

Practical and Theoretical Considerations in the Design of a System for Managing Peer Feedback on Oral Production

Ralph L. ROSE
<rose@waseda.jp>

Center for English Language Education (CELESE)
Waseda University Faculty of Science and Engineering
Tokyo, Japan



Overview

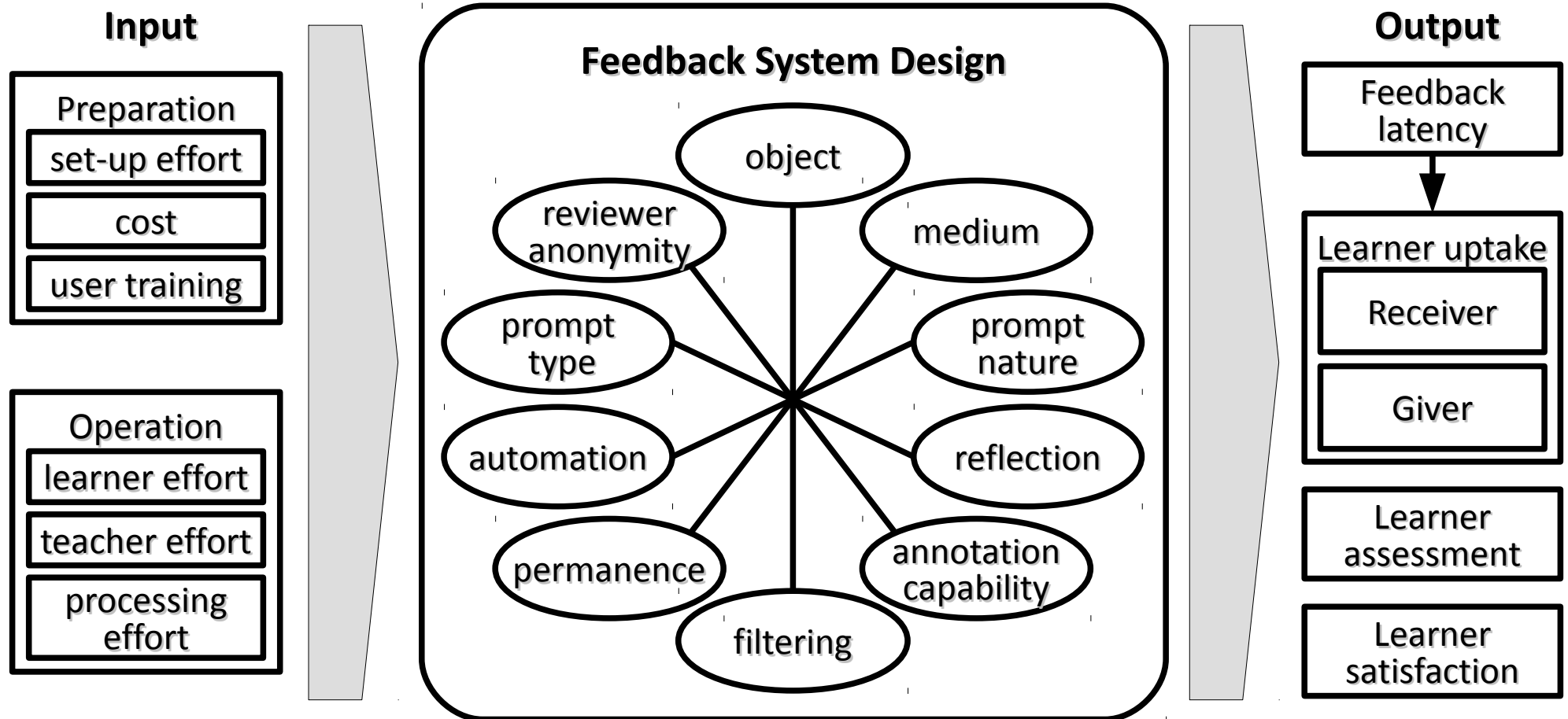
- Background: Peer feedback
- Peer Feedback Management Schema
 - Structure
 - Design components
- Example: Feedbackker
- Implications

Peer Feedback

- Information given to learner by peers about their performance, intending to help learner sustain or improve performance (hence, formative)
- Benefits
 - Promotes critical thinking (Orsmond, et al. 2000)
 - Encourages higher audience awareness (Yeh, et al. 2008)
 - More informative (Bartels 2003; Tsui and Ng 2000)
 - Complements teacher's feedback (Stefani 1998)
- Implementation
 - Influenced by many factors
 - No comprehensive guide
 - Goal of present work

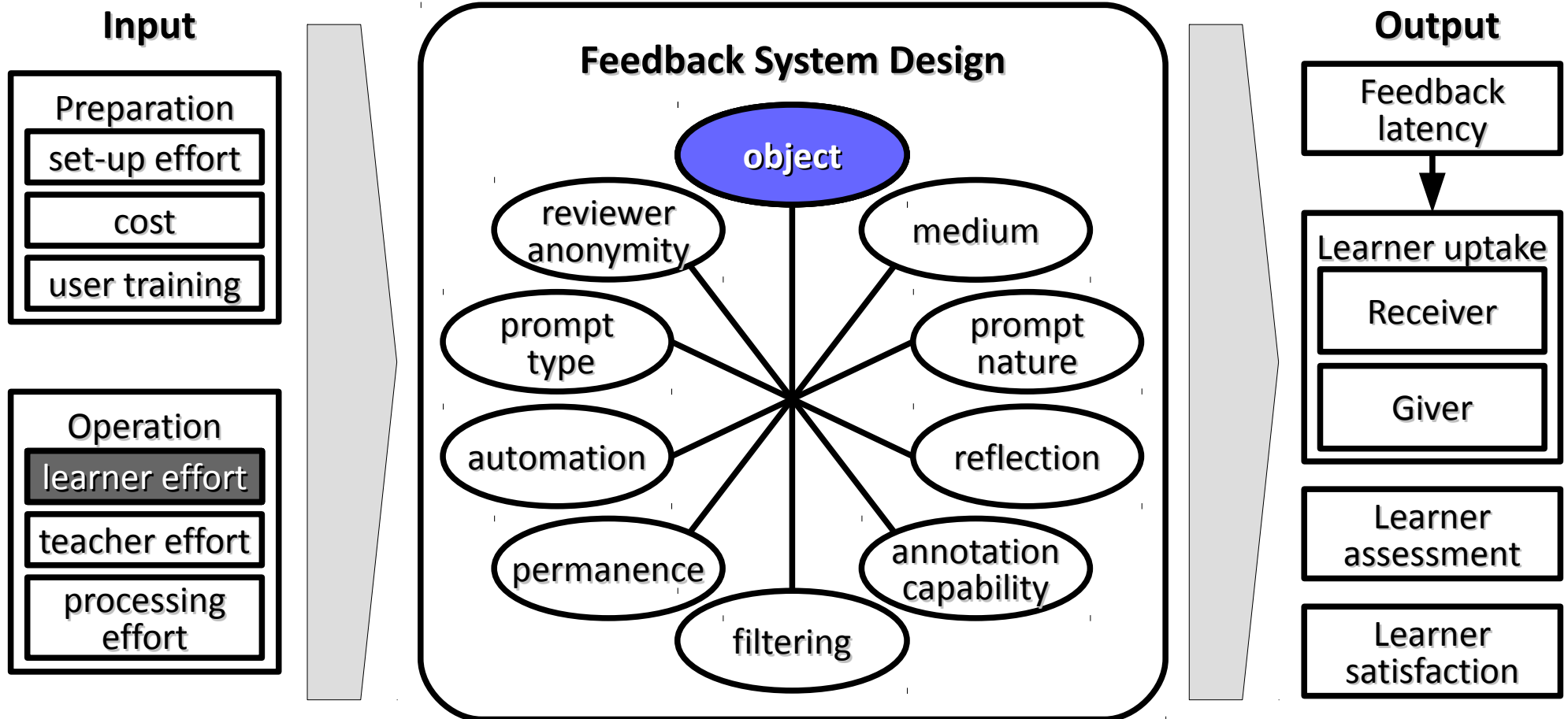
SIPFS

Schema for the Implementation of Peer Feedback Systems



Object

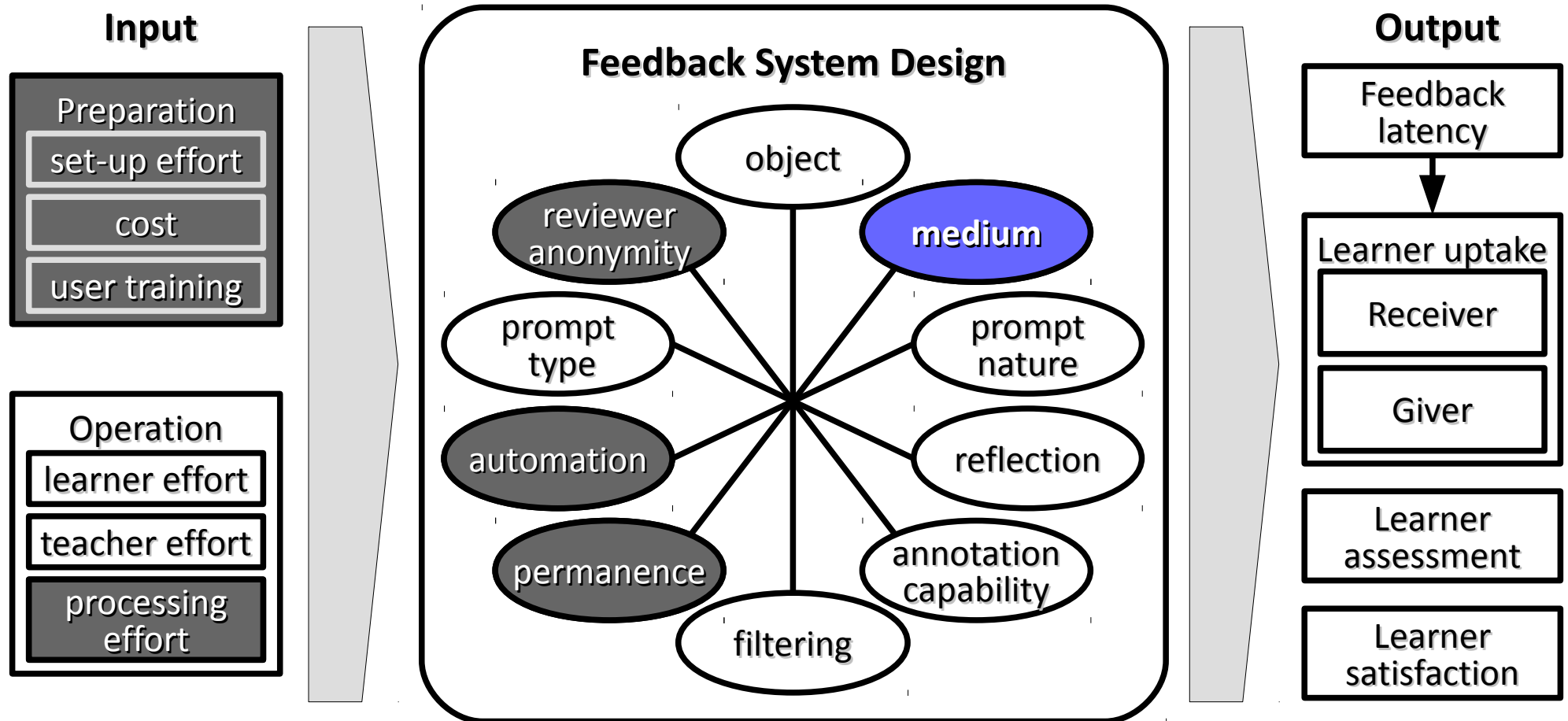
The actual object that students will observe and provide feedback on



Written documents or oral performance is typical, but object could be anything (e.g., project work). Directness of reviewer's observation (i.e., looking at document vs. memory of oral presentation) might affect feedback quality.

Medium

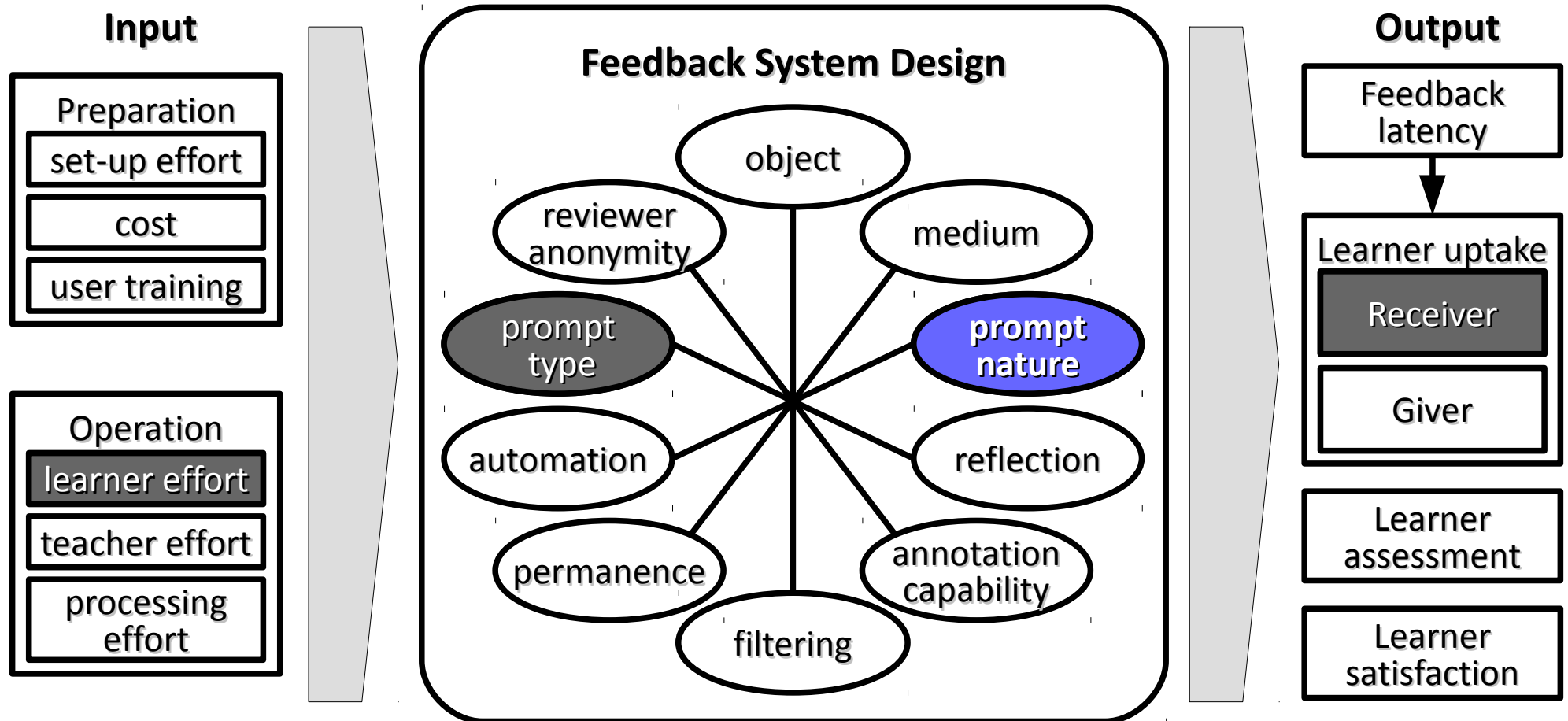
The medium through which students will provide peer feedback



Mixed preferences: written feedback (DiGiovanni and Nagaswami 2001) vs. face-to-face (Tuzi 2004). Wide options exist (direct oral feedback, handwritten feedback, written feedback via computer, audio or video feedback via computer) with wide implications for design, preparation and effort.

Prompt nature

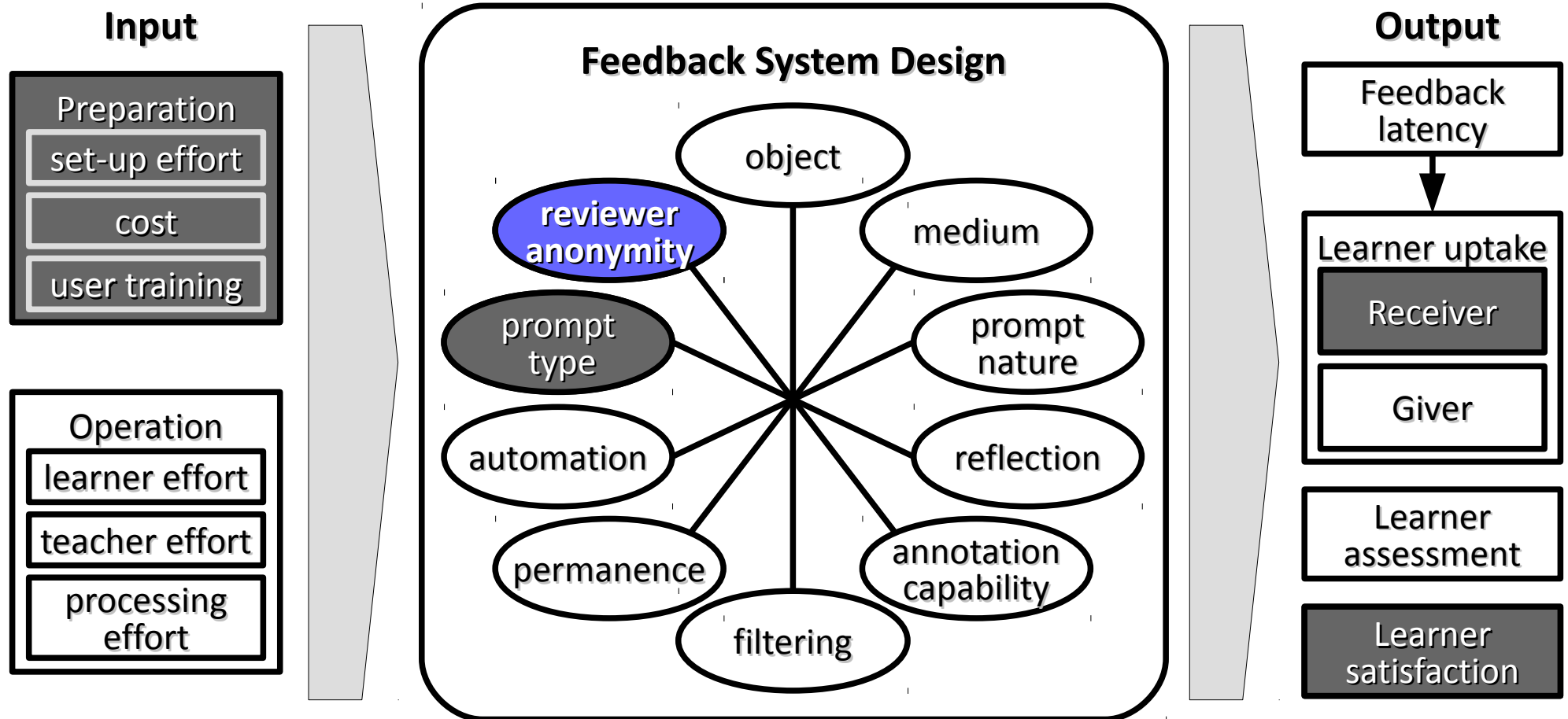
The nature of the feedback elicited by the prompt (e.g., corrective, evaluative)



Suggestive rather than corrective feedback with justification leads to greater learner uptake (van der Pol et al 2008, Tseng and Tsai 2007, Gielen et al 2010). This can be controlled with focused questions in appropriate prompt format, but may increase learner effort.

Reviewer anonymity

Whether or not students provide feedback to their peers anonymously

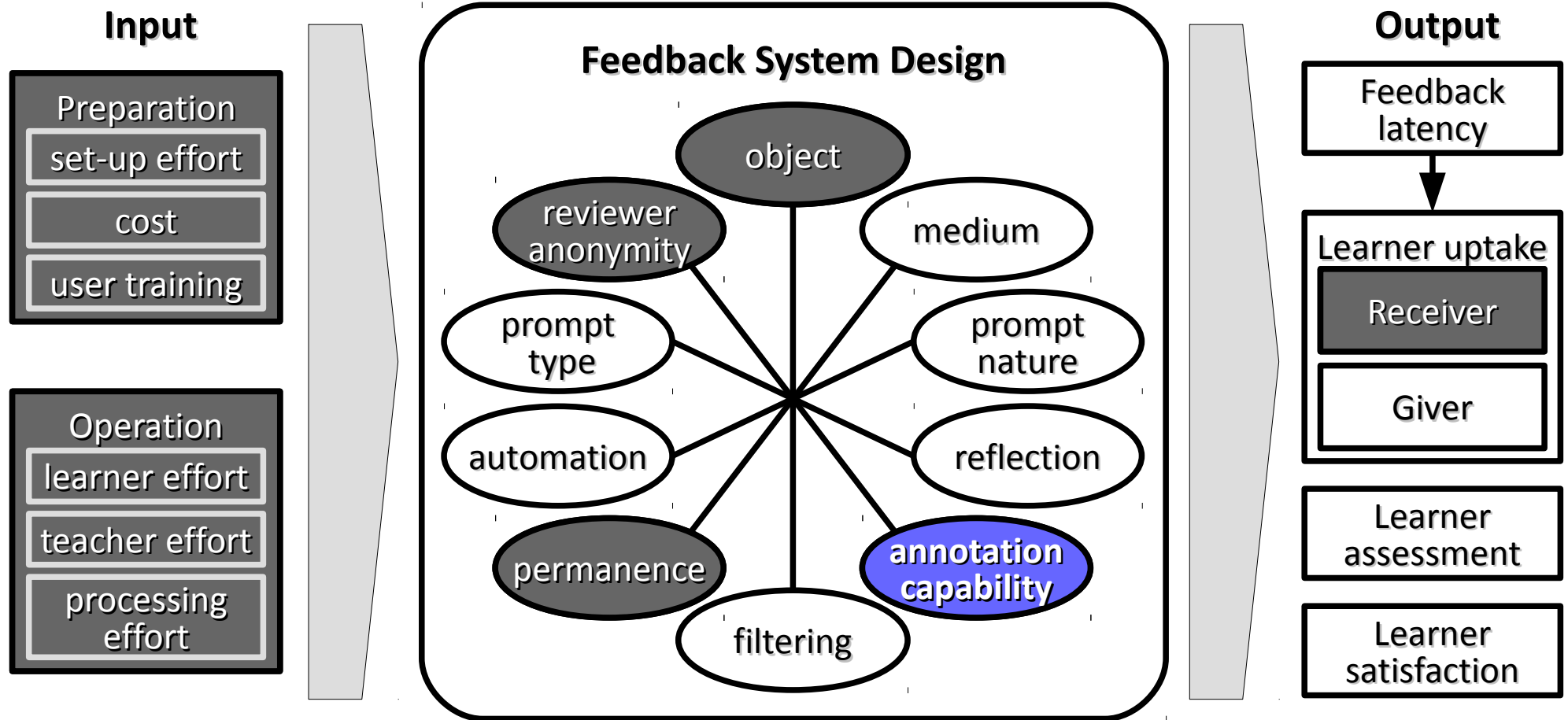


Learners feel anonymity is important (Guardado and Shi 2007, Ballantyne et al 2010, Sullivan and Pratt 1996, DiGiovanni and Nagaswami 2001); Learner uptake is higher (Lu and Bol 2007).

Anonymity can be controlled through prompt type but may require high preparation.

Annotation capability

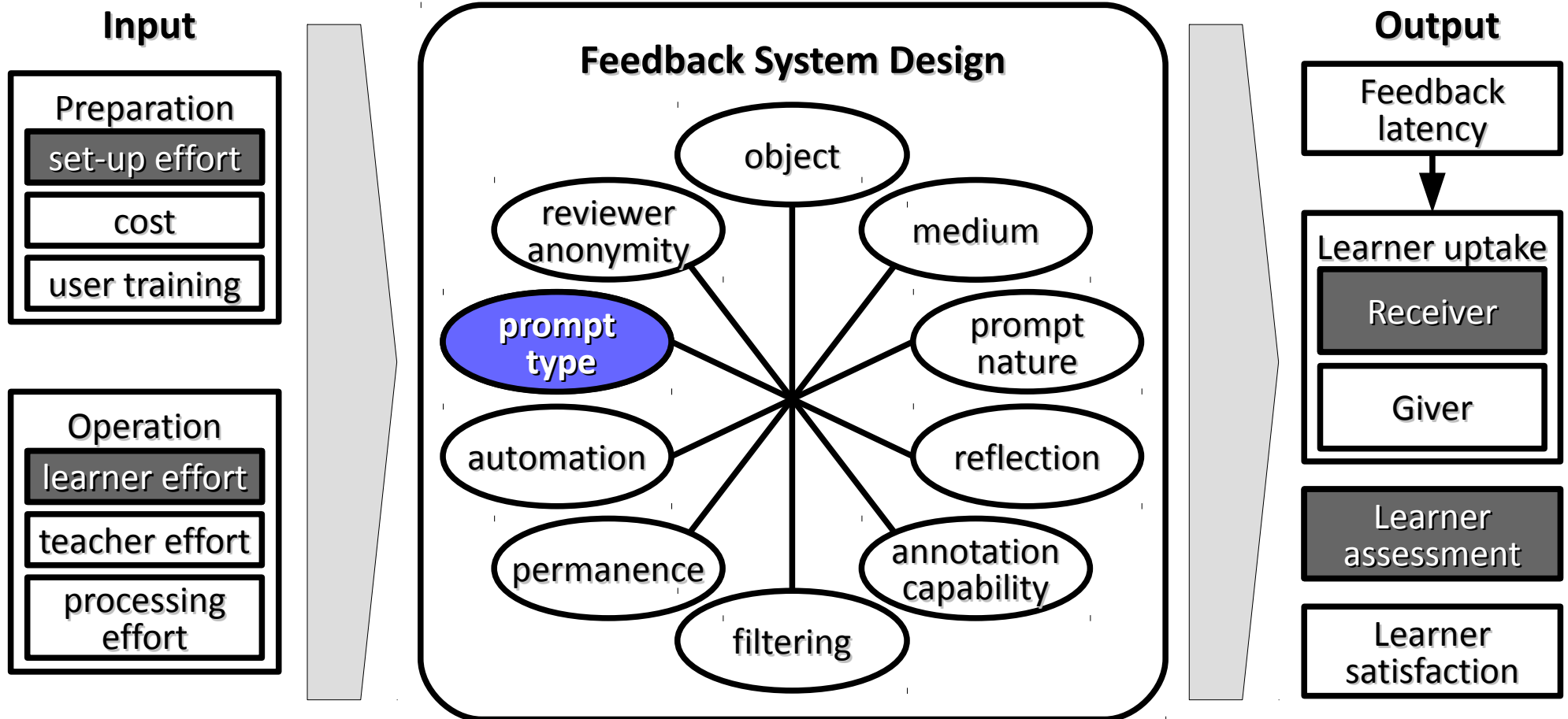
Whether the object can be annotated with explicit, located feedback



Contextual feedback leads to greater learner uptake (van der Pol et al 2008). Possibilities depend on object: handwritten docs easy, digital docs more difficult, oral performance most difficult. Advanced systems require much preparation and effort; may increase permanence but decrease anonymity

Prompt type

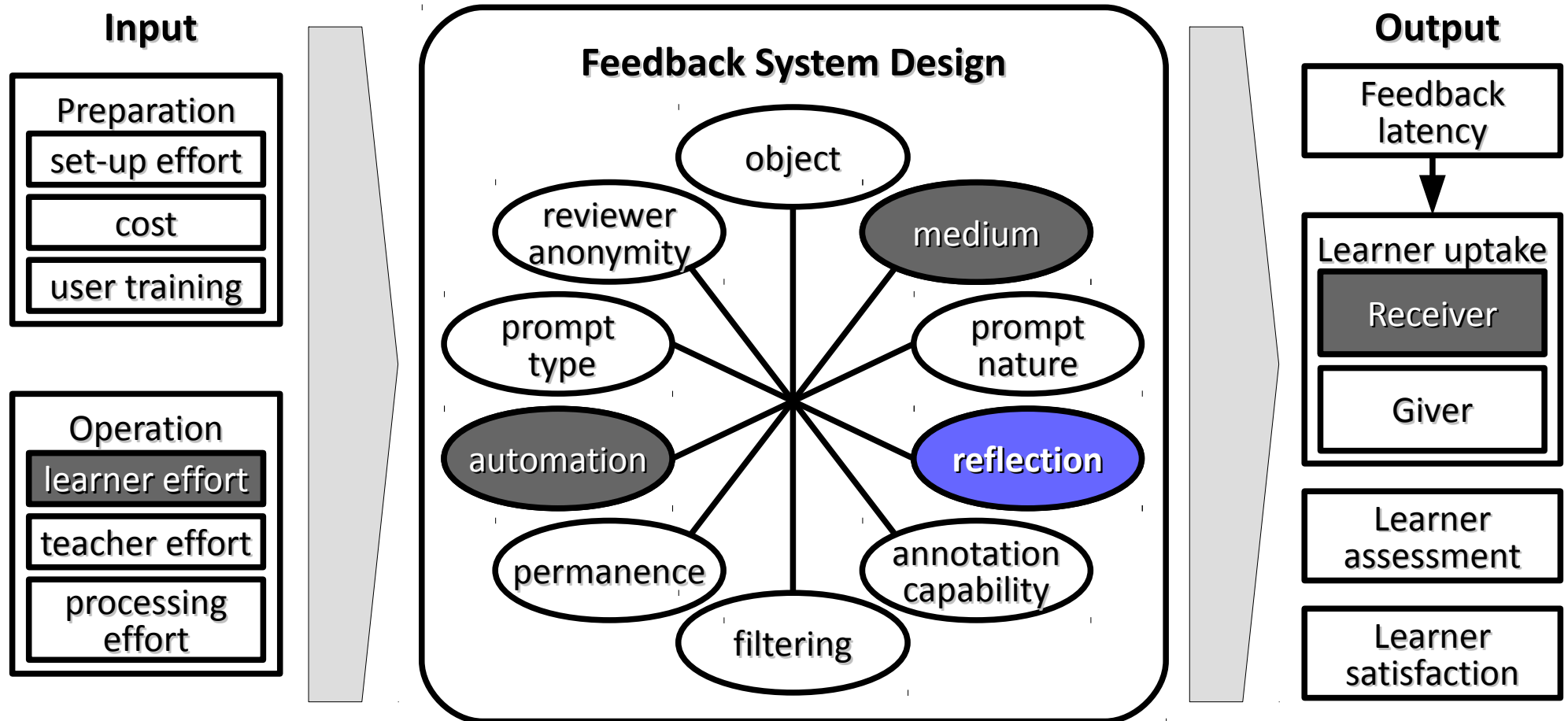
The type of prompt used to elicit feedback



Fixed-response prompts require less learner effort, provide useful learner assessment information (cf., Cho and Schunn 2007), but may have less learner uptake. Free response prompts require more learner effort, may have greater learner uptake, but is more difficult to assess.

Reflection

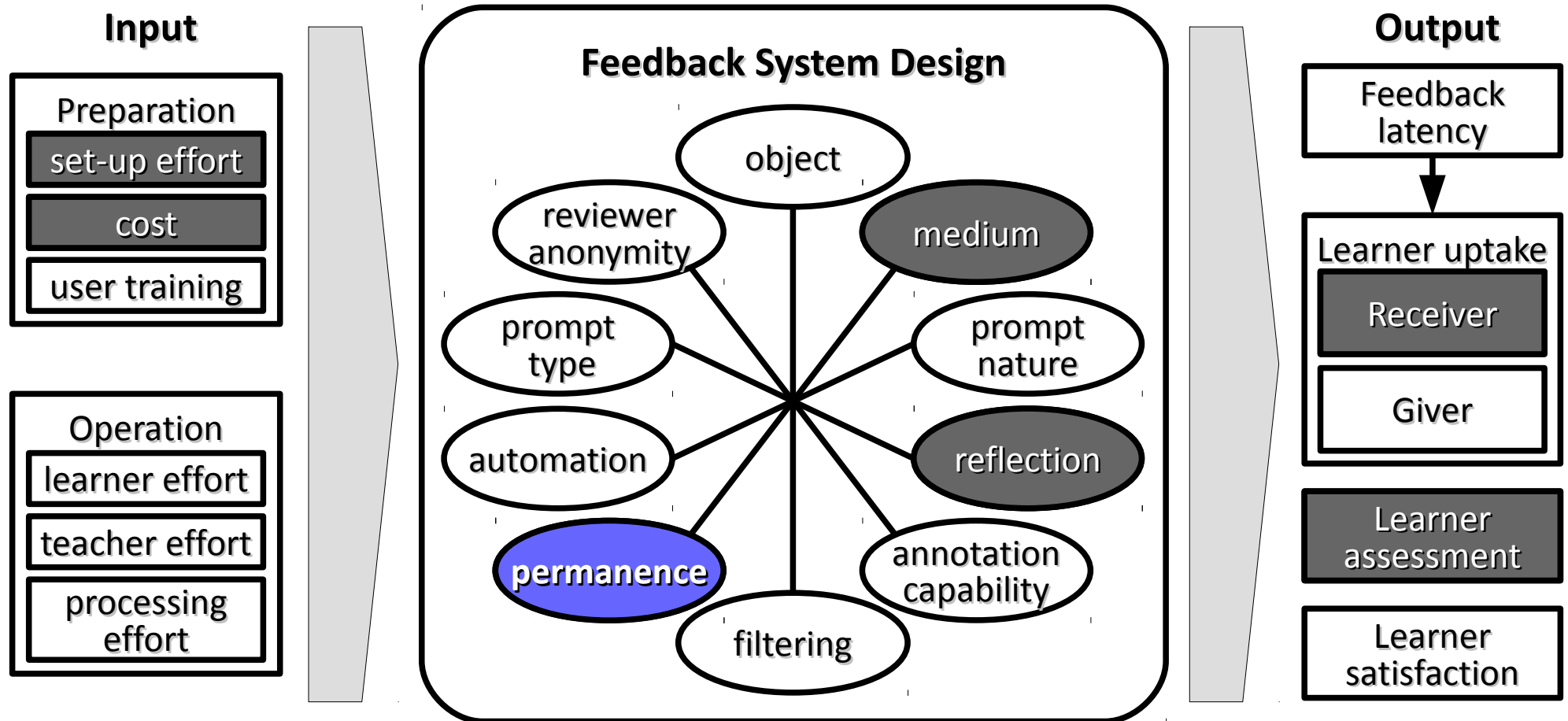
Whether or not the receiver is required to respond to feedback



Conscientious intake of feedback is necessary for learner uptake. Possibilities include feedback receivers rating or critiquing feedback. This interacts with medium and automation and may entail more learner effort. Research is inconclusive on beneficial reflective tasks (cf., Gielen et al 2010).

Permanence

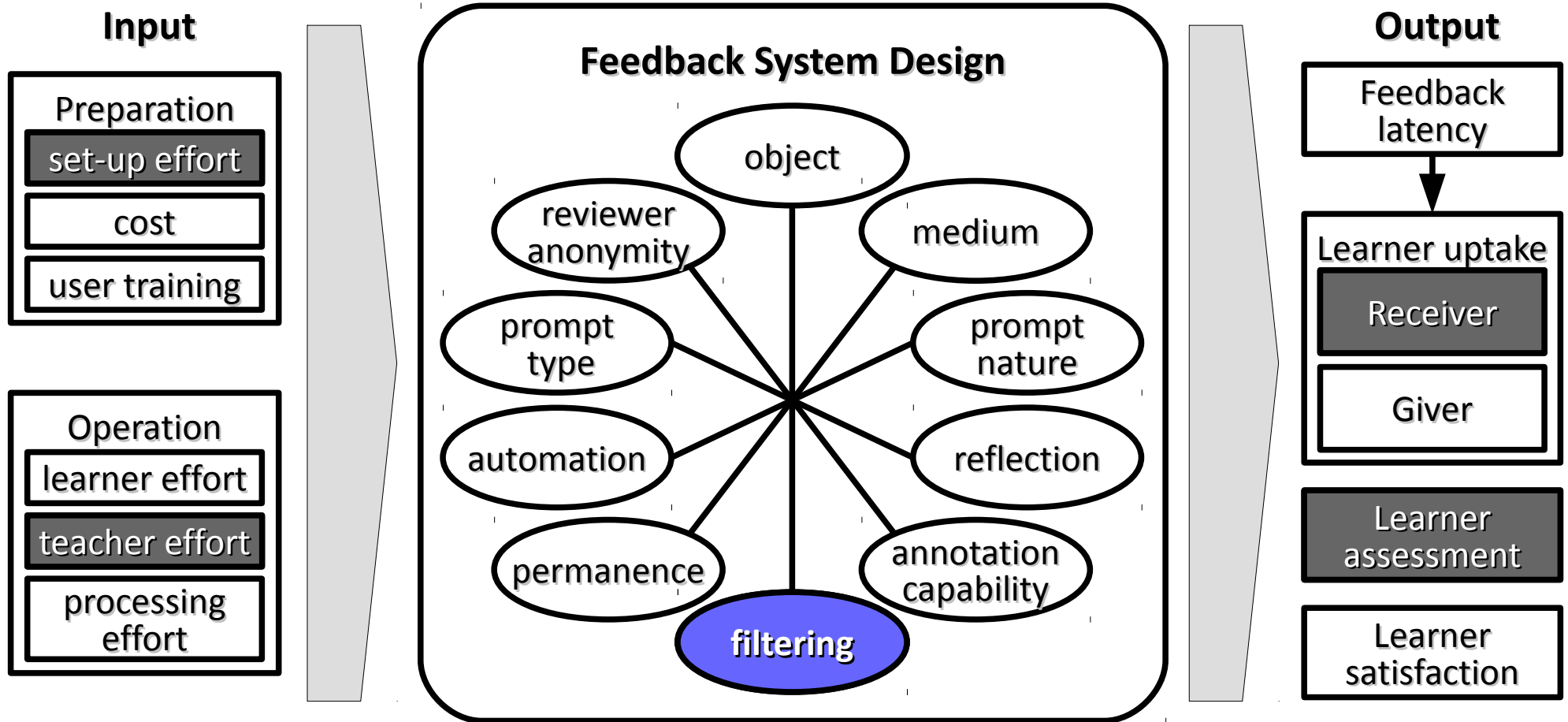
The duration which the explicit feedback is available to learners



The longer the feedback is available to the receiver, the easier it is to reflect and the more it may lead to uptake. Also, the more useful it may be for assessment. Face-to-face feedback is less permanent, but more permanent design may have more preparation effort and cost.

Filtering

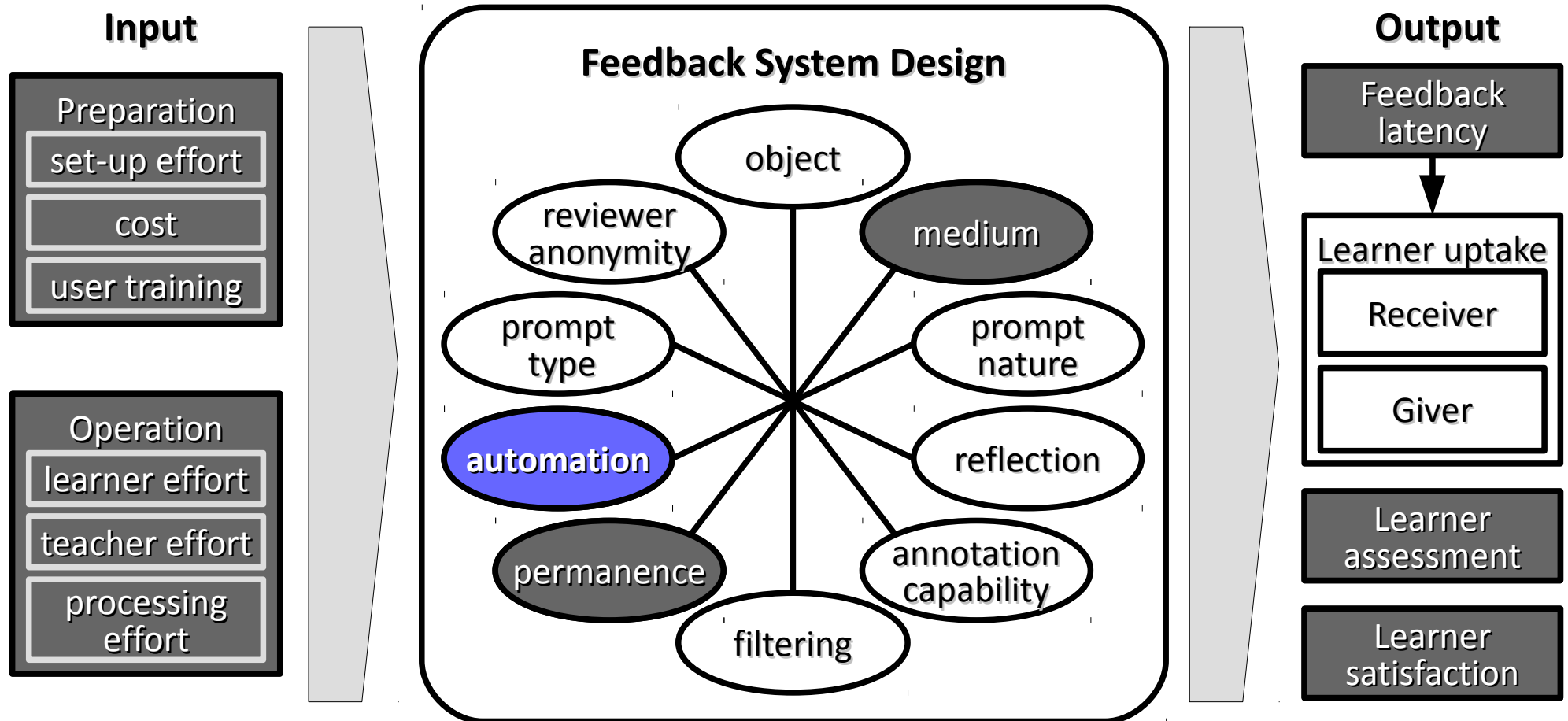
Whether the feedback is monitored or filtered before provided to receiver



Constructive, on-topic feedback is best for learner uptake, thus necessitating monitoring/filtering. Feedback might be arranged to form “Feedback sandwiches” (+/-/+; cf. Dohrenweld 2002, Docheff 1990). Monitoring may be necessary for grading. This increases preparation and operation effort.

Automation

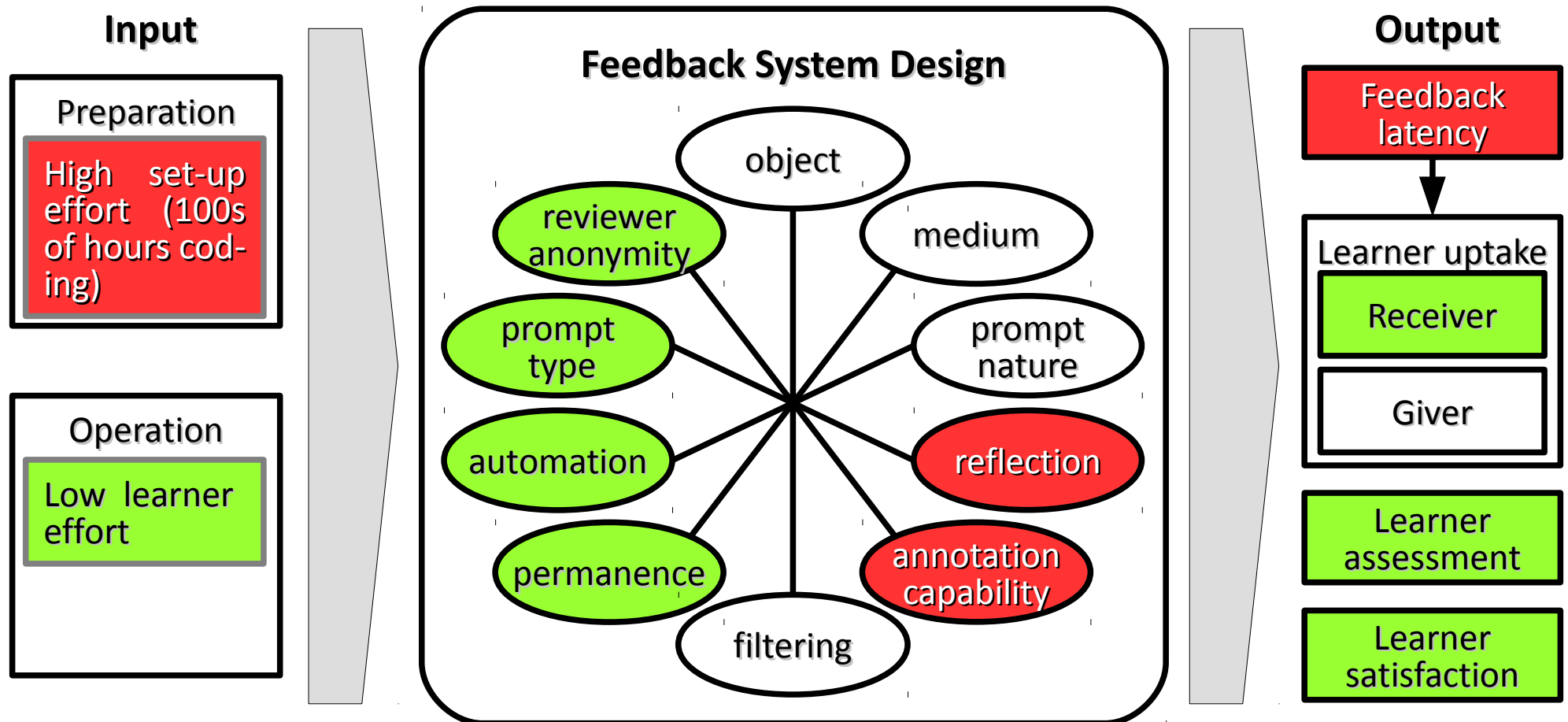
The degree to which processing of feedback is handled through automation



A manually managed system either limits the feedback options severely or requires massive effort to operate. An automated system may require massive preparation effort, but is permanent, minimizes latency, assists assessment, and satisfies learners through novelty of high-technology.

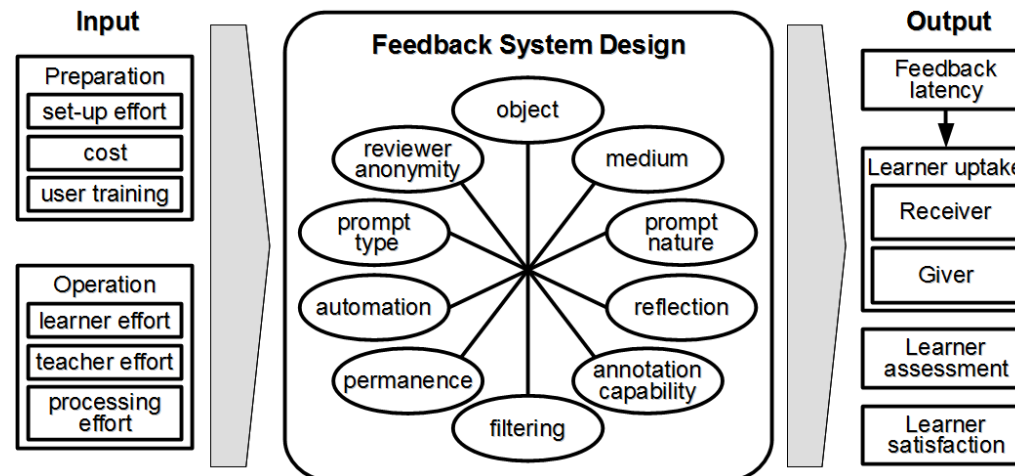
Example: Feedbacker (Rose 2009)

Overview: Students take performance notes on classmates' oral presentations; access web site to upload feedback through web form; feedback is collated automatically and anonymously.



Implications

- SIPFS can facilitate planning and implementation of peer feedback systems.
 - Based on learner needs and administrative limitations, Possible architectures can be determined
- Research gaps in SIPSF suggest places for future investigation.
 - Hypothetical relationships between various design components (e.g., object and prompt nature)



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