

Teaching Referencing Skills to Undergraduate Aeronautical Engineering Students

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Overview

- Introduction
- Writing figure captions
- Referencing rules and following a style sheet
- In-text referencing practice
- Composing a list of references
- Written assignment and corrections
- Consolidation of referencing skills
- Applications and transfer of referencing skills
- Ethics beyond referencing
- Conclusions
- References



Figure 1: University building, 27 June 2011

1. Introduction to the university

- One of the largest universities of applied sciences in Austria
 - Teaching university with research
 - 3 sites, main campus Graz
 - 5 200 students
 - 23 100 graduates
 - 800 employees
- Programs
 - Bachelor's degree
 - Master's degree
 - Career fields
 - Information technology
 - Building, environment, & society
 - Engineering
 - Health sciences
 - Business & management
 - Media & design

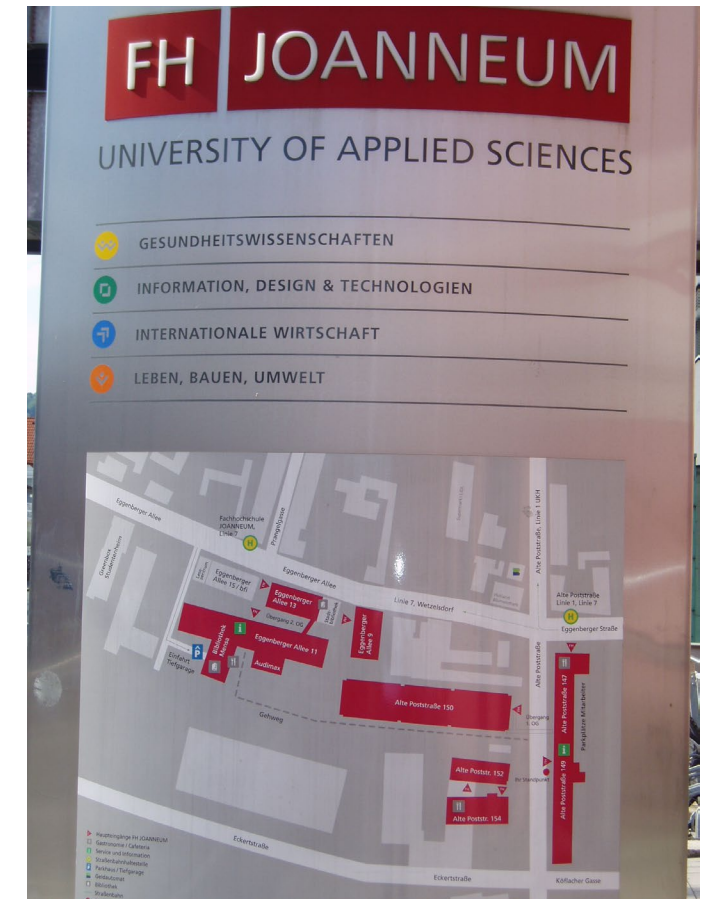


Figure 2: Graz campus map, 27 June 2011

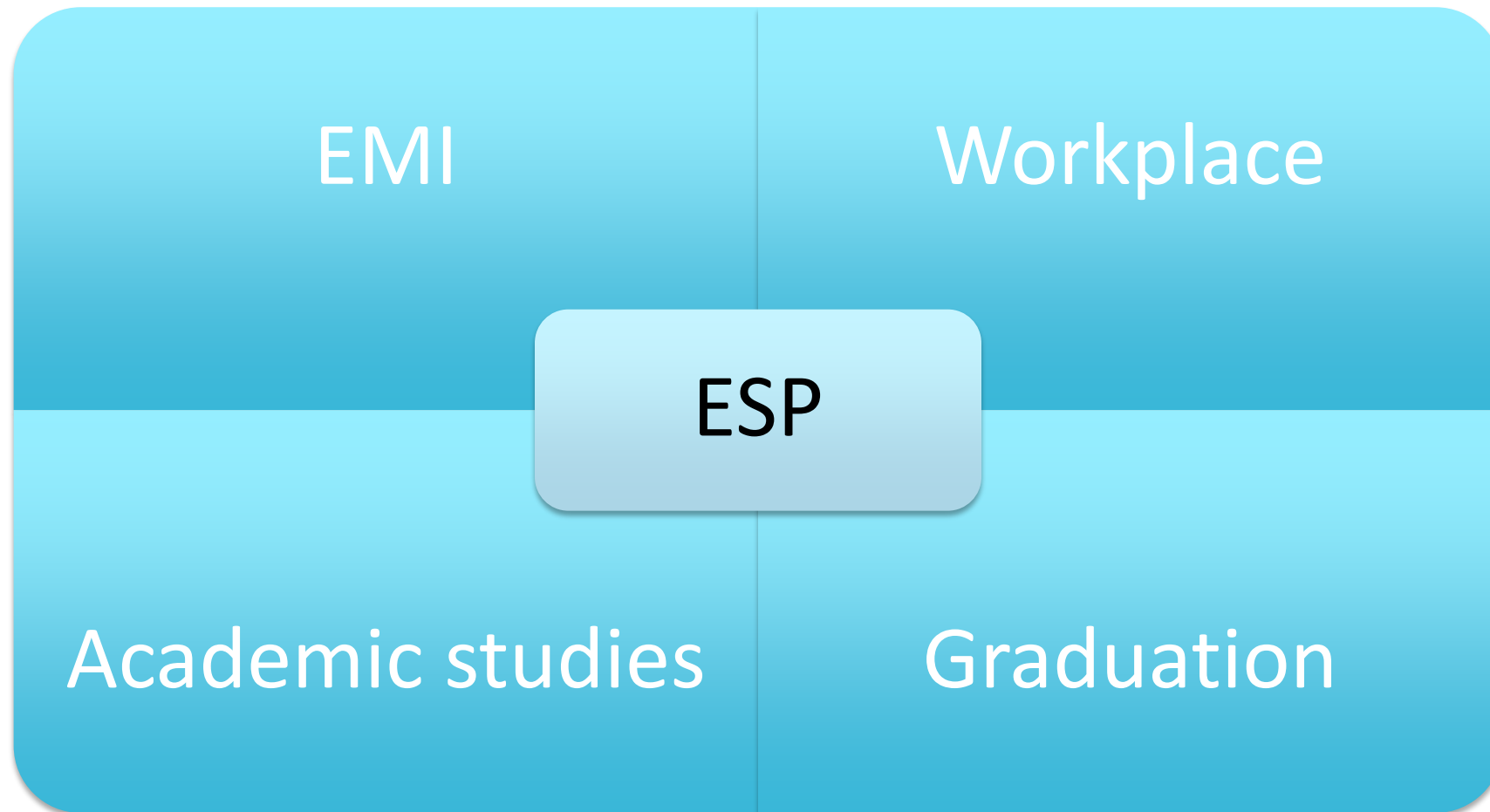
1. Introduction to the Institute of Aviation



Figure 3: Aft-fuselage section of a Dornier 728, aviation laboratory,
27 June 2011

- BSc in Engineering (3 years)
 - 39 places/year, full-time
 - Aeronautical engineering
 - Instruction in German
- MSc in Engineering (2 years)
 - 25 places/year, full-time
 - Aeronautical engineering
 - Instruction in English (EMI)
- MBA in Air Transport Management (2 years)
 - 16 places, in-service
 - Instruction in German & English
 - Tuition fees
- Aviation laboratory

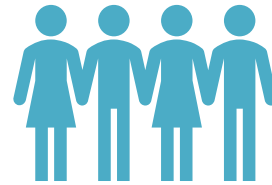
1. Introduction to tertiary ESP at the institute



1.1. Diverse student cohorts in global higher education



International mobility

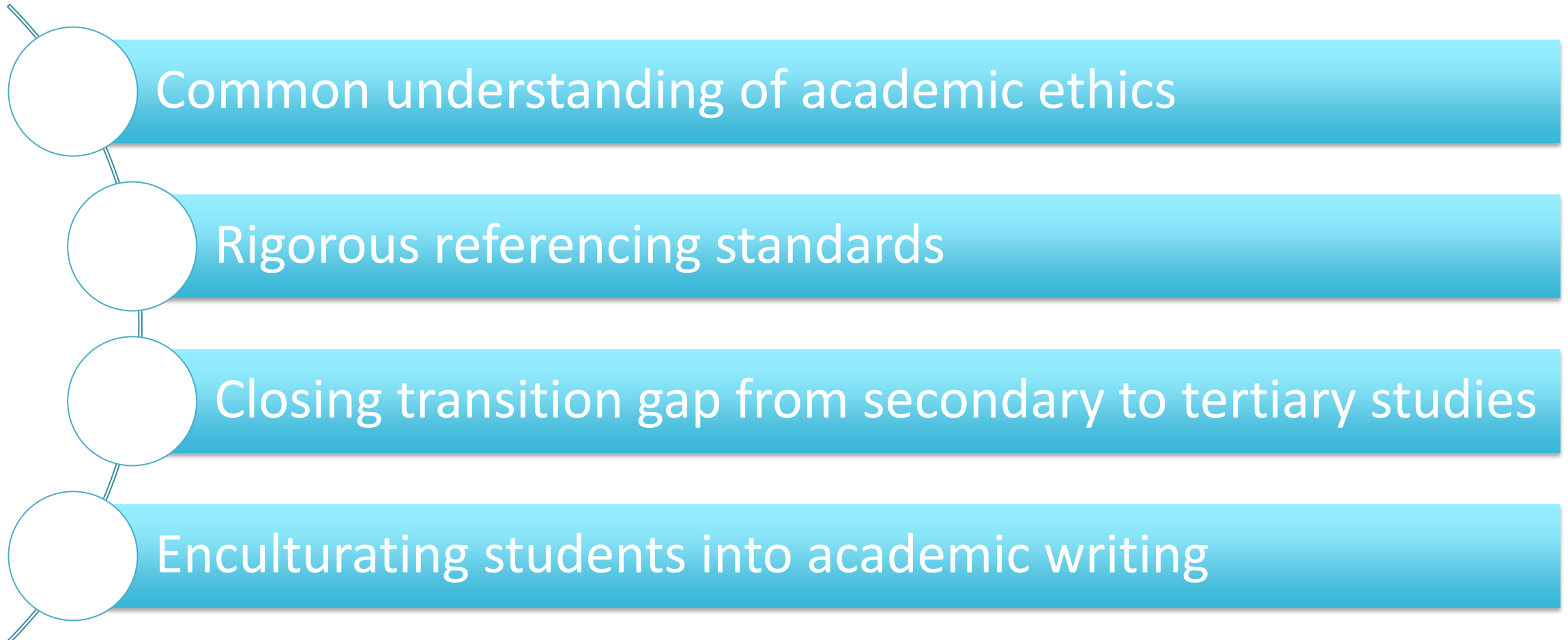


Social background

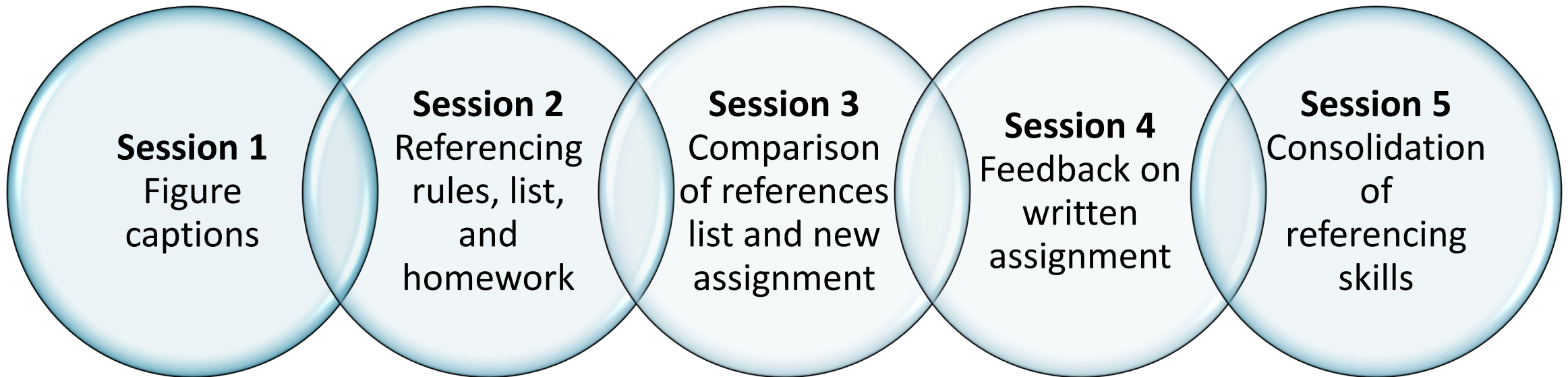


Prior education

1.2. Motivation and purpose



1.3. Session sequence



2. Writing figure captions

Group analysis of figures and tables with captions

Group analysis of references in captions

Students draw a graph, chart or diagram

Students write a caption for their figure

They write a sentence for anchoring the figure in the text

2. Worksheet for writing figure captions

Draw your own figure here. Include an appropriate caption for your figure.

Figure 1: _____

Write one sentence that anchors your figure in the text. Start your sentence with:

Figure 1 shows ... _____

Figure 4: Worksheet for writing figure captions

3. Referencing rules and following a style sheet

Referencing rules and style sheet [1]

Definition of plagiarism

Students read original text (e.g. [2, p. 23])

Students compare acceptable and unacceptable paraphrases

Teacher presents examples of various types of quotations

3. Referencing rules and following a style sheet

Reasons for
quotations

Signal
phrases

In-text
references

Length of
quotations

Accuracy

No
shortcuts

4. In-text referencing practice

Short extract from [2, pp. 19–20]

Topic: World air traffic growth

Each student writes original paragraph on topic

Each student paraphrases from extract and references it

Students compare their texts

Students ask questions for clarification

5. Composing a list of references

Explanation of style sheet and sample entries

Homework:

Study style
sheet

Use raw
bibliographical
data

Create list of
12 references

6. Written assignment and corrections

Technical commentary on effects of GAI on aviation

Model text
on different
topic

Objective of
practising
source
integration

Corrections,
grading, and
feedback

7. Consolidation of referencing skills

In-class writing task

Students synthesise information

Three source texts [3, 4, 5]

Task adapted from [6, pp. 89–90]

Strengthening learners' referencing skills

Reflection on writing and source integration

8. Applications and transfer of referencing skills

Assignments in English language classes

Project reports and presentations

Graduation phase

- Graduation thesis
- Presentation to the examination board

Work- or study-related writing tasks after graduation

9. Ethics beyond referencing

Academic ethics are not limited to referencing

Copyright

Ghostwriting

Conflicts of
interest

Research
design

Research
process

GAI tools
[cf. 7]

9. Ethics beyond referencing

Teacher	Students
Role model of academic rigour	Awareness of ethics
Discussion of copyright	Compliance with ethical code
Evaluation of information	Alertness to misinformation
Rules for GAI use in class	Responsible use of GAI

10. Conclusions: Skills taught

Avoiding plagiarism

Protecting academic integrity

Producing precise references

Following a style sheet



Figure 5: Graz International Airport, 31 May 2006

10. Conclusions: Referencing at universities

- Central aspect
- Handling of source material
- Evaluation of literature
- Transferability to other disciplines
- Tailoring literature & style sheet
- Generic worksheet, phrases, & activities

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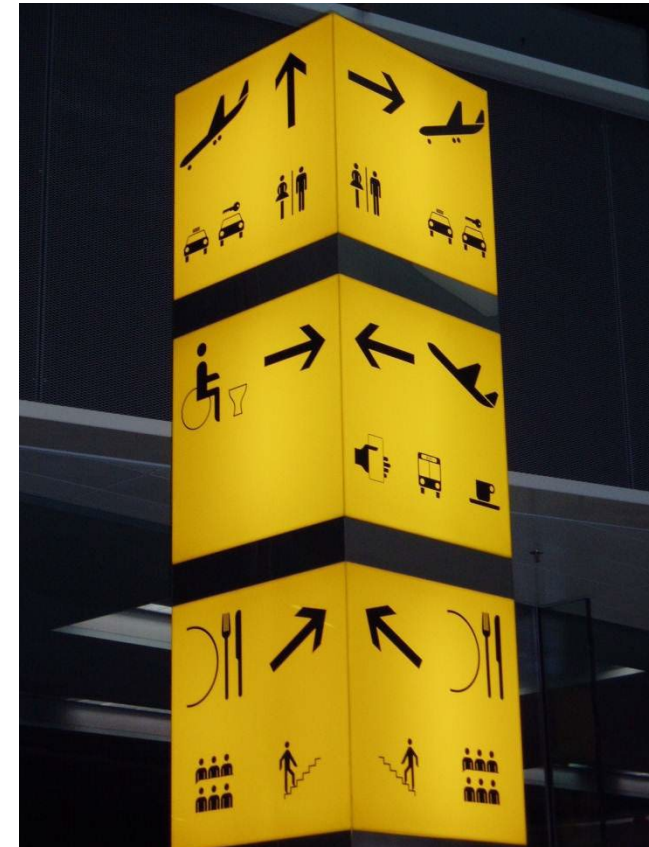


Figure 6: Directions at Graz International Airport, 12 March 2009

References

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- [5] Sinclair, I., & Gregson, P. (2001). Fatigue optimization in aerospace aluminium alloys. In B. Cantor, H. Assender, & P. Grant (Eds.), *Aerospace materials: An Oxford-Kobe materials text* (pp. 119–149). *Series in Materials Science and Engineering*. Institute of Physics Publishing.
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