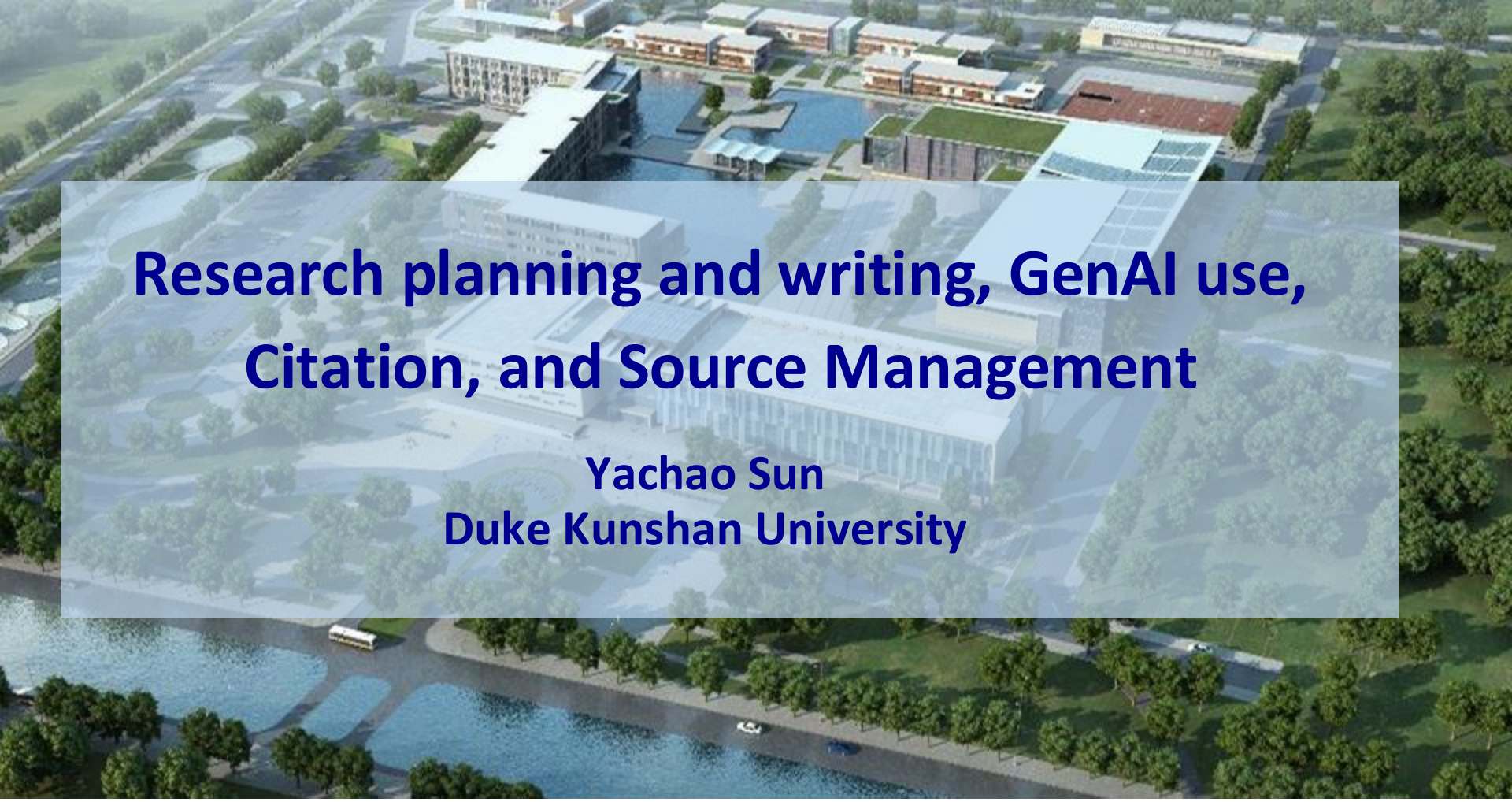

Research planning and writing, GenAI use, Citation, and Source Management

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Why Plan Your Research

Stay Focused
Define a specific question, prevent topic drift

Save Time
Task order, avoid rewriting

Spot Roadblocks Early
IRB approval, data access

Ensure Academic Integrity
Citation checks, AI verification

Smooth Collaboration
Shared outline, minimize duplicate work

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How to Plan

Clarify the Objective

Purpose statement, research questions

Review Literature Efficiently

Reading list, reference manager with tags

Design Methodology Early

Study type, variables, data sources, flowchart

Build Realistic Timeline

Project steps, buffer days

Audit Resources & Budget

Lab space, software, field travels

Address Ethics & Compliance

IRB, data-sharing requirements

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Write Your RQ (1 is OK)

- Open a doc on your laptop.
- **Write 1 research question (RQ)** for a topic you are investigating.
- Keep it one sentence. Don’t overthink—first draft is fine.

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What Makes a Good RQ?

- Clear research focus **Population**, measurable **IV/DV**, defined **Scope** (time/place).
- Aligned to a feasible **method** and data source.
- Answerable within your **time/resources**.

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Revise Using the Pattern

- Pattern: **“In [Population], how does [IV] affect/relate to [DV] within [Scope]?”**
- Rewrite your RQ using the pattern.
- Underline any vague terms and replace them with specifics.

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RQ Examples (Vague → Specific)

- Vague: "Do phones affect grades?"
- Specific: "In **DKU undergraduate students (Population)**, how do **nightly social-media minutes (IV)** relate to **GPA (DV)** during their **junior and senior years (Scope)**?"
- Vague: "Is tutoring helpful?"
- Specific: "Among **third-year biology majors** in **Fall 2025**, does **weekly peer tutoring** improve **final exam scores** compared to **no tutoring**?"

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Method Match (Write Yours)

- **Write down** the **primary method** you'll use (e.g., survey, experiment, interviews, content analysis, secondary data).
- One phrase or sentence is ok.

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Why This Method?

- **Rationale:** Why this fits your RQ.
- **Validity:** does it capture the construct?
- **Reliability:** would it give consistent results?

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RQ ↔ Method Matches (Examples)

- "Effect of 10-min warm-up on 5K times" → **Experiment / quasi-experiment**.
- "Themes in climate TikToks" → **Content analysis**.
- "Students' opinions on GenAI in academic writing" → **Interviews / focus groups**.
- "Relationship between sleep and GPA" → **Survey + secondary GPA data**.

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Who/Where/What Data?

- **Participants / setting / data sources**:
  - Who (eligibility)?
  - Where (context)?
  - What data (files, platforms, archives)?

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Why These Sources?

- **Rationale:** representativeness & relevance.
- **Validity:** do they map to your constructs?
- **Reliability:** stable collection process & documentation.

Data Collection Method(s)

- List the **instrument(s)**: survey, interview guide, observation protocol, dataset download, lab measure, etc.

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Why These Collection Methods?

- **Fit to RQ & variables**.
- Burden on participants, ethics/IRB needs.
- Error reduction (training, piloting, clear procedures).

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How You'll Collect (Practical Steps)

- **When/where:** timeline & location/platform.
- **How many:** target N / sampling.
- **Procedure:** step-by-step (recruit → consent → collect → store).

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Data Analysis Method(s)

- Stats (t-test/ANOVA/regression), thematic analysis, content analysis, time-series, network analysis, etc.
- Name **primary** + any **secondary** approach.

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Why These Analyses?

- Link **method → variable type**.

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How to Analyze to Answer the RQ

- Define **outcomes/metrics** (e.g., mean difference, effect size, themes).
- Plan **validity & reliability** checks (inter-rater reliability, robustness, sensitivity).
- Pre-write **one figure/table** you expect to report.

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Strong Proposal = Project Backbone

- If RQ, method, data source, collection, analysis, and quality checks are clear……you have a **workable proposal** and a roadmap.

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Implement Before Drafting

- Build instruments, pilot, finalize protocol.
- Collect data per plan; keep a **methods log** (dates, changes, issues).

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Ready to Draft

- **Literature review** should be conducted before research planning.
- After data collection & analysis:
- Draft **Methods** first from your logs, then **Results**, then **Intro/Discussion**.

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GenAI in Academic Writing

GenAI’s Role

- Great for **brainstorming, outlining, clarity edits, structure**.
- Not a source of facts; **you verify** and decide.

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Cautions

- Don’ t paste **sensitive/raw data** into open tools.
- Beware **invented citations** and outdated info.
- **Document use** (tool/model, date, purpose). You own the outputs.

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Strategies for Using GenAI

- Give **audience**, **structure**, **scope**.
- Ask for **alternatives** and **assumptions to avoid**.
- Require **placeholders** for citations to check later.

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Do It Now

Prompt:

"For **[your audience]**, create a **3-section outline** (Intro, Methods, Results) for my RQ: **[paste your revised RQ]**. Include **bullet points** per section and **questions I should answer** during drafting."

- Keep **your ideas & critical thinking** at the center.
- **Good Prompts Keep Humans in Charge**

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Storing & Managing Citations/References (EndNote)

Use EndNote to Manage & Store

- Centralize PDFs, notes, and metadata.
- **Insert citations** as you write; auto **bibliography**.
- **Switch styles** (APA/Chicago) instantly.

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How to use Endnote

Example:

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Thank you!

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