Guidelines for avoiding plagiarism and self-plagiarism in PhD thesis writing

DTU aims to produce excellent research, and wishes to ensure that all PhD theses meet high standards for good scientific practice. Furthermore, DTU wishes to ensure that all students are well prepared for a scientific career. It is important that you fully understand the definitions of plagiarism and self-plagiarism and how they relate to questionable research practice and scientific misconduct.

Important definitions

**Plagiarism**
Plagiarism is defined as ‘the acquisition of someone else’s ideas, processes, results, text or special terms without proper acknowledgement’ and constitutes scientific misconduct.

**Scientific misconduct**
Scientific misconduct is defined as fabrication, falsification or plagiarism, carried out with intent or resulting from gross negligence in the planning, execution or reporting of research.

**Self-plagiarism**
Self-plagiarism is the reuse of one’s own text or figures without clear indication of the reuse. Self-plagiarism is considered questionable research practice.

**Questionable Research Practice**
Questionable research practice is defined as the breach of recognized standards for responsible conduct in research, including the standards put forth in the Danish Code of Conduct.

For more information about how cases of questionable research practice and scientific misconduct are handled, see the DTU guidelines.

**Plagiarism:**
Plagiarism is more than simply using text from another source without giving due credit. It is also the use of someone else's ideas, results, methods, special terms or processes, without reference to the original source. Text from other sources must not be used unless it is in the form of quotation along with a reference to the original source.

**Paraphrasing**
Paraphrasing is reformulating or summarizing text written by another author. When this is done appropriately, the words and syntax are your own and the text is markedly different from the original, although communicating a similar content. When paraphrasing, the original author should always be referenced. Reusing sections of text where only a few words are changed or rearranged is referred to as inappropriate paraphrasing. Inappropriate paraphrasing constitutes plagiarism, namely when this occurs in a systematic fashion.
For examples of appropriate and inappropriate paraphrasing, see https://ori.hhs.gov/plagiarism-9

**Self-plagiarism**

Self-plagiarism is the use of your own text or figures, which have previously appeared in a different context, without indication of the reuse. This is often also referred to as text recycling. Self-plagiarism is considered questionable research practice, and it is therefore important that you always disclose any reuse of your own text from previous sources, whether this is an article, an assignment or a conference paper. Self-plagiarism is problematic for several reasons:

- **Published papers and copyright:** When you publish a paper in a journal, you no longer own the full copyright to that paper. This means that if you take text or figures directly from that paper and include them in another scientific work without disclosing where they originally appeared, you are potentially infringing copyright.

- **Co-author rights:** When you share authorship of a scientific article, you and the co-authors have equal rights to the contents of that paper. This means that if you reuse text or figures from that paper without disclosing the original source, you are in effect plagiarizing your co-authors. This could lead to a dispute and should therefore be avoided. It is important to note that such disputes may emerge at a later stage in your career, and it is therefore important to be in agreement with your co-authors from the start.

- **Transparency and originality:** When assessing your thesis, it is important that examiners are able to distinguish clearly between work done during your PhD and any work, which may have been conducted prior to your PhD studies. Therefore, you should always be transparent about the original source of text or figures. In the context of published papers, self-plagiarism is primarily a concern with regard to duplication of papers - that is one paper is submitted to multiple journals.

*Using your own research papers (submitted or published) in your PhD thesis*

When you write your PhD thesis, you may already have published one or more articles on the work carried out during your PhD, and you may want to use this work in your thesis. However, there are several things you should be aware of in order to avoid unintentional self-plagiarism.

It is of course acceptable to use your published or submitted articles in your thesis, provided that you have obtained permission from the publisher for this use. Articles may appear in your thesis as chapters or as appendices.

- **Important to note:** Many journals only allow you to use the post-print version of your article, meaning the accepted version of the article, without the publisher’s final formatting. In the event that your article is submitted, but still under review, you should use the latest submitted version of your article in your thesis. Always remember to check your publisher’s guidelines on the reuse of published articles. Most journals, unless open access, have an embargo period on published articles, meaning that within this period you cannot freely use the article. Check your publisher’s rules on this issue.

*In order to avoid unintentionally self-plagiarizing, consider the following scenarios:*

- **You wish to use your whole article as a chapter in your thesis:**
  - You must clearly indicate at the beginning of the chapter that the chapter is a published/submitted article and ensure that the article reference is clearly identifiable
Remember to consult your publisher's guidelines on the reuse of articles and if necessary obtain a permission for reuse.

When you use your whole article, you should avoid making changes to the text, although reformatting for the purposes of fitting the article into the thesis format is of course acceptable (heading style etc.).

You wish to use only parts of your article in a chapter of your thesis:
- You must clearly state, at the beginning of the chapter in question, that it is based on one or more submitted or published articles, and include clear references to those articles.
- If the section you wish to reuse is short, you may wish to quote your article. Such a quote should be followed by a reference to the article in question.

You wish to use one or more figures from your article in your thesis:
- You may reuse your figures, if you clearly reference the article where the figure originally appeared. Note that reusing figures as they appear in your paper may require permission from your publisher.
- Alternatively, you can reformat your figure, in which case permission is not needed, but the article in which the original figure appeared should still be referenced.
- In the event that the figures appear as part of a whole article, it is not necessary to reference the source of individual figures, as they are clearly imbedded in the article, for which you have already provided a reference.

Guidelines on the use of text or content from previous assignments in your thesis:
Using content or text from previous assignments such as master's theses should only take place with clear reference to the assignment in question. This is because the PhD thesis should only contain work that you have actually carried out during your PhD, and all work conducted before your PhD, should be clearly identifiable as such. Any material resulting from work carried out as a part of a special course during your PhD enrolment, should also be clearly identifiable as such.

Tips
- Decide on the format of your thesis, well before you start to write. Discuss the different options with your supervisor. This will help you determine which specific guidelines you should use when you write.
- Speak to your supervisor about writing conventions in your field of study. It is the responsibility of your supervisor to train and inform you on good scientific practice as this relates to your field of study.
- Check copyright rules and permissions with the journal where you intend to publish, prior to submitting your paper. If necessary, request permission for use of your accepted article in your thesis at the time of publication, so that you do not have to obtain this permission retrospectively.
- Always ensure that text reuse from your own research papers is clearly indicated at the beginning of the chapter in which they appear.
- Ensure that you obtain consent from your co-authors if you reuse any text from your shared articles. Your co-authors must sign the co-author agreement (link), which must be submitted with your finished thesis.

If you have questions about the Danish law or the DTU guidelines on plagiarism, you should contact DTU's Research Integrity Officer (researchintegrity@adm.dtu.dk) or Legal Consultant Susanne Schultz (susc@dtu.dk).

Other resources:
Researchers portal:
http://forskerportalen.dk/en/plagiarism-credits-and-good-citation-practice/ (English)
http://forskerportalen.dk/da/plagiat/ (Danish)

Stop plagiarism:
http://stopplagiat.nu/en/ (English)
http://stopplagiat.nu/ (Danish)

Office of Research Integrity (US):
https://ori.hhs.gov/avoiding-plagiarism-self-plagiarism-and-other-questionable-writing-practices-guide-ethical-writing (English)