

DIRECTIVE FOR RESPONSIBLE CONDUCT OF RESEARCH IN STUDIES AND RESEARCH AT ARCADA

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1. The responsible conduct of research at Arcada

As a student at Arcada University of Applied Sciences (Arcada), you form a part of the Finnish scientific community and in your activities, you shall follow the ethical guidelines which apply to academic studies and work.

All of your achievements, such as exams, degree thesis, scientific articles and other written reports you produce shall follow the responsible conduct of research. Arcada has committed to adhering to the guidelines of Responsible conduct of research and procedures for handling allegations of misconduct in Finland (the RCR guidelines) published by the Finnish Advisory Board on Research Integrity (TENK) in 2012.

2. Central premises for the responsible conduct of research

Central premises for the responsible conduct of research viewed from a research and study ethical perspective are:

- 1. In research and in studies, the principles that are endorsed by the research community are followed, i.e. integrity, meticulousness and accuracy in conducting research and studies as well as in recording and presenting the results and in evaluating the research and the research results.
- In research and in studies, the methods applied for data acquisition as well as for research and evaluation, conform to scientific criteria and are ethically sustainable. When publishing the research results, the results are communicated in an open and responsible fashion that is intrinsic to the dissemination of scientific knowledge.
- 3. In their own research and degree thesis and when the results of these are published, the researchers and students shall take due account of the work and achievements of other researchers and students by respecting their work, citing their publications appropriately, and by giving their achievements the credit and weight they deserve.
- 4. In regards to research or a degree thesis, the researcher or student complies with the standards set for scientific knowledge in planning and conducting the work, in reporting the results and in recording the data obtained.
- 5. Research permits have been acquired and the preliminary ethical review that is required for certain fields of research has been conducted.
- 6. Prior to beginning the research or degree thesis which forms part of a research project, all parties within the research project or research team including the employer, the responsible researcher and the members of the research group shall enter into a contract regarding the rights, principles of authorship, responsibilities and obligations as well as questions concerning archiving the data and the right to use the data in a way which all parties accept.
- 7. Sources of financing, conflicts of interest or other commitments relevant to the execution of the research or the degree thesis are announced to whom it may concern as well as the participants of the research and are reported when publishing the results.



- Researchers and students refrain from all science, research and thesis related evaluation and decision-making, when there is reason to suspect a conflict of interest.
- 9. Arcada adheres to good personnel and financial administration practices and takes the data protection legislation into account.

3. Violations of the responsible conduct of research

Violations of the responsible conduct of research refer to the unethical and dishonest practices that damage research and in worst cases, these practices invalidate the research results. Violations of the responsible conduct of research consist of actions that may have been committed either intentionally or through negligence.

While it is difficult to define such violations in detail and unambiguously, with the help of examples it is possible to characterize ethically irresponsible practices.

The violations of the responsible conduct of research can be classified into research misconduct and disregard for the responsible conduct of research. Research misconduct and disregard for the responsible conduct of research may occur in planning and performing the research or the written performance and in presenting the results and conclusions.

In addition to research misconduct and disregard for the responsible conduct of research, other types of practices which are incompatible with the responsible conduct of research may occur.

3.1. Research misconduct

Research misconducts refers to misleading the teacher, Arcada, and the scientific community as a whole. It can include presenting false information or false results or presenting the work of other researchers or students as one's own. Research misconduct can be categorized into four subcategories:

- **Fabrication** refers to presenting invented observations. In other words, the fabricated observations have not been made by using the methods as claimed in the research report or written performance.
- Falsification refers to modifying and presenting original observations
 deliberately so that the results based on those observations are distorted. The
 falsification of results refers to the unfounded modification or selection of
 research results or the omission of results or information that are essential for
 the conclusions.
- Plagiarism refers to representing another person's material as one's own
 without appropriate references. This can include research plans, manuscripts,
 articles or other texts or parts of them.
- **Misappropriation** refers to the unlawful presentation of another person's result, idea, research plan, or research results as one's own. Misappropriation also refers to the unlawful use of another person's literary or artistic works which are



protected by copyright law, for example the copying of images and other material from the Internet without the permission of the copyright holder or without naming the sources in situations where permission isn't required.

In addition, cheating in exams, e.g. by using unauthorized helping aids or by cooperating with other students without permission is also considered to be research misconduct.

3.2. Disregard for the responsible conduct of research

Disregard for the responsible conduct of research manifests itself as gross negligence and carelessness during the different stages of the research or study process. The following are examples of disregard for the responsible conduct of research:

- denigrating the role of other researchers or students in publications or other written performances, e.g. by neglecting to mention them or by referring to earlier research results inadequately or inappropriately
- reporting research results or applied methods in a careless and therefore misleading manner
- inadequate record-keeping and storage of results and research data
- publishing the same research results multiple times seemingly as new and novel results (self-plagiarism)
- misleading the teacher, Arcada or the scientific community in other ways as it relates to one's research work

Neglecting to submit the research plan or degree thesis plan for preliminary ethical review is also considered to be disregard of the responsible conduct of research, when the work concerns people as informants or research objects and the subject or research methods are of such nature that an ethical review is required.

3.3. Other irresponsible practices

Other irresponsible practices may also occur in research and studies, e.g.:

- including persons who have not participated in the research and studies in the list of authors
- exaggerating one's own scientific merits
- adding superfluous research references to a source list in order to make it seem more encompassing
- delaying the work of another researcher or student
- making a false accusation about a violation of the responsible conduct of research



- hampering inappropriately the work of other researchers and students
- misleading the general public by publicly presenting deceptive or distorted information concerning one's own research or written performance, its results, scientific importance or applicability

In their most serious forms, these practices may meet the above-mentioned criteria for violation of the responsible conduct of research.

3.4. Plagiarism check

To prevent incorrect and careless reference techniques and to identify cheating, all final degree theses are scrutinized by the plagiarism checking system Urkund. The system checks the text against three central source areas: Internet, published material and previously submitted student material. Other written performances during the studies can also be scrutinized by Urkund, if the teacher so wishes.

4. Handling of alleged violations of the responsible conduct of research

It is in the mutual interests of society, the research community, the researchers and the students to resolve all allegations of research misconduct.

At Arcada, there are two different processes for the handling of alleged violations of the responsible conduct of research:

- the handling of alleged violations of the responsible conduct of research in connection to studies and non-scientific degree theses
- the handling of alleged violations of the responsible conduct of research in connection to research

4.1. The handling of alleged violations of the responsible conduct of research in connection to studies and non-scientific degree theses

The process for the handling of alleged violations of the responsible conduct of research in connection to studies and non-scientific degree theses (Arcada's internal process) is applied to studies and degree theses which lead to a bachelor's degree as well as on studies and non-scientific degree theses which lead to a master's degree. A degree thesis which leads to a master's degree can be viewed as scientific if it forms part of a bigger research project and/or a scientific article is published based on it. In those cases, alleged violations of the responsible conduct of research are handled in accordance with the process for handling alleged violations of responsible conduct of research in connection to research.

When there is an alleged violation of the responsible conduct of research in connection to studies and non-scientific degree these, the matter is processed according to the following:



1. Notification

When an alleged violation of the responsible conduct of research arises in relation to a non-scientific degree thesis, the supervisor contacts the student and asks him/her for an explanation in regards to the alleged violation. If the student's answer does not erase doubt, the supervisor makes a written notification about the alleged violation and the grounds for it to the dean for school.

When an alleged violation of the responsible conduct of research arises during or after an exam, the exam supervisor informs the student about the alleged violation. If the alleged violation arises during an exam, the student is allowed to finish the exam. The exam supervisor, in case the supervisor isn't also the examiner, informs the examiner about the alleged violation and they make a written notification about the alleged violation and the grounds for it to the dean of school.

When an alleged violation of the responsible conduct of research arises in connection with some other type of written performance, the examiner makes a written notification about the alleged violation and the grounds for it to the dean of school.

A notification about alleged violation of the responsible conduct of research cannot be made anonymously.

2. Investigation

The dean of school decides if an investigation is to be commenced. The decision to commence an investigation and the grounds for it shall be communicated without delay to the student alleged of misconduct as well as the person who reported the allegation.

The dean of school collects the background material necessary for the investigation as well as hears the student allege of misconduct and the person who reported the allegation. For the purposes of the investigation, the dean of school can consult experts within Arcada, e.g. experts within law as well as research ethics.

The dean of school submits an investigation report. The report shall contain a description of the grounds on which the alleged violation of responsible conduct of research has been made, an evaluation of whether the allegations constitute violation of responsible conduct in research, if it concerns research misconduct or disregard for the responsible conduct of research, as well as an evaluation of how serious the violation is, if it is a case of repeated violation of responsible conduct in reserach as well as suggestions for continued measures.

3. Decision

If the investigation shows that the alleged violation of the responsible conduct of is unfounded, no further measures will be taken.

If the investigation shows that the student has violated the responsible conduct of research, the dean of school suggests that to the rector that the rector gives the student a written warning and rejects the performance. If the investigation concerns a degree thesis, the rector also decides about whether or not the student shall correct certain parts of the degree thesis or write a new degree thesis.

If the violation is gross, the rector can suggest that the board of Arcada decides about suspending the student for a limited amount of time, one year at most. Examples of gross violations include knowingly plagiarizing significant parts of or the whole degree



thesis, fabricating, stealing or falsifying text in a degree thesis, giving misleading information about research permits as well as statements about ethical review or repeatedly violating the responsible conduct of research.

The decision is always shared with the student alleged of misconduct and the person who reported the allegation.

4.2. The handling of alleged violations of the responsible conduct of research in connection to research

The process for handling alleged violations of the responsible conduct of research in connection research in accordance with the RCR guidelines (RCR process) is applied to research and publications as well as to other written works with an immediate connection to scientific work regardless of their form of publication, such as textbooks, funding and project applications, poster presentations, evaluations of academic theses, and referee statements. The RCR process also applies to scientific degree theses, i.e. degree theses which lead to a master's degree and form part of a bigger research project and/or based on which scientific articles are published.

The rector is responsible for the decision-making during the entire RCR process and the responsibility cannot be transferred to anyone else.

The Finnish Advisory Board on Research Integrity (TENK) shall be informed about the suspicion of an alleged violation of the responsible conduct of research in connection to research as well as the decisions which are made throughout the different stages of the RCR process. The process is as follows:

1. Written notification

The rector of Arcada is to be informed of the allegation of a violation of the responsible conduct of research through a written notification. The notification shall specify the type of the alleged violation of responsible conduct of research as well as the grounds for the allegation. The notification can be made using TENK's <u>Template for reporting</u> <u>allegations of violation of the responsible conduct of research</u>. The notification cannot be made anonymously.

The rector can also initiate an investigation of allegations that have come to his/her attention from other channels. Furthermore, TENK can also recommend an investigation if it has reason to suspect misconduct within Arcada.

2. Preliminary inquiry

The rector decides if a preliminary inquiry is to be commenced.

It's possible to refrain from starting a preliminary inquiry if the alleged violation does not belong to the area of application of the RCR guidelines, if it without further action is clear that the notification is unfounded or there are other justified reasons, e.g. that a preliminary inquiry has already been started in another research organization. If a preliminary inquiry is not commenced, a reasoned decision is to be shared with the person who reported the allegation, the person alleged of misconduct as well as TENK.



If a party is dissatisfied with the decision, he or she may request a statement from TENK within six months of the date of being notified of the decision.

If a decision to conduct a preliminary inquiry is made, the person who reported the allegation, the person alleged of misconduct as well as TENK must immediately be notified of the decision and the grounds for it.

The purpose of the preliminary inquiry is to initially determine the validity of the allegations of research misconduct that are stated in the notification and the evidence that has been presented to support these allegations. The person who reported the allegation, the person alleged of misconduct and, if necessary, experts and other persons are heard during the preliminary inquiry. The preliminary inquiry must be conducted within three months of receiving the notification, unless there are particular reasons to grant additional time for the completion of the inquiry.

On the basis of the preliminary inquiry, if the allegations turn out to be unfounded, the rector will make a decision to discontinue the investigation process. The decision must be communicated to the person alleged of misconduct, the person who reported the allegation as well as TENK. The decision may also be made public if so requested by the person alleged of misconduct or if the publishing of it is otherwise deemed necessary. This decision must state that any party dissatisfied with the decision can request a statement from TENK within six months of being notified of the decision.

The rector will decide on the potential consequences should the allegations regarding the violation of the responsible conduct of research be unfounded or malicious.

3. The investigation proper

If after preliminary inquiry, there is still reason to suspect disregard of the responsible conduct of research or research misconduct, the rector must initiate the investigation proper. Conducting this investigation is unnecessary when the inquiry has established that a violation of the responsible conduct of research has occurred, the person alleged of the misconduct agrees with the results of the preliminary inquiry, and there is otherwise no other specific reason to conduct the investigation. An investigation proper is, however, warranted if the preliminary inquiry has revealed indications of widerranging misconduct than was initially suspected.

The rector establishes an investigation committee and invites expert members to join, one of whom will be appointed as chair of the committee. The investigation committee must have the necessary expertise in the academic discipline in question, as well as the legal or other expertise required. At least two members of the committee must be external to Arcada. The appointment of the investigation committee and its activities must be in accordance with the Finnish administrative legislation and its stipulations about conflict of interest.

The parties as well as TENK are to be informed that the investigation has commenced.

The investigation shall be conducted with expediency and each phase, such as the hearing of the parties, is to be carefully documented. If the investigation committee has not completed the investigation within six months of it being established, it must submit



a report concerning the delay to the rector, who will then decide regarding the additional time required.

The investigation committee is to submit a final report on its work. The report shall contain an account of the events prior to the establishing of the investigation committee, such as an account of the research or the activities alleged to represent misconduct as well as the evidence for the allegation, an account of the investigation committees tasks and activities and of the hearing of the parties, a reasoned assessment of the investigation committee to determine whether the suspected activity in each specific allegation of the written notification constitutes a violation against or disregard towards the responsible conduct of research, a reasoned assessment concerning the nature of the violation towards the responsible conduct of research as well as a reasoned assessment concerning the severity of the violation and its frequency of occurence, when necessary, a list of the research material, results and publications that in the opinion of the investigation committee contain a violation against or disregard towards the responsible conduct of research, a proposal concerning the publishing of the conclusions of the final report as well as possible proposals on how the consequences of the violation should be rectified.

The rector asks the person alleged of misconduct and the person who reported the allegation to submit responses to the final report.

4. The decision

The rector decides on whether or not a violation of the responsible conduct of research has occurred. The decision must be communicated to the person alleged of the misconduct, to the person who reported the allegation as well as to TENK. The decision must mention that a party dissatisfied with the decision can request a statement from TENK within six months of the decision.

If the investigation finds that the misconduct constitutes a violation against the responsible conduct for research, measures must be taken to publish the findings of the final report in a manner deemed appropriate by the committee and when possible, at least in the publication channel where the fraudulent research findings or results based on fraudulent means already have been published.

In addition, the reported violation against the responsible conduct of research can lead to other sanctions that the rector is justified or obligated to impose on the basis of, for instance, legislation pertaining to administrative, criminal, labour or contract law. If a violation of the responsible conduct of research has occurred, the sanction for that violation must be in just proportion to the severity of the violation.

If the investigation finds that the person alleged of misconduct has not violated the responsible conduct of research, the person alleged of misconduct and the person who reported the allegation must be notified of this decision. Furthermore, an effort must be made to publish the findings of the investigation in an appropriate publication channel if the person alleged of misconduct so desires, or if there are other compelling reasons.

If the person alleged of misconduct works in a research organisation other than the one in which the allegation has been handled or receives external research funding, the final report of the investigation shall also be sent to the employer or the funding organisation.



If the person alleged of misconduct or the person who presented the allegation is dissatisfied with the rector's decision, the procedures adopted in the preliminary inquiry, with the investigation proper or with the conclusions of the final report, he or she can request a statement from TENK. The request must be justified an it must address the specific questions that are the basis for the statement requested. The responsible conduct of research process must be completed before any requests can be submitted to TENK. No statement will be issued during the interim stages. The request for statement must be submitted within six months of the decision.

This directive has been approved by the rector of Arcada University of Applied Sciences on the 8th of February 2022.