

The Certainty and Risk of Research Instrument

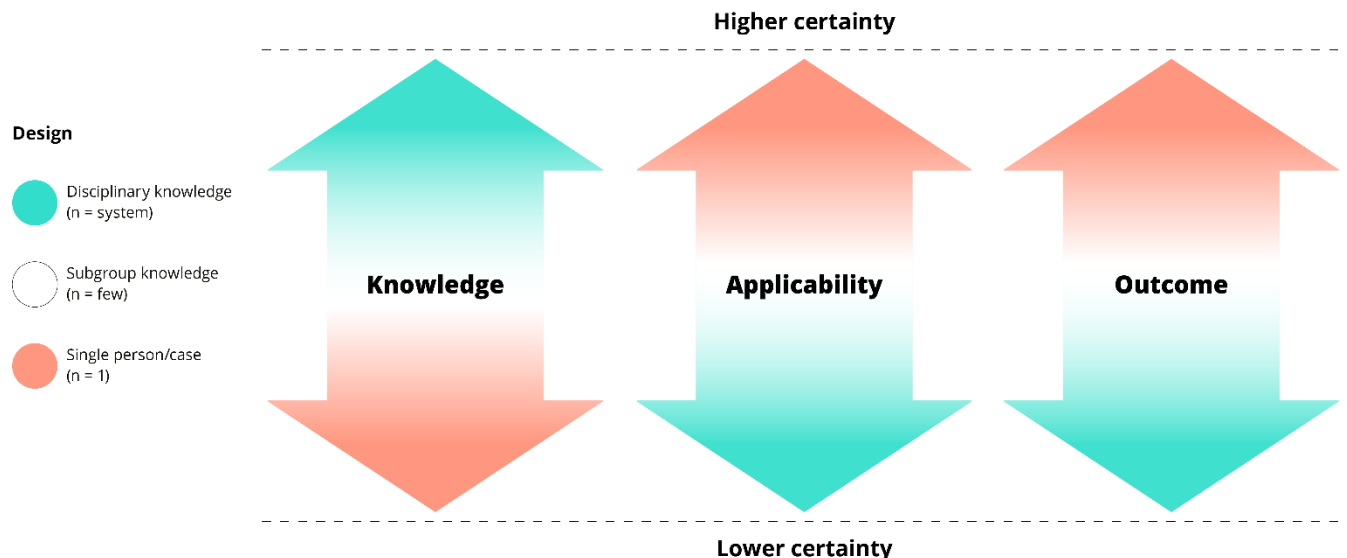
Aim

Depending on the purpose and risk of students' research, different choices can be made for its design. If the purpose remains implicit, this can result in unnecessary debates or unwise decisions. This instrument can help you make clear and collective decisions about the purpose and related risk of student research.

The Purpose of Research

When discussing the integration of research into education (for example, through students performing research), it is important to consider the **purpose** of this. There can be different perspectives on intended purposes, such as creating new scientific knowledge, or supporting practice partners. It is important to gain clarity about these different positions to understand potential directions of development.

The Certainty and Risk of Research instrument visualises research certainty of knowledge, applicability and outcome in relation to its design. The answers to each of these will clarify the (range of) research design options. This instrument can be used to discuss research with students in the classroom and in wider teaching teams that design or guide students' research.



Certainty and Risk of Research Instrument

Higher Education, Research and Innovation Department

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Certainty of knowledge refers to how confident we are that the research findings apply at system, subgroup or individual level. Generally a large number of participants or cases is needed to achieve reasonable certainty of knowledge at system or disciplinary level, for example in epidemiological research. However, for a single person or case, the only way to obtain some certainty is testing that one person. As the number of participants increase, the certainty of the system knowledge obtained increases.

System knowledge findings tend to have the shape of *'this approach is applicable to 60% of group X'*.

Certainty of applicability refers to how applicable the findings of a study are to real-life situations or to specific groups of people. To ensure high certainty of applicability, a rich understanding of all relevant factors is needed. This is often achieved through qualitative research design with lower numbers of participants, or in very specific contexts. This is for example done through use of case studies.

Case study findings tend to have the shape of *'this approach was successful on x, y, and z in case A and B, but not in case C'*.

Certainty of outcome refers to how confident we are that, based on the research results, a particular treatment/intervention will have a particular outcome. A higher certainty of outcome means that if you do X, you are pretty confident that Y will be the outcome. As with certainty of applicability, the only way to guarantee some or higher certainty of the outcome (for example, of an intervention) is to tailor the research to the specific characteristics of the person or group.