



Connecting Research

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Research Classification

A standard, more coherent and more complete,
classification of research

Agenda

- Origin, needs, and context
- Benefits
- Classification structure
- Implementation
- Next committee priorities
- The future

Origin, needs and context

- Until 2002, the three Quebec research funds used the classification CQDR (classification québécoise de la recherche)
- This classification (CQDR) had many limits
 - Essentially disciplinary classification
 - Confusion between disciplines, research objects and fields of application
 - Few possibilities for aggregation of data among 4 major sectors, 111 domains and 1415 subdomains
 - Classification rather limited in terms of HSS and AL
 - Difficulty of reflecting the new objects at the crossroads of several disciplines, work intended to solve special problems or perfecting of specific methodologies

Origin, needs and context

- Need to develop a classification system that better reflects the current dynamic and complexity of university research
- Need for a classification that answers questions emanating from:
 - Governments (accountability, justification of investments, identification of short, medium or long-term impacts, etc.)
 - Granting agencies and universities (strategic planning, presentation of clear information, identification of key and emerging sectors, etc.)
 - Companies seeking a better focus on the response of university research to economic, technological, social or cultural problems

Origin, needs and context

- New classification has been designed in partnership with:
 - the Ministère du Développement économique et régional et de la Recherche (now designated as MDEIE)
 - The Observatoire des sciences et des technologies
 - The three Quebec Research Funds
 - Other partners (government, universities, scientific community)
- Based on 32 existing international classifications:
 - CLASS, Australian disciplinary classification, banque PASCAL, SCIAN (North America), NABS, ASRC (Australia), used by other Canadian funds (CFI, NSERC), etc.
- Validated and approved by experts (researchers, scientific management)

Benefits

- Simplicity, clarity and user-friendliness: must be easy for users to understand and employ (scientists, administrators, users)
- Exhaustive and exclusive: must cover all research activities (i.e. natural sciences, engineering, health, humanities and social science, arts and letters); must present mutually exclusive dimensions
- Hierarchy: must comprise a reasonable number of classes divided into sub-classes so as to generate information according to several aggregation levels
- Operational: must enable quick and functional implementation, especially in terms of system and organizational capability

Benefits

- Adaptability and flexibility: must be able to factor in emerging themes as needed; must make it possible to characterize researchers and research projects separately; must take into account the new ways in which research is organized (increasingly multidisciplinary, cross-sectoral, inter-institutional, and even cross-community)
- Comparability: must be capable of being compared with other available Canadian and international classification systems, through the development of conversion tables (eg. StatCan, OECD, etc.)

Classification structure

Three-dimensional system that answers three basic questions about a researcher's expertise or research work

	Dimension	Definition	Examples
In what?	Discipline	Field of knowledge characterizing the researcher's training or the research project	Molecular biology Psycho-education Climatology and Meteorology
On what?	Research topic	Phenomenon the researcher is studying	Genetic Diseases Learning Disabilities Climate Changes and Impacts
Why?	Field of application	Problem to resolve	Biomedical Aspects of Human Health Social solidarity Environment

Classification structure

- Classification logic:
 - Each dimension is independent of the others.
 - Each dimension contains two or three hierarchical levels, with the possibility of fine or more aggregated analyses.
 - The combination of the 3 dimensions allows characterization of the research activities of a researcher, a team or a centre.
 - Modelling of the 3 dimensions based on the 4 main research sectors:
 - Health Sciences; Natural Sciences and Engineering; Human and Social Sciences; Arts and literature

Classification structure

Dimension	Level	Health sciences	Natural sciences & engineering	Art, literature, human and social sciences	TOTAL
Discipline	Disciplinary field	3	4	6	13
	Discipline	50	31	59	140
Research topic	Field	12	10	13	35
	Sub-field	0	44	57	101
	Topic	371	298	403	1072
Field of Application	Field of application	1	1	3	5
	Sub-field of application	4	9	11	24

Classification structure

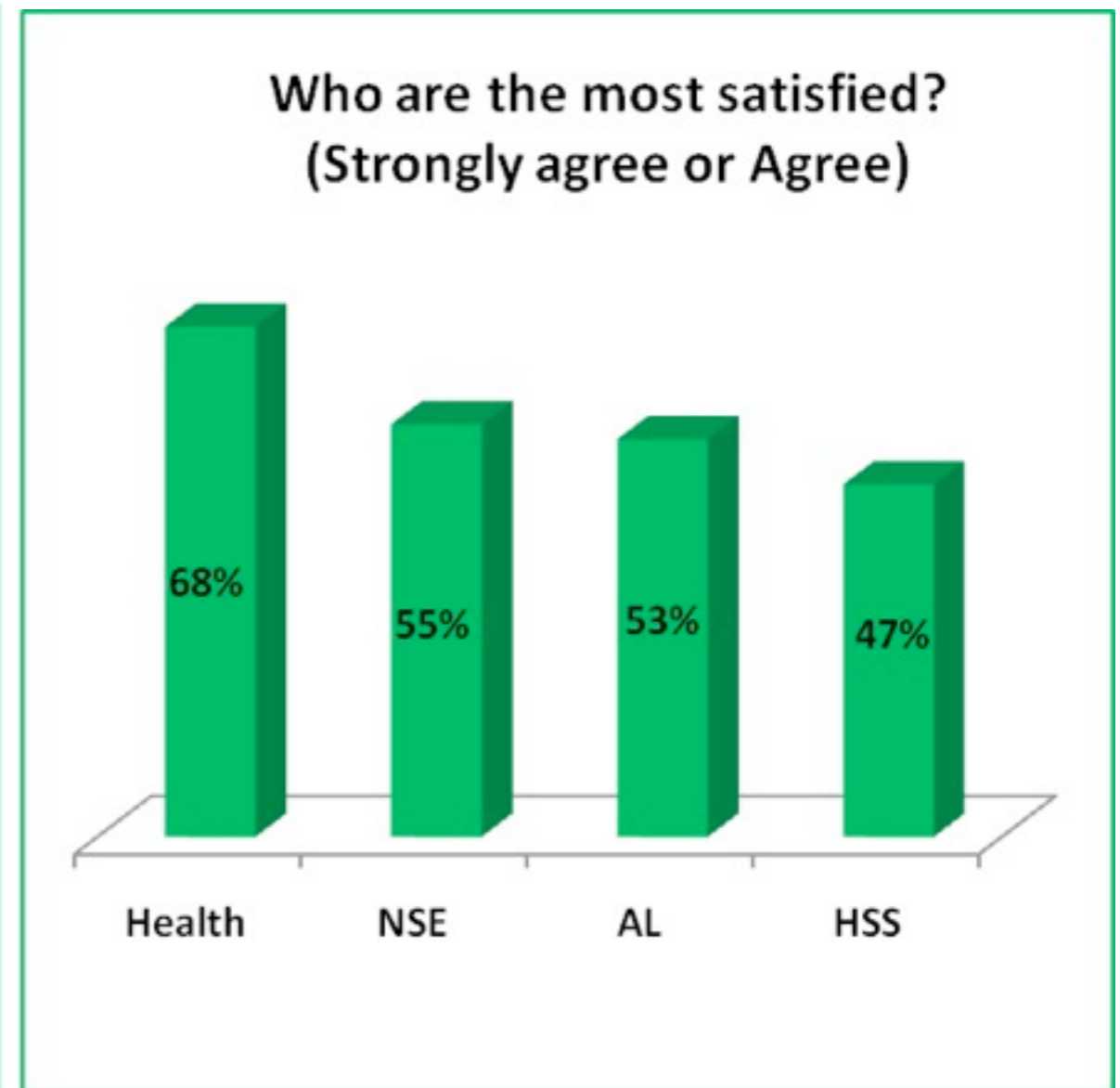
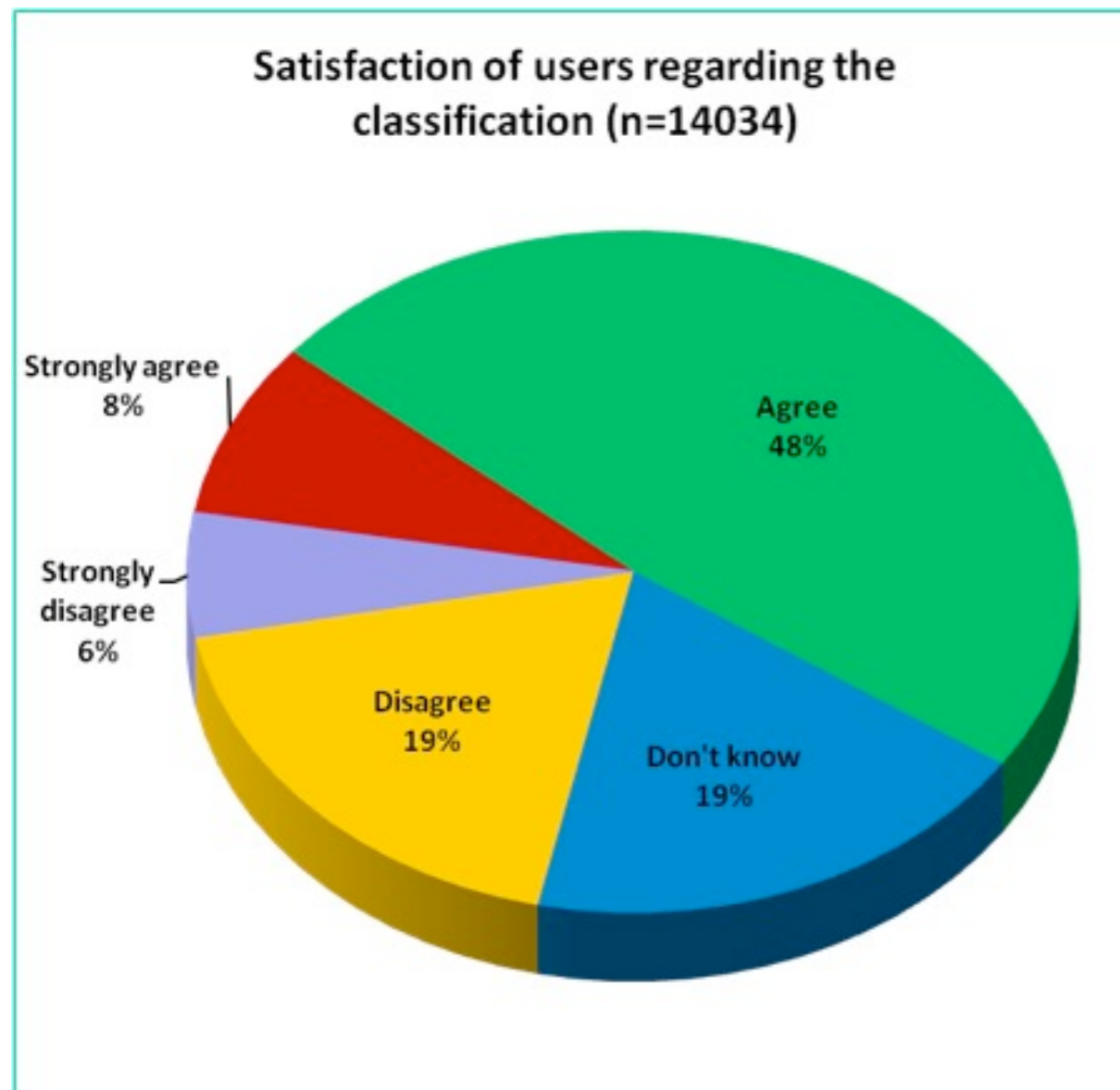
Example – 3 researchers in SSH

	Discipline	Research topic	Field of application
Researcher 1	Psychology	Drug Abuse	Social Solidarity
Researcher 2	Criminology	Drug Abuse	Law & Justice
Researcher 3	School Administration	Working Conditions	Law & Justice

Implementation

- Canadian Common CV:
 - FRQS, FRQNT, FRQSC (projet pilote en 2003), suivi de Manitoba Health Research Council (MHRC), Michael Smith Foundation for Health Research (MSFHR), Nova Scotia Health Research Foundation (NSHRF), Ontario Institute for Cancer Research, Saskatchewan Health Research Foundation (SHRF)
- Application forms
- Provincial Directory of Researchers
- Interprovincial Directory of Researchers
- Experts database

Next committee priorities



Next committee priorities

- Provide for a field in which the researcher can suggest improvements: a space for addition of disciplines, topics or fields of application (periodic analysis through a maintenance process)
- Improve the disciplinary classification by adding some disciplines, particularly in psychology, engineering, biology and medicine
- Add some topics in the nomenclature of domains and topics, particularly for the HSS and NSE areas
- Review the classification of the fields of application the most seriously criticized or the least understood by the researchers, particularly those in HSS and AL

The future

- Adoption by CASRAI as a standard taxonomy
- Adjustments based on the comments collected from the research community and via CASRAI committee and review circle consultations
- Ongoing maintenance and evolution through CASRAI mechanisms



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Thank-you.