –tutkimusohjelman arviointiraportissa.

Pääjohtaja



Markku Mattila

Ylijohtaja, tutkimus



Riitta Mustonen

Jakelu

Kulttuurin ja yhteiskunnan tutkimuksen toimikunta
 Ylijohtaja, hallinto
 Hallintoyksikkö
 Talousyksikkö
 Ohjelmayksikkö
 Life as Learning -ohjelmaryhmä
 Life as Learning -koordinaattori

The Academy of Finland launched a multidisciplinary research programme entitled *Life as Learning* (LEARN) in 2002. The objectives of the research programme were to encourage the development of a new research culture and the creation of interdisciplinary and international research projects around the problems of learning, to find a way of managing the challenges of lifelong learning, and to create a solid quality interdisciplinary research base for developing teaching and learning in different educational and working life contexts.

After the completion of the LEARN programme, an international evaluation panel was set up to assess the programme as a whole, placing a particular focus on the scientific quality of the programme's results and impact and its success in implementing the objectives set in the programme memorandum. This report includes the results of the evaluation and the recommendations of the panel.



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