

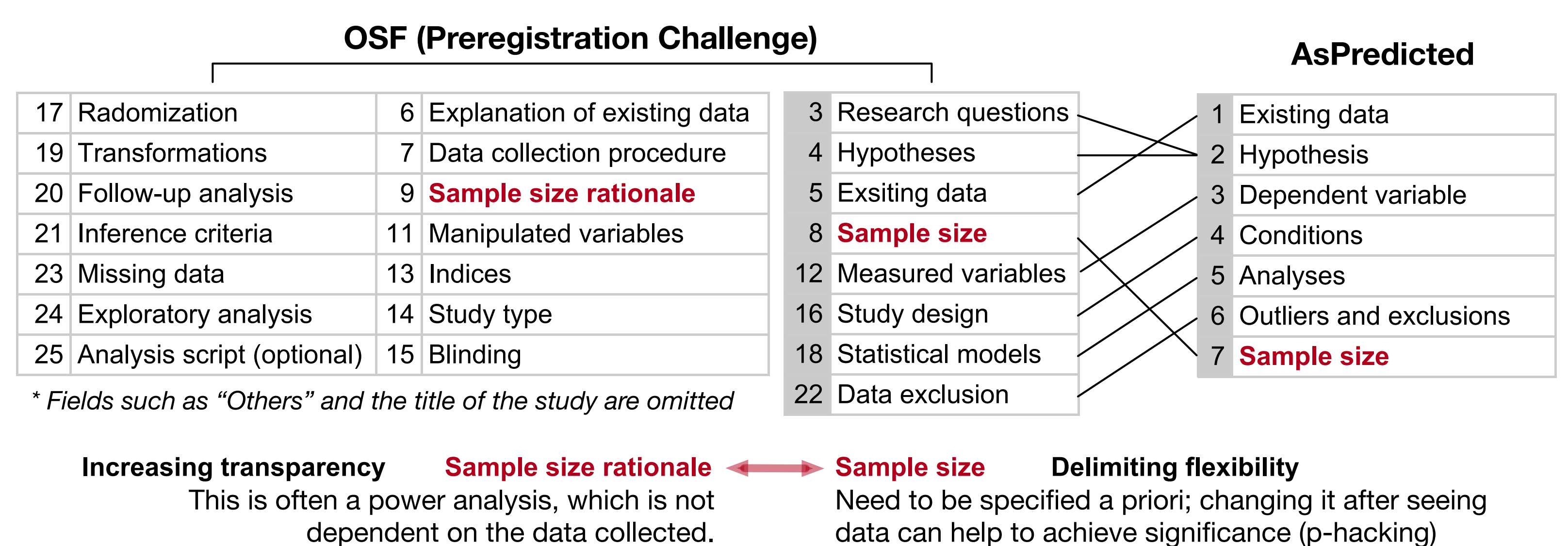
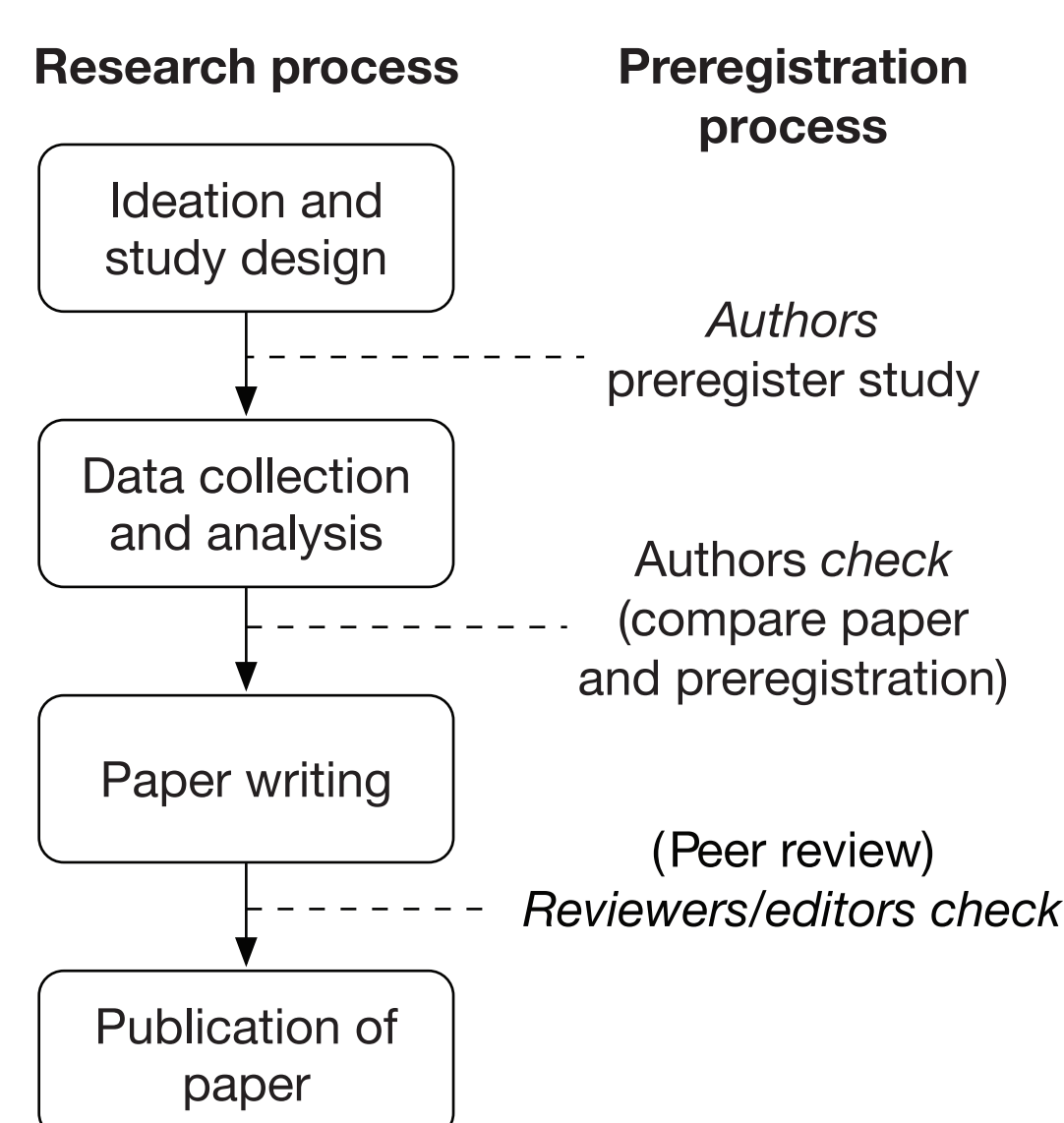
To achieve the goal of **preregistration in practice**, we need to support multiple perceived **purposes** of this tool, with considerations for different **user roles** and **adoption barriers. And what about HCI?**

Designing for Preregistration: A User-Centered Perspective

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Preregistration has been proposed to be a tool for addressing the replication crisis, mainly used for experimental studies. However, it is unclear how well preregistration is working for its users.



To investigate preregistration in practice, we interviewed 14 (7F, 7M) users of preregistration.

Title	Discipline	Have written a preregistration?	Have reviewed/edited a preregistration?
PhD student	Psychology	Yes	Yes
Assistant professor	HCI	No	No
Associate professor	Behavioral Econ		Unclear
Professor			

We found two main purposes that users thought preregistration was for.

1. Delimiting flexibility
 "So I feel like people are confusing disclosure, which often you want more the better, but I think the preregistration should be reserved for things that it's really important to know ahead of time... power analysis is not relevant for preregistration" [P10]

Design for multiple purposes
 If preregistration templates reflect what the user considers to be the primary purpose, we can make them *dynamic*: showing only the questions that conform to the user's choice of purpose, be it delimiting flexibility or increasing transparency.

2. Increasing transparency
 "I think [statistical] power is one of the biggest mistakes that are made in psychology, so not asking people to actually prove that they have the power of the test is a mistake..." [P6]

Design for different user roles
 For authors who check preregistration and the manuscript *"point-by-point"*, they may benefit from a tool that integrates experimental design with writing. For reviewers/editors who *query* the preregistrations, an interactive tooltip that calls out preregistered protocol in a manuscript may be helpful.

* In addition, different user roles (authors or reviewers) interact with preregistrations differently; barriers to adoption exist along discipline lines.

Design for different disciplines
 Some users who do non-experimental work find preregistration alienating; for others, templates or examples do not exist. Community-based approaches such as workshops may help develop templates and norms for non-experimental research.

We make design recommendations:

