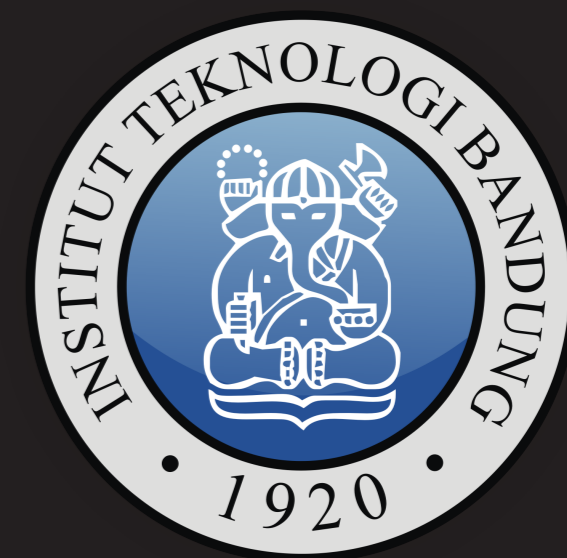


# Knowledge Management System Development with Evaluation Method in Lesson Study Activity

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## Introduction - Purposes

- ▶ Lesson study is made to improve teachers quality and professionalism.
  - ▷ There is teachers limitation to manage documentation every time lesson study is being held.
  - ▷ Problem is found that teachers still unable to check if they have learned lesson or knowledge.
  - ▷ Lesson study expected to give a continuous improvement for teachers and education.
- ▶ Knowledge management system is then proposed to solve those shortcomings by accomodating documentation and users' contributions.
- ▶ How to apply evaluation method in knowledge management system development?
- ▶ How to accommodate need and give continuous improvement toward both sides, teachers and KM system?

## Methods

- ▶ Lesson Study
  - ▷ Lesson study considered as a way to improve teacher's quality and professionalism. Lesson study performs a life cycle during its implementation. Every cycle does take much concern, and this research gives focus more in teachers' evaluation after conducting whole cycle.

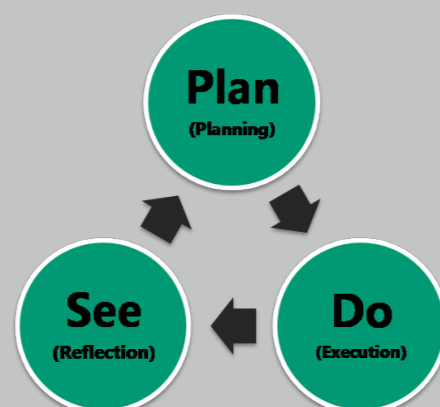


Figure 1: Lesson Study Life Cycle

- ▶ Global Knowledge Management Framework
  - ▷ This framework presents a suitable explanation for knowledge management system development. Its main components are stakeholders, processes (business process and knowledge processes), knowledge strategies, infrastructures and results.
  - ▷ Knowledge processes itself involve 3 main processes which are formed into a life cycle (Acquisition, Storing and Sharing) and being elaborated into 6 subprocesses (Identification, Capture, Validation, Organization, Sharing, Implementation).

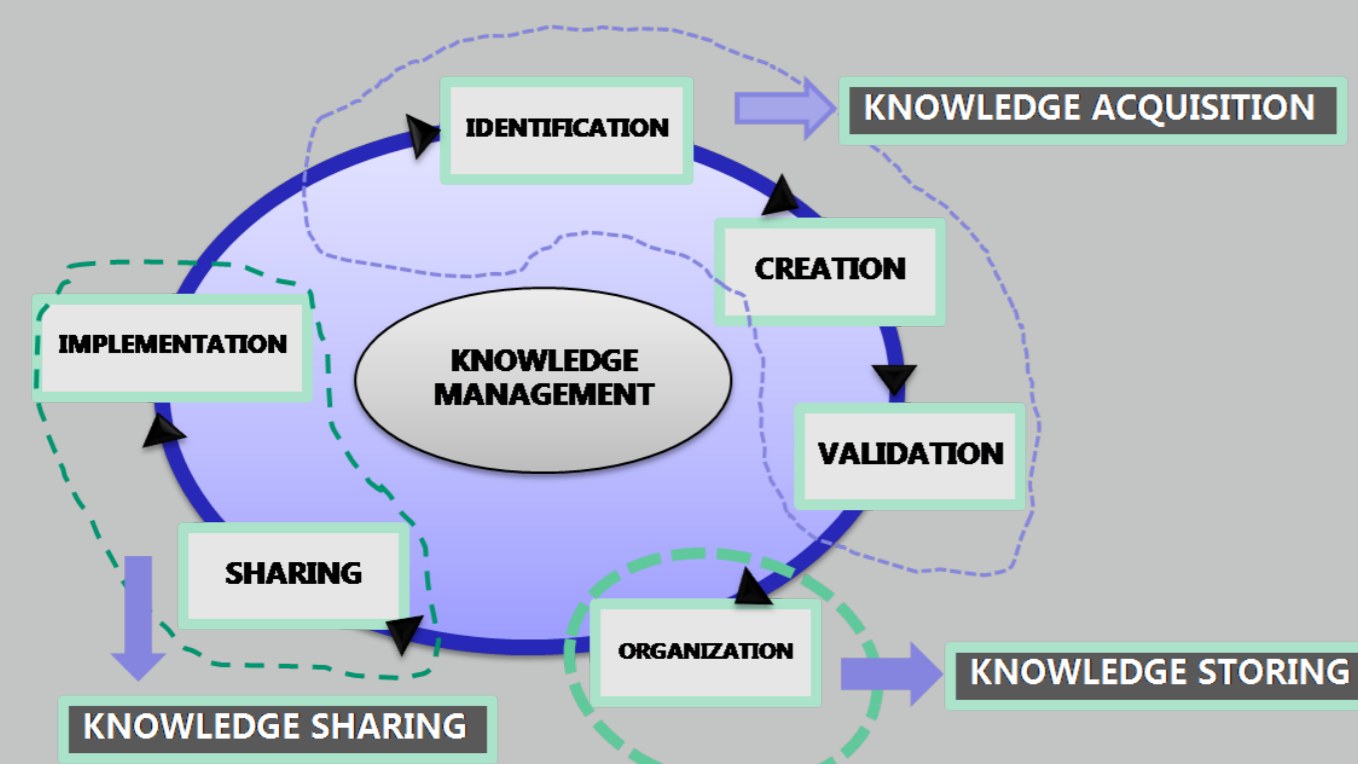


Figure 2: Knowledge Management Life Cycle

- ▶ Evaluation Method
  - ▷ Evaluation method takes place after Reflection area in Lesson Study, which asks observe teachers to take 4-steps test consists of online quizzes (Step 1,2) and contributions (Step 3,4). Evaluation method roles as a way to capture and validate knowledge.

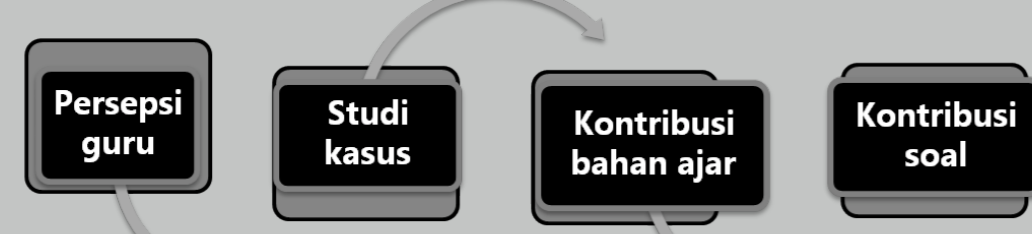


Figure 3: Evaluation Mechanism

## Conclusions

- ▶ KMS for lesson study activity may endorse teachers to enhance their experience towards a better quality and professionalism.
- ▶ Question-based (evaluation) method is considered as a way that enable capture knowledge process in KMS.
- ▶ Questions as part of evaluation must have an investigative character to push teachers creating better answers and knowledge.
- ▶ Recommendation of this research is prioritized for evaluation area for supporting capture knowledge process.

## Results: KMS with Evaluation Method Architecture

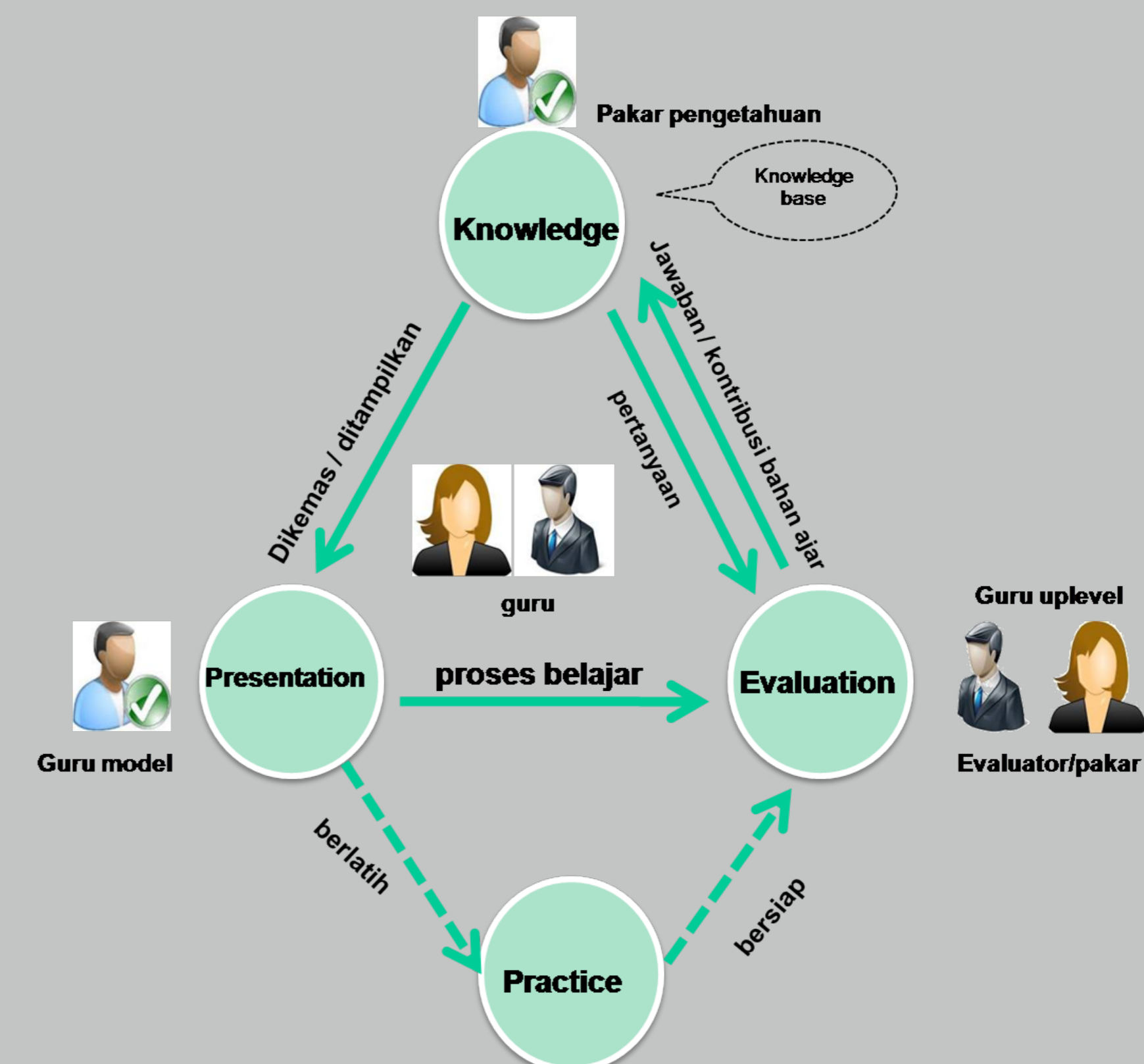


Figure 4: KMS with Evaluation Method for Lesson Study Architecture : Three Main Areas, Processes and Actors

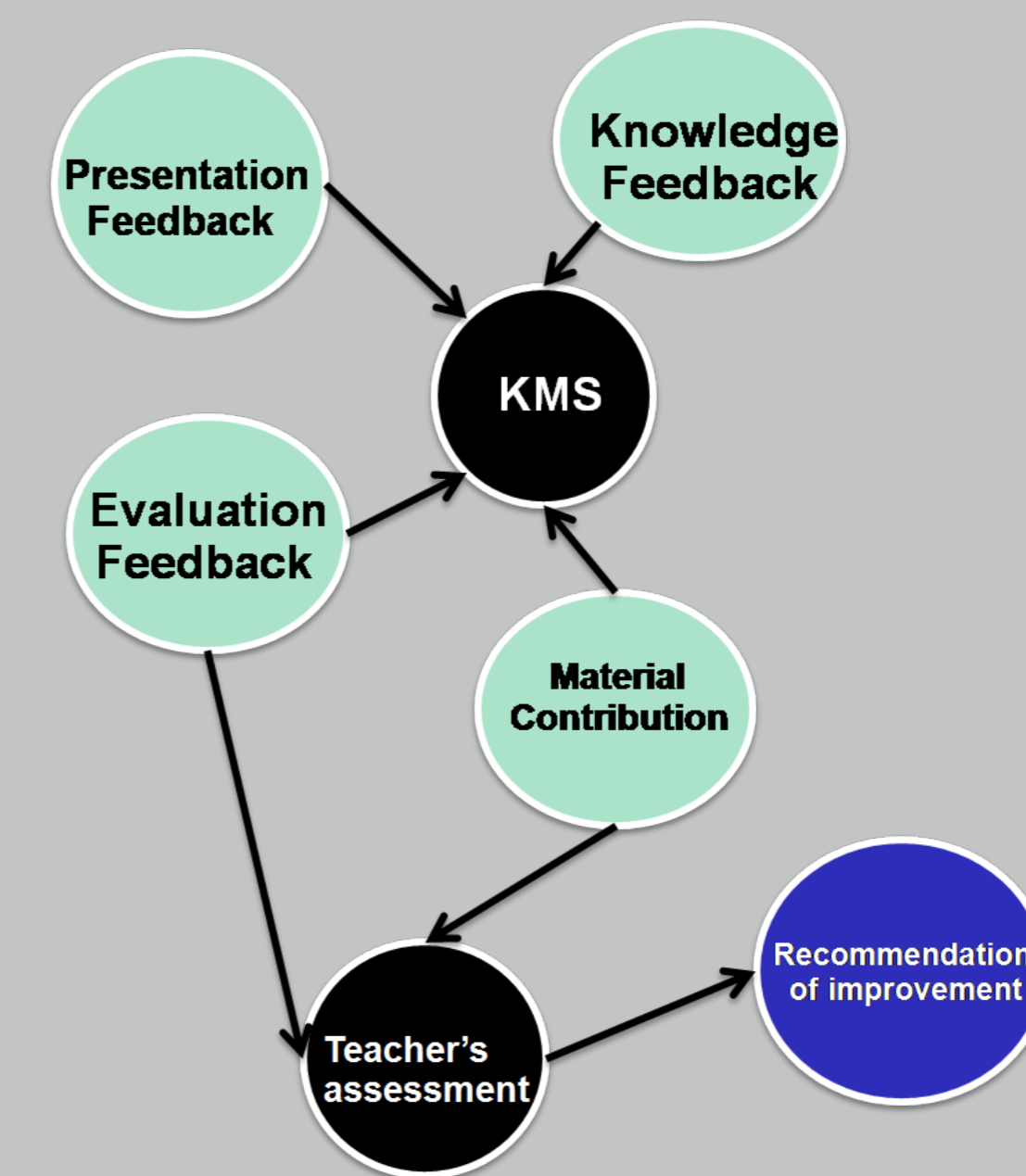


Figure 5: System Work Flow : Three Main Targets and Its Input Components

## Results: User Experience (User Feedback) - Expert Judgement

- ▶ User Feedback : How Teachers give comment to each area in architecture
  - ▷ Knowledge Area : "Stik Es Krim dan Pecahan Oleh Pakar Sufyani P."

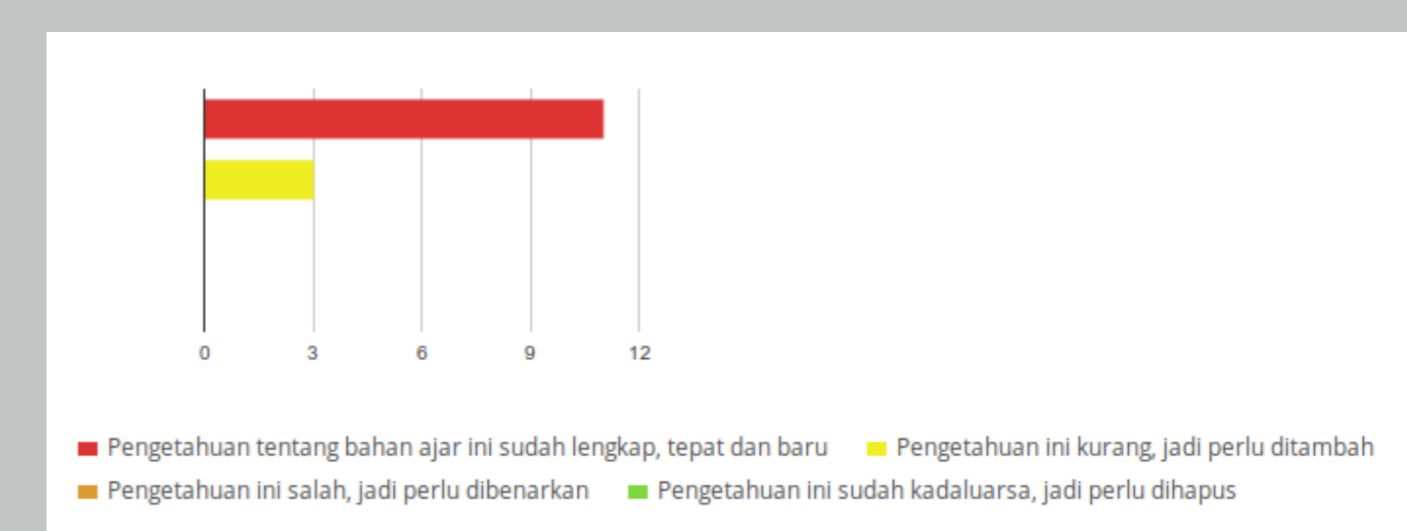


Figure 6: Results of Knowledge Area

- ▷ Presentation Area : "RPP dan Kriteria Penilaian untuk Materi Pecahan oleh Guru Model Engkos Koswara"

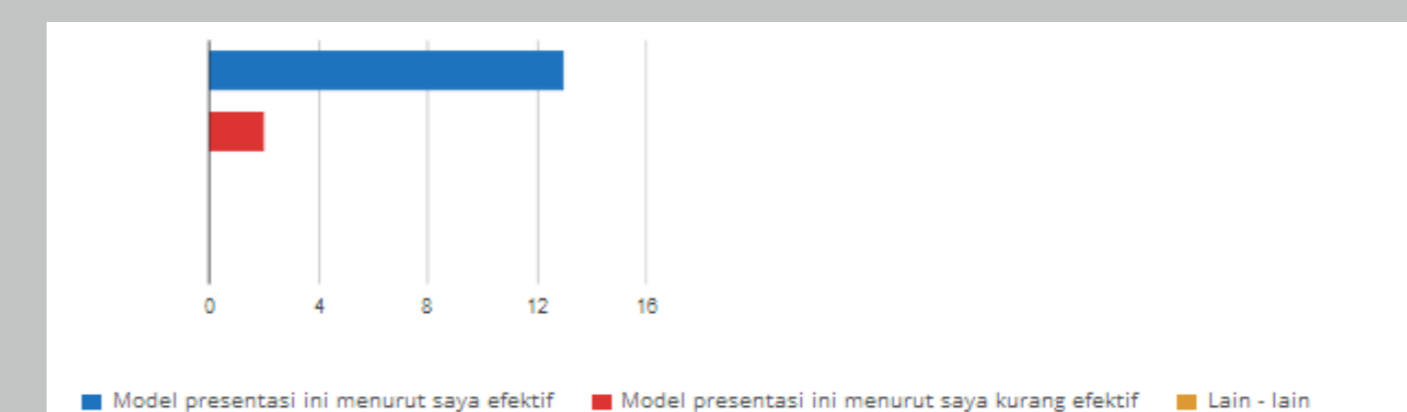


Figure 7: Results of Presentation Area

- ▷ Evaluation Area : Step 1,2 and 4 (Step 3 was represented by Step 4)

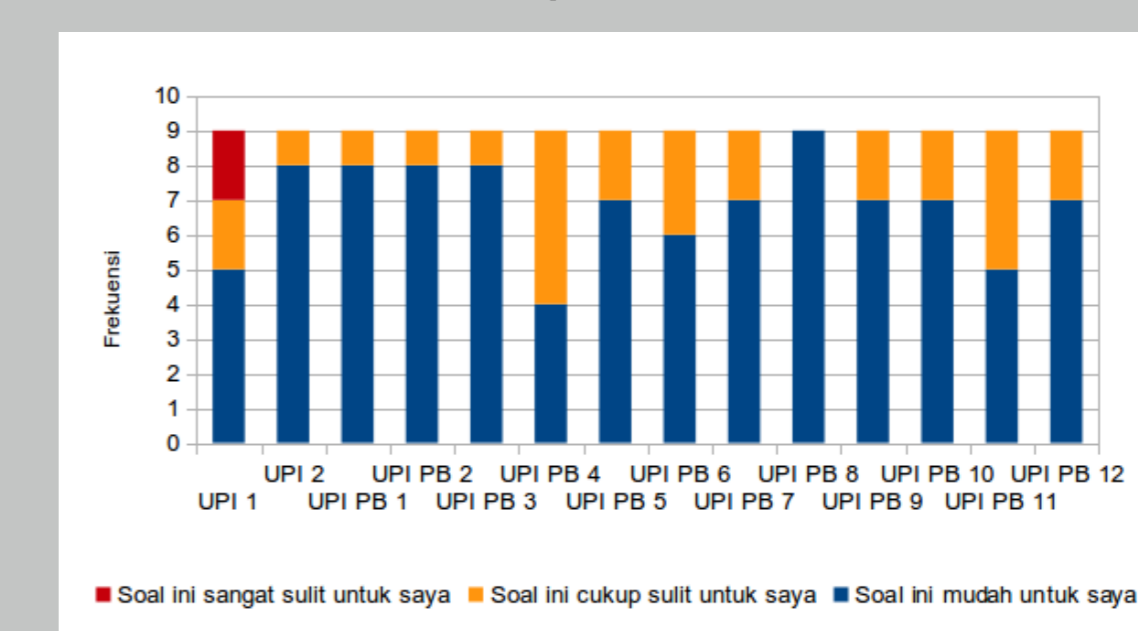


Figure 8: Results of Collective Feedback from Each Evaluation Step

- ▶ Expert Judgement
  - ▷ Experts were giving consideration into our proposed system and its implementation during examination activity. At the knowledge and presentation area, expert was considering to enrich presentation methods to be uploaded. In evaluation area, expert suggested that system could endorse teachers to give questions which must have an investigative character. Recommendation for improvement was prioritized for Evaluation Area.