

Report on the evaluation of the Education, Culture,
Cognition and Society (ECCS) Research Unit and of
the Luxembourg Centre for Educational Testing
(LUCET) at the University of Luxembourg

Based on a peer review as commissioned by the Ministry of Higher Education
and Research of Luxembourg

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COMPANY INFORMATION

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I INTRODUCTION

The Ministry of Higher Education and Research (MESR) of Luxembourg mandated *Interface Policy Studies, Research, Consulting*, Switzerland, to organize and lead a research evaluation of the University of Luxembourg. Simultaneously, the Institutional Evaluation Programme (IEP) of the European University Association carried out an institutional evaluation of the University of Luxembourg. The results of the IEP evaluation are published in a separate report.

The research evaluation was conducted in 2016 and followed two earlier evaluations carried out in 2008 and 2012.

The University of Luxembourg is comprised of three Faculties that contain research units linked to different scientific disciplines. In addition, there are three interdisciplinary centres.¹ The evaluation focused on the research performance of the University research units and interdisciplinary centres. This report presents the evaluations of the research unit Education, Culture, Cognition and Society (ECCS) and the research and transfer centre Luxembourg Centre for Educational Testing (LUCET).

The observations and recommendations in this report are based on a peer review by the following four experts working in the research unit's and research centre's research fields:

- Jean-Claude Beacco, professor of French educational linguistics at Sorbonne Nouvelle University – Paris III, France
- Mariette Huizinga, associate professor of developmental psychology at the Free University of Amsterdam, Netherlands
- Hans Anand Pant, professor and chair of Research Methods in Education at Humboldt-Universität zu Berlin, Germany
- Klaus Willmes-von Hinckeldey, professor of neuropsychology at University Hospital Aachen of RWTH Aachen University, Germany

The peer review consisted of a self-assessment report written by the ECCS and LUCET and a hearing at the research unit that took place in September 2016. The evaluation assessed the period 2012 to 2015. The hearing, which was organized and moderated by Interface, consisted of a self-presentation by the research unit, a group discussion of the self-assessment report, and several individual and group interviews. These included interviews with representatives of the management team, professors, PhD candidates,² and further members of the research staff. Based on the experts' assessments, the re-

¹ The Interdisciplinary Centre for Contemporary and Digital History was established in 2016. It is not part of the evaluation, as the assessed period is 2012 to 2015.

² The University of Luxembourg calls its PhD students 'PhD candidates'.

port was finalized by Stefan Rieder and Zilla Roose of Interface. The report has been approved by the experts.

The overall results of all unit evaluations are summarized in a synthesis report.³ The synthesis report includes the findings of the interviews conducted with representatives of the management team at the University of Luxembourg.

The report is divided into two parts: The first part discusses the expert team's observations gathered during the evaluation process. This part will focus on the input, the output, and the outcome/impact of the research unit:

- *Input* includes the preconditions for the research conducted, such as strategies, financial and human resources, infrastructure, organization, and quality assurance systems.
- *Output* includes the performance of the research unit, exemplified through research results and their dissemination.
- *Outcome and impact* refer to the medium- and long-term effects as well as the relevance of the output for science, society, economy, and politics.

The second part presents the expert team's recommendations for further development of existing strengths and overcoming observed weaknesses.

The evaluation team would like to thank everyone involved for preparing and implementing the hearing at the ECCS and the LUCET, for making the documentation available, and for participating in interviews.

³ Rieder, Stefan et al. (2017): Evaluation of the University of Luxembourg, Interface Policy Studies, Research, Consulting, Lucerne.

2.1 OVERALL ASSESSMENT

In general, the experts acknowledge that the two research units, the ECCS and the LUCET, are quite new.⁴ The structure is the result of a historical development and the recent merger of two former research units. Today, the two research units are in a consolidation phase. Therefore, the evaluation is well timed and may be supportive for the stabilization process. The experts rate the ECCS and the LUCET as providing very good working conditions for its members and bringing forth some remarkable researchers and scientific output. Nevertheless, there is a high degree of heterogeneity across the subunits of the ECCS with regard to research organization, output, and impact. The experts notice a need for the development of a strategy that encompasses all of these subunits and for the installation of central governance and monitoring systems.

2.2 INPUT

Specific remarks

The history of the ECCS stretches back to even before the founding of the University of Luxembourg in 2003. The initial College of Education (ISERP, *Institut Supérieur d'Etudes et de Recherches Pédagogiques*), established in 1983, was integrated into two newly founded research units in the field of education in 2005. These two units were in turn merged to become the research unit ECCS in 2013. In 2014, the Luxembourg Centre for Educational Testing (LUCET) was founded by the government of Luxembourg and affiliated with the Faculty of Language and Literature, Humanities, Arts and Education. In the course of this lengthy process, distinctly different professional groups were integrated into one large body. It is thus an inherent characteristic of the ECCS and the LUCET that the staff, their backgrounds, and their professional interests are very diverse. Currently, there are plans to establish the Luxembourg Centre for School Development (LuCS); the LuCS is intended to serve as an interface between research and public administration.

Research strategy

The experts agree that merging the two former units absorbed a considerable portion of the management capacity of the ECCS in the past two years. The management was only able to start initial steps in the process of defining a common research strategy. Therefore, an overarching strategy in terms of aligning and fostering the major research lines is not yet available for the ECCS or between the ECCS and the LUCET.

⁴ Due to their common history during the external evaluation period and their content-related proximity, the two organizationally independent research units, the ECCS and the LUCET, were evaluated in one single peer review. When referring to 'the research units', this report addresses both the ECCS and the LUCET. When only one of the two units is referred to, it is explicitly stated which unit is meant.

The research units define the following four research perspectives as their core approaches: (1) psychological perspective, (2) sociocultural and historical perspective, (3) technological perspective, and (4) linguistic perspective. The experts are of the opinion that these four perspectives together constitute an appropriate approach and allow for comprehensive consideration of all aspects that are relevant to the fields of interest of the two research units. However, they feel that there is a suboptimal match between these four clusters and the structure of the ECCS, which consists of six subunits.⁵ They argue that this might be due to the not yet established final, full-fledged structure and the historical development of the research unit. More globally, it might be beneficial to plan research projects that integrate different domains and perspectives, especially where the Luxemburgish education system is concerned.

Human and financial resources, infrastructure, and equipment

The experts find the system that the two research units have established to support PhD candidates very helpful. It is well structured, and it facilitates candidates' acquisition of soft skills as well as production of high-quality research output. However, it became clear to the experts that the excellence of this system varies across the subunits.

The time limitations stated in the postdocs and PhD candidates' contracts are a problematic subject that ECCS staff members on all hierarchical levels mentioned frequently. The experts agree that the system in some cases seems to have a negative effect on the research unit members' motivation and feelings of loyalty towards the University of Luxembourg. There seems to be no career-planning instrument in place to compensate for this.

The expert team acknowledges the good standard of the infrastructure, which is comparable to other modern and well-equipped universities. Nevertheless, the delayed installation of the central library and of at least one of the ECCS laboratories is hampering smooth continuation of the two research units' work at the new facilities at Campus Belval.

Organization and internal collaboration

The experts understand well that the recent restructuring has hampered daily business within the research units. Assessing the organizational form of the ECCS and the LUCET and its functioning is thus difficult for the experts. In the experts' opinion, the best option for further development of the ECCS and the LUCET is to leave the organizational structures untouched in order to give them the chance to consolidate.

Members of the two research units strongly emphasize the multidisciplinary composition of their staff. The experts acknowledge that this is a promising quality of the research units, as it has the potential to lead to innovative research approaches. However, it is not apparent to the experts to what extent the multidisciplinary structure translates into actual interdisciplinary research. The experts have not observed strong elements of ECCS-wide governance to support interdisciplinary work either in the docu-

⁵ (1) Applied Educational Sciences, (2) Cognitive Sciences and Assessment, (3) Education and Society, (4) Lifelong Learning and Guidance, (5) Research on Multilingualism, and (6) Teacher Professionalization and Psychology of Education.

ments made available or in the interviews. The experts therefore recommend increasing efforts to strengthen horizontal structures, for example by putting a limit on research projects conducted by only a single person.

The experts observe a certain disagreement among ECCS staff members regarding perceptions of the LuCS (see ‘Specific remarks’ above for more information). Some of the researchers regard it as a potential threat to scientific independence from the government; some regard it as a promising opportunity, because it may be an interface between the Ministry and the University, alleviating the bureaucratic burden regarding coordination.

Across all levels of the hierarchy, members of the ECCS complained of heavy teaching loads. This is not easily comprehensible to the experts, as they find the teaching hours demanded by the University to be rather low in comparison with other universities in the EU, such as in the Netherlands, France, or Germany.

External research collaboration and service provision

The research units listed several well-functioning and well-established collaboration projects with other institutions. The experts acknowledge these efforts of intense cooperation and encourage the units to pursue the goal of research collaboration further.

The experts further acknowledge the high quality services to society that some parts of the ECCS and the LUCET provide. Good examples of highly recognized services are the human-computer interaction work group, the planned outpatient clinic for non-typically developing children and teenagers, and the Luxembourg school monitoring programme.

Quality assurance system

The LUCET has established a scientific advisory board. The ECCS is directed by a governing board. The head of the research unit, the heads of the subunits, and the representatives of the staff categories (PhD students, Postdocs, Research Facilitators, and Secretaries) are members of the ECCS Governing board. However, there is no established explicit system of quality assurance on the unit level. The experts see a need and room for improvement in quality management. Special attention should be paid to data management and documentation for quality assurance.

The experts are impressed by the quality assurance in the supervision of PhD candidates. The candidates stated in the interviews that the training course is very well structured and that they feel strongly supported.

2.3 OUTPUT

The experts are aware that the merger of the former institutions implies that several of the ECCS staff members engage primarily in teaching. This inevitably affects overall academic output in terms of publications. Regardless of this fact, the experts note that the publication culture of the ECCS could be more ambitious. This criticism does not pertain to all of the subunits to the same extent. The experts notice an uneven distribution between the subunits in terms of quality and quantity of publications. Some of the ECCS subunits, such as Cognitive Science and Assessment (COSA) and Education and Society (InES), produce very convincing research output on an international level, whereas other subunits are less visible in the research community.

Quality of research output

The experts encountered some difficulties in assessing the quality of the research output at the level of the individual subunits. The examples that were presented in the self-assessment report and during the tour on campus demonstrated state-of-the-art quality as well as the two research units' capacity to produce internationally visible products. Nevertheless, the experts conclude from the information provided in the self-assessment report and its appendix that the quality of the output is heterogeneous across the subunits.

Quantity of the research output

The experts highlight the impressive amount of available cross-sectional and longitudinal data in the LUCET. The output of the LUCET is different from the output of the ECCS subunits, as it deals primarily with commissioned large-scale assessment studies. The experts assess its performance as outstanding and comparable to excellent educational research facilities in leading countries. However, they find the number of publications based on these data too low.

The number of publications per researcher at the level of the research units is below the average of the Faculty of Language and Literature, Humanities, Arts and Education, with which they are affiliated; the number even decreased in 2015. There is no monitoring system for regular and comprehensive collection of information on output.

Third party funding

The experts honour the success of the research units in terms of acquiring funding from the Luxembourg National Research Fund (FNR). So as not to rely too much on a single funding source, however, they encourage seeking funding from additional sources, such as the EU or through other third party funding.

Multilingualism

Multilingualism is a very specific research field, but it seems to be of highest importance in the national context of Luxembourg, which is why the experts wish to highlight this research area in this report. With its variety of spoken languages, Luxembourg is bound to conduct research in this field. The existing research in this area has a good standard; however, the experts encourage the researchers to respond even more specifically to the complexity and importance of this problem in Luxembourg, especially in the field of multilingual scientific literacy.

2.4 OUTCOME AND IMPACT

In general terms, the impact of the research units on the scientific community reflects the heterogeneity between the two research units and within the ECCS subunits regarding the excellence of output. The experts highlight two very good examples of international visibility: the forthcoming ITC conference in Luxembourg in 2020, and the well-recognized and awarded book publications in prestigious publishing houses.

The experts also acknowledge the strong connection between the ECCS and the LUCET and external stakeholders in different areas; this is definitely a strength of the research units. An excellent example of this well-functioning knowledge transfer to practice is the *National Education Report 2015*. The transfer from science to practice is in general better implemented in the ECCS and the LUCET than in other international institutions known to the experts. Another positive example is the involvement of the LUCET in the Programme for International Student Assessment (PISA). The effort that was made through the creation of the language centre and doctoral programme ‘Capitalising on Linguistic Diversity in Education’ (CALIDIE) is remarkable. Furthermore, the expert team recognizes the close link that PhD candidates have to the world of practice and their provision of innovative instruments to teachers.

The experts notice further that many of the staff members at the research units wish to stay at the University of Luxembourg, which is a good sign for the University itself as well as for the country, as it is able to attract and retain mostly highly qualified staff. PhD graduates of the University of Luxembourg have a very good reputation for scientific excellence internationally.

2.5 STRATEGY FOR THE FUTURE

The self-assessment report and the interviews brought to light a number of future research topics and projects of the ECCS and the LUCET: One of the aims is thorough analysis of strategic research topics such as diversity, multilingualism, migration, digital technology, and assessment within the educational context. In addition, improving third party funding by the EU has been set as an objective.

Nevertheless, some questions concerning the future strategy remain unclear to the experts. The experts note the following three concerns: (1) future research areas are not clearly defined, (2) the question of how to better utilize the potential of the LUCET’s longitudinal database for innovative theory-inspired research has not yet been answered, and (3) the further development of the research focus on lifelong learning remains open. The experts are of the opinion that a more coherent strategy for the research units and including answers to these three points would be advantageous.

The ECCS and the LUCET were not able to provide clarification regarding the strategy of establishing the LuCS. Therefore, the experts assume that this was more of an organizational than a content-related step. The interviews revealed a wide variety of attitudes towards the LuCS, as stated above in the section ‘Organization and internal collaboration’. The experts think that acceptance of the LuCS and its usefulness will be

strongly influenced by the composition of the committee of LuCS, the way that the tasks of the new centre are defined, and the way that it interacts with the ECCS and the LUCET.

3.1 SUMMARY

The research units have been shaped by a long history and have gone through major reorganization steps recently. This inevitably leads to tensions between longstanding traditions and newly implemented structures. The experts clearly noted consequences of this structural transformation and thus see the evaluation as very well timed.

The experts assess the units as having very good conditions in terms of infrastructure and equipment. Regarding personnel, the experts are impressed by the supervision of PhD candidates and find the multidisciplinary composition to be an advantage in order to conduct innovative research. It is nevertheless not completely clear to the experts whether this multidisciplinary has been successfully transferred into interdisciplinary projects.

Regarding output and impact, the experts are of the opinion that a substantial heterogeneity exists within the ECCS. Some of the subunits conduct highly visible and recognized research and provide services of which some have a remarkable influence on society. Furthermore, the LUCET has access to a considerable amount of assessment data, the potential of which has not yet been utilized exhaustively.

Within the research units and centres, the current and future roles of the LuCS and, in part, of the LUCET are not clear, and there is as yet no overarching future strategy shared by all members of the research unit and centres.

3.2 RECOMMENDATIONS

Based on the observations stated above, the expert team formulates the following recommendations for the ECCS and the LUCET, the University, and the MESR:

Recommendation 1: Define an overarching strategy

The experts acknowledge that the ECCS and the LUCET have undergone extensive restructuring and assess the first results of the new organization as positive. They recommend that the research units go a step further and initiate the process of defining and establishing an overarching strategy for all of the subunits. This strategy should clarify questions regarding:

- shared values in terms of vision and mission;
- priority research topics and questions;
- interactions and cooperation between the subunits;
- the role of the LuCS and the LUCET;
- the role of staff (e.g. in Applied Educational Sciences, AES) who are mostly engaged in teaching.

The aim of the strategy should also be to strengthen the common spirit of the ECCS and the LUCET. The experts recommend including the boards of the subunits in this process.

Recommendation 2: Acquire funding from further sources

The existing funding through the FNR should be pursued further. In the long run, the experts recommend looking for additional international and national funding sources other than the very supportive FNR. Relying too strongly on the FNR may pose a risk for the future.

Recommendation 3: Implement a monitoring system for research quality and quantity

The experts recommend establishing an internal system to monitor the quality and quantity of the output of the ECCS subunits. This may be of help in the implementation of a common strategy. The ECCS could consider a bonus system that works on block funding and is based on this monitoring system.

Recommendation 4: Install high quality PhD supervision in all subunits

The experts observed high quality PhD supervision in many of the ECCS subunits. They recommend implementing supervision of this high quality in all of the subunits and recommend developing instruments of career planning.

Recommendation 5: Intensify research on multilingualism

Given the multilingual context in Luxembourg, the experts would like to highlight the importance of research on multilingualism and encourage the ECCS to intensify its research in this area. This may be realized through a stronger focus on citizens' literacy, as recommended by the Council of Europe.⁶

⁶ The recommendations from the Council of Europe can be found at:
<https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016805c6105> and
<https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016805c61c3>.