

QUESTIONS WHICH IS  
DEVELOPED IN LESSON  
PLANS BY TEACHER IN  
GROUP SCIENCE TEACHER  
OF DARMARAJA

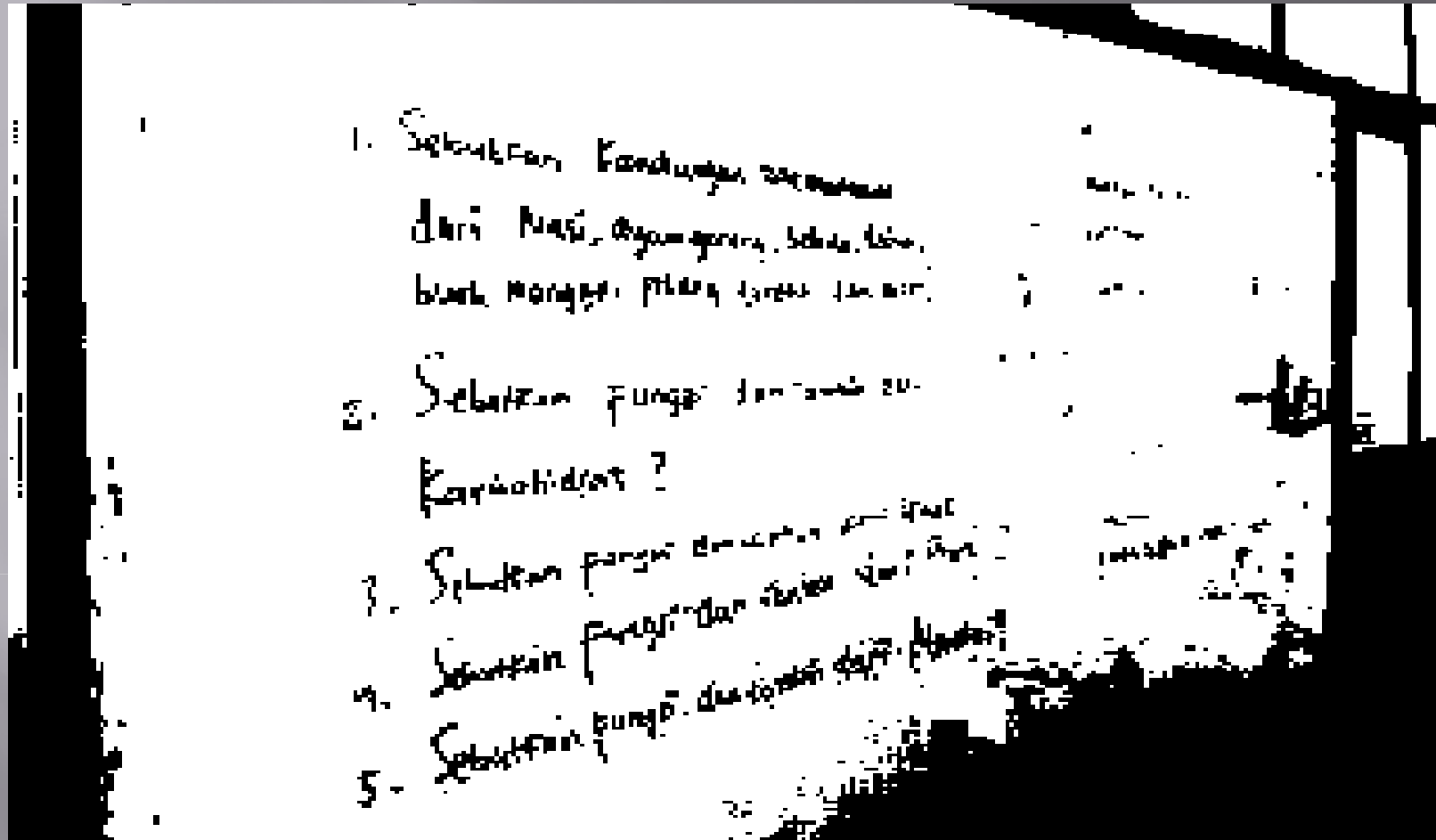
Sri Anggraeni

# introduction

Questioning is one of teacher way to student direction for use their thinking in learning

An inquiry oriented teacher will ask more questions

Unfortunately teacher questions tend to ask factual knowledge  
85,9% teacher questions is recall in junior highschool  
(Swift *et al* , 1988)



- ▣ Recall questions from prospective teacher at school practice professional work

(Anggraeni, et al. 2007).

Question should be planned in the beginning instructions because it is one of demand to develop in lesson plan.

Question well is teaching well (Mayer, 1970)

## **Problem identification**

How about questions which developed by science teacher in lesson plan when their planned to open lesson.

Sub problems is :

- ▣ What kinds questions level which is teacher asked in lesson plan?.
- ▣ What function questions which is teacher asked in lesson plan?.
- ▣ When question asked in teacher lesson plan?

# Purpose of the study:

- ▣ This study was to see science instructional orientation which developed by teacher when open lesson in group science teacher of Darmaraja through kind of question level, function, and moment at the question asked in the lesson plan
- ▣ untuk melihat orientasi pembelajaran sains yang dikembangkan guru pada saat Lesson Study di kelompok MGMP Darmaraja melalui jenis-jenis pertanyaan, fungsi dan saat kapan pertanyaan diajukan.

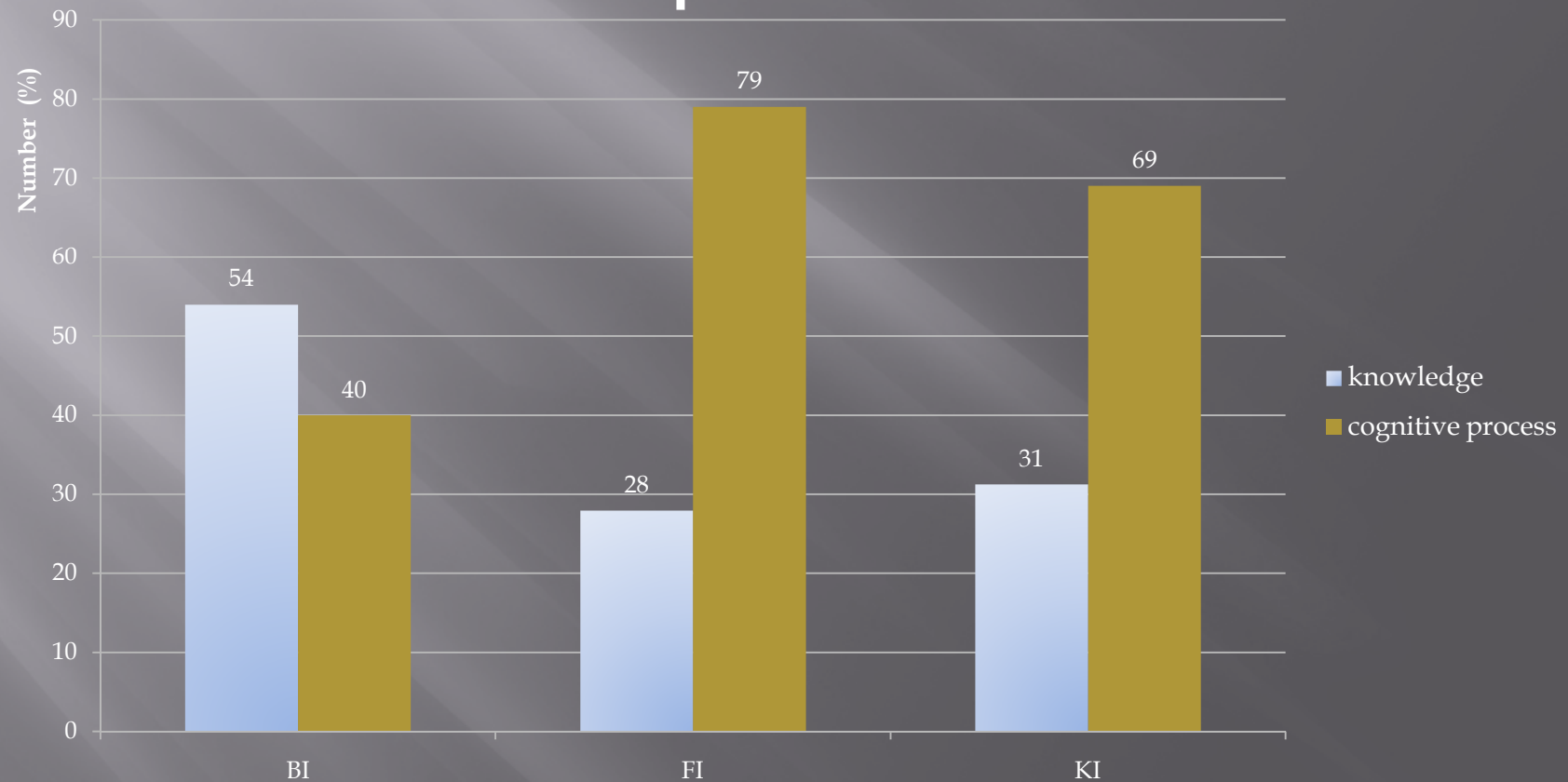
# Method

This study is descriptive method. Questions in lesson plans were analyzed and grouped based on kind, function, and activity which accompany to it and then made percent (%) from data so we could see what question profile and determined instruction orientation.

19 lesson plans was studied and collected from facilitator of science teacher Darmaraja group. The lesson plans were Chemistry, biology, and physics which is developed by teachers in 2006 – 2009 period.

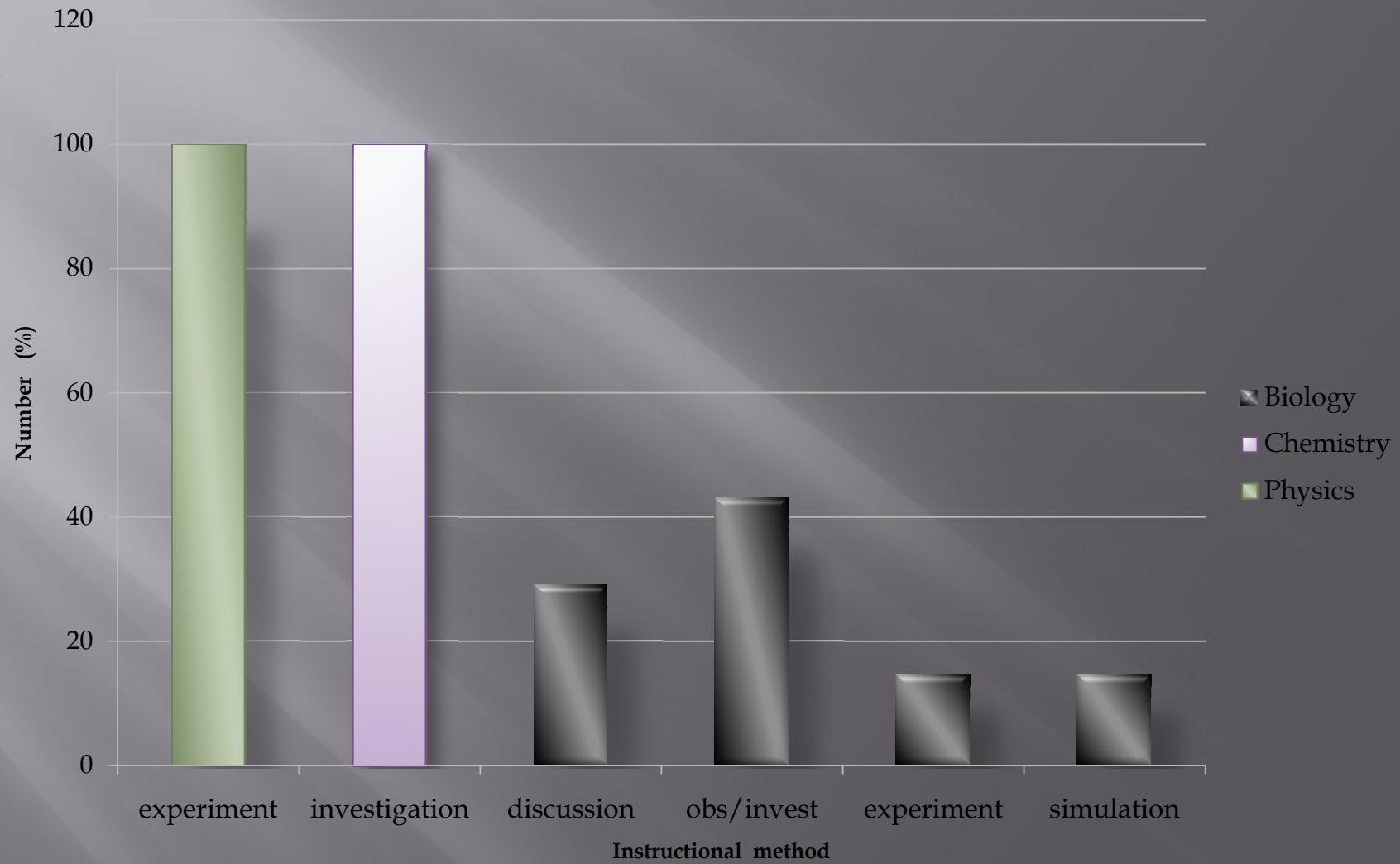
# Results / Findings

Fig. 2. Profile kind of questions in lesson plans





**Fig. 3. instructional methods which developed by science teacher in Darmaraja group**



**fig 2. divergen and convergen questions  
which developed by teacher in lesson plan**

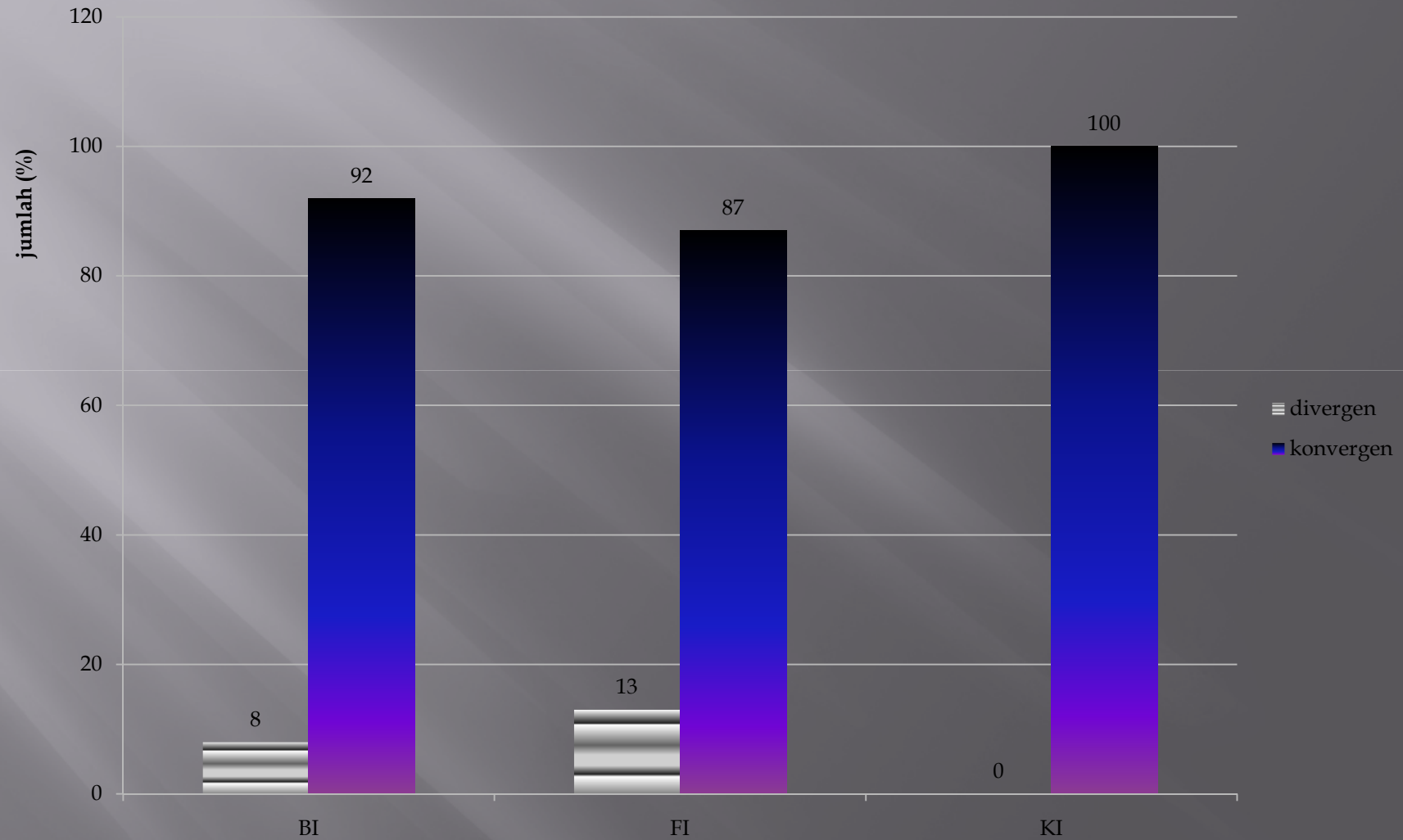
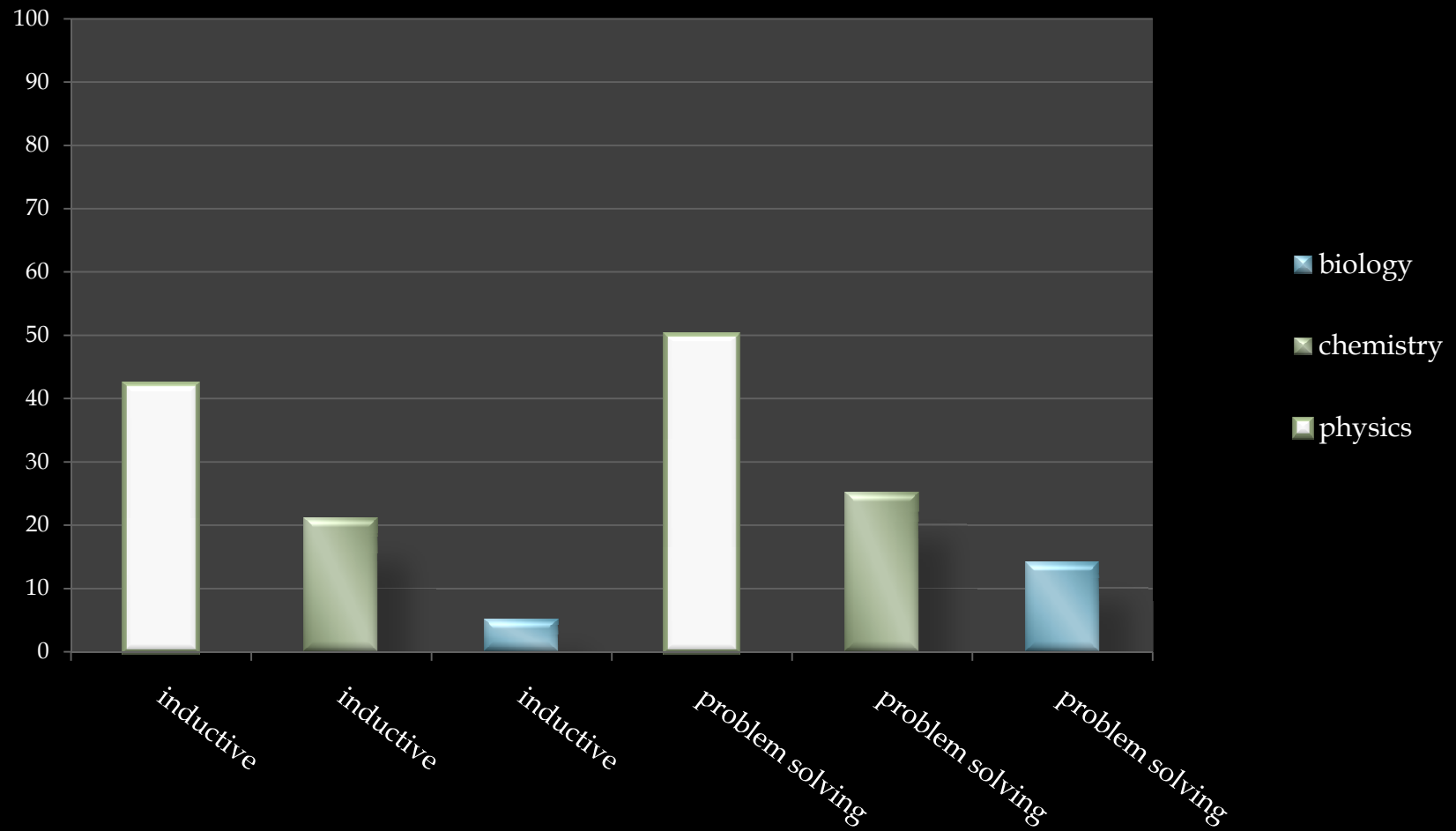


fig 4. instruction approaches which developed by science teacher in Darmaraja group



**Fig 5. Kind of questions which developed by teacher at the open instructional activity**

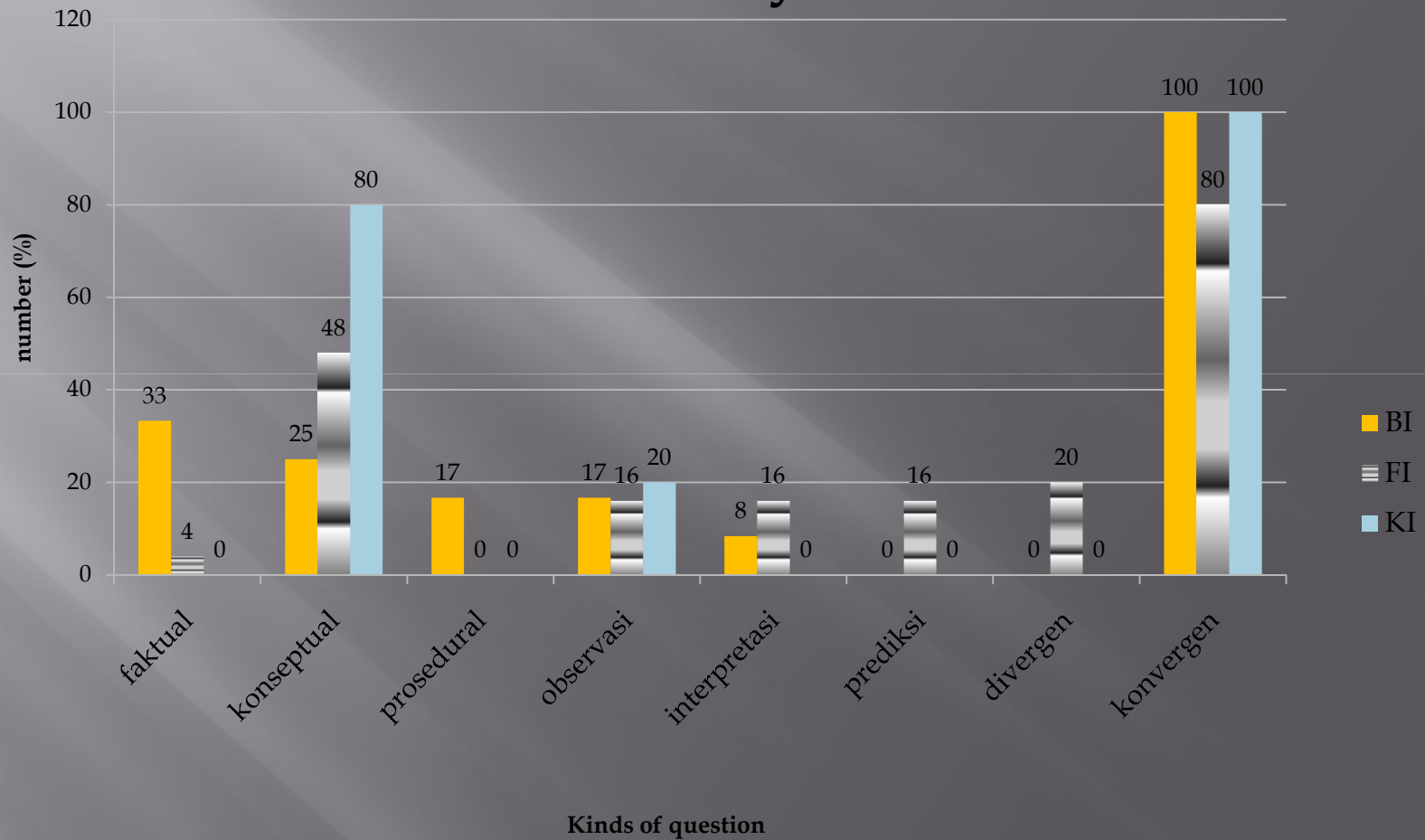


fig. 2 . kinds of question n instructional methods in biology open instructional activity

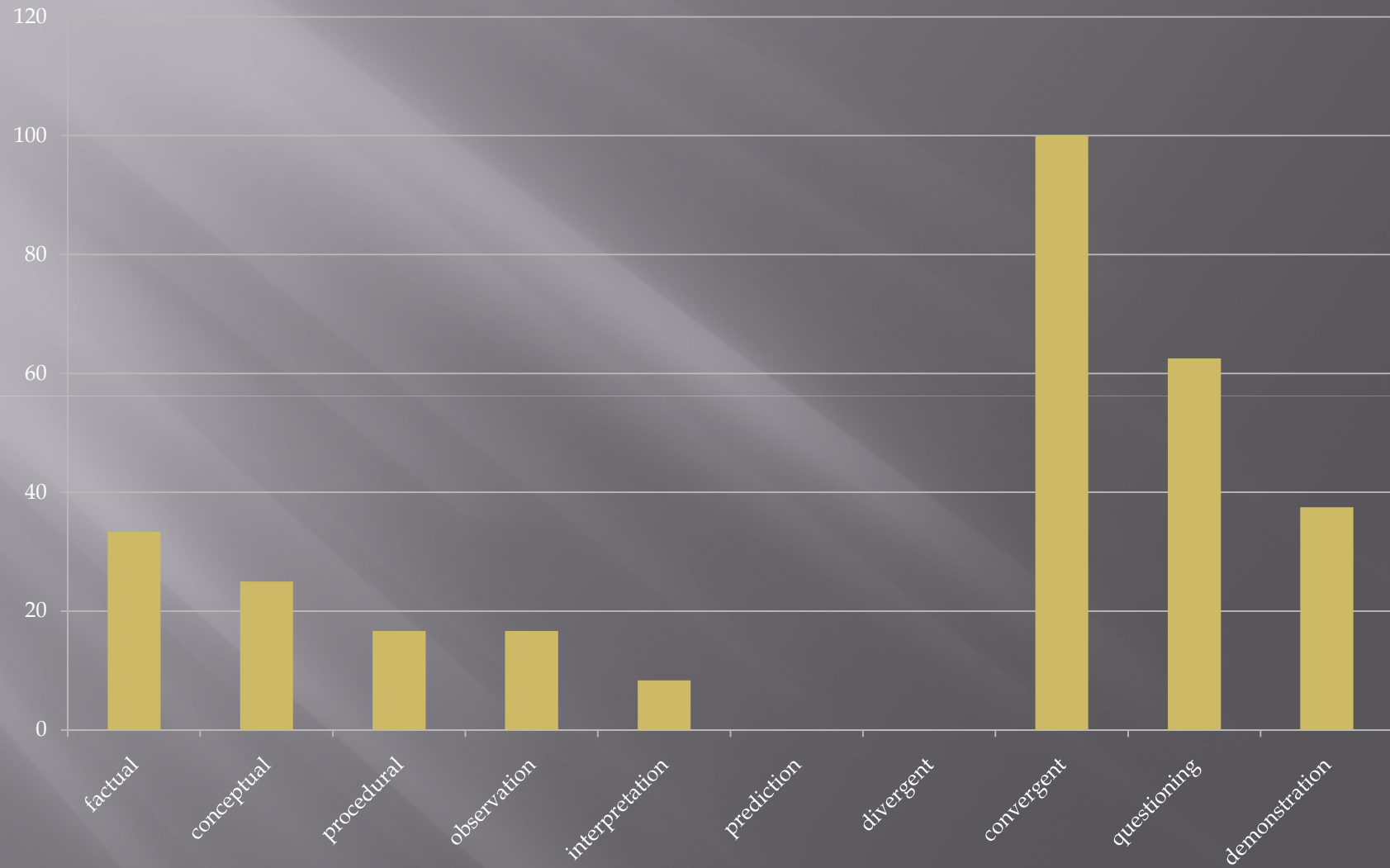


fig. 3. kinds of question in core biology instructional activity

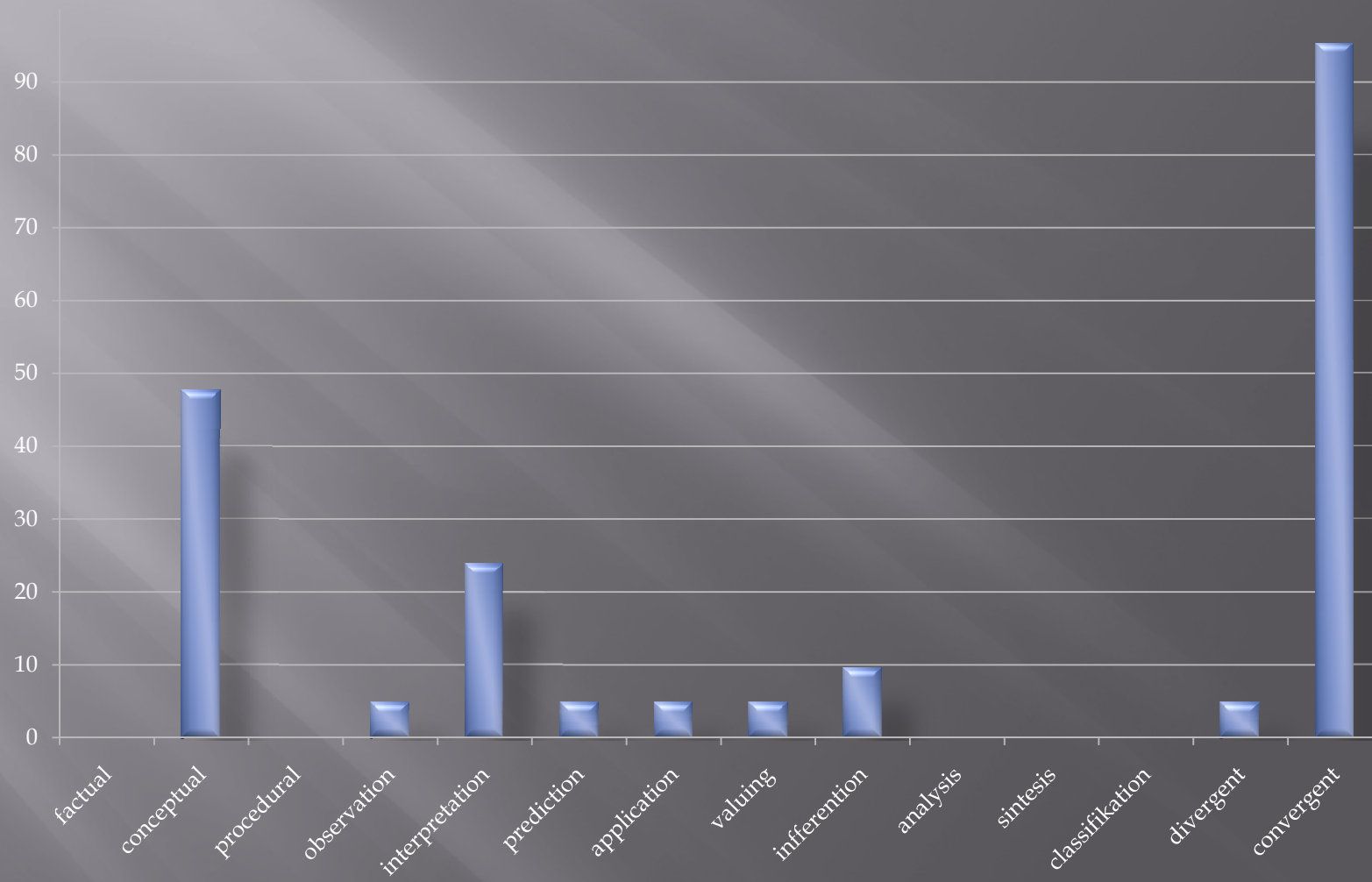
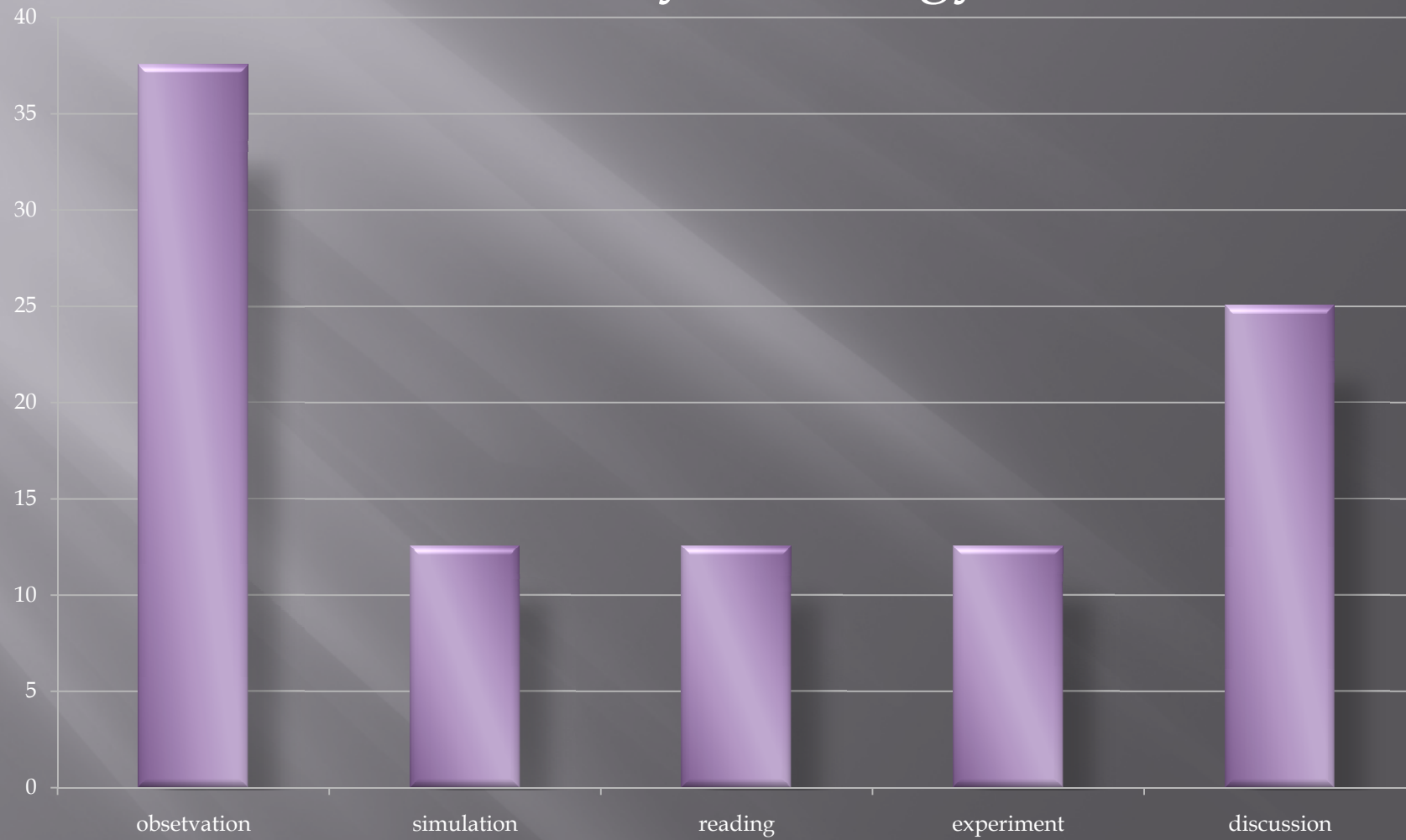


Fig. 3. methods of core instructional activity in biology



**Fig 6. Question kinds which teacher developed at core activity**

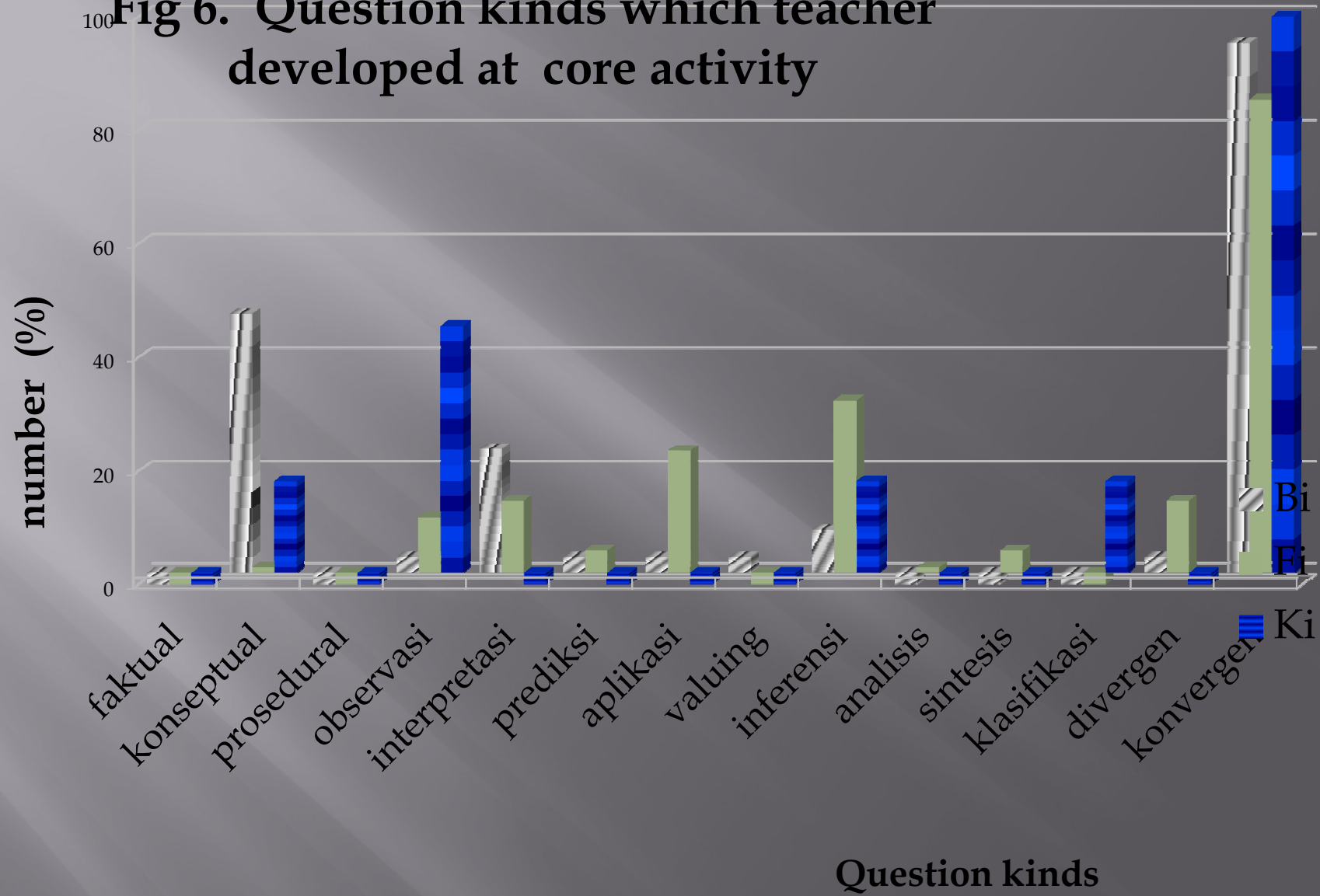
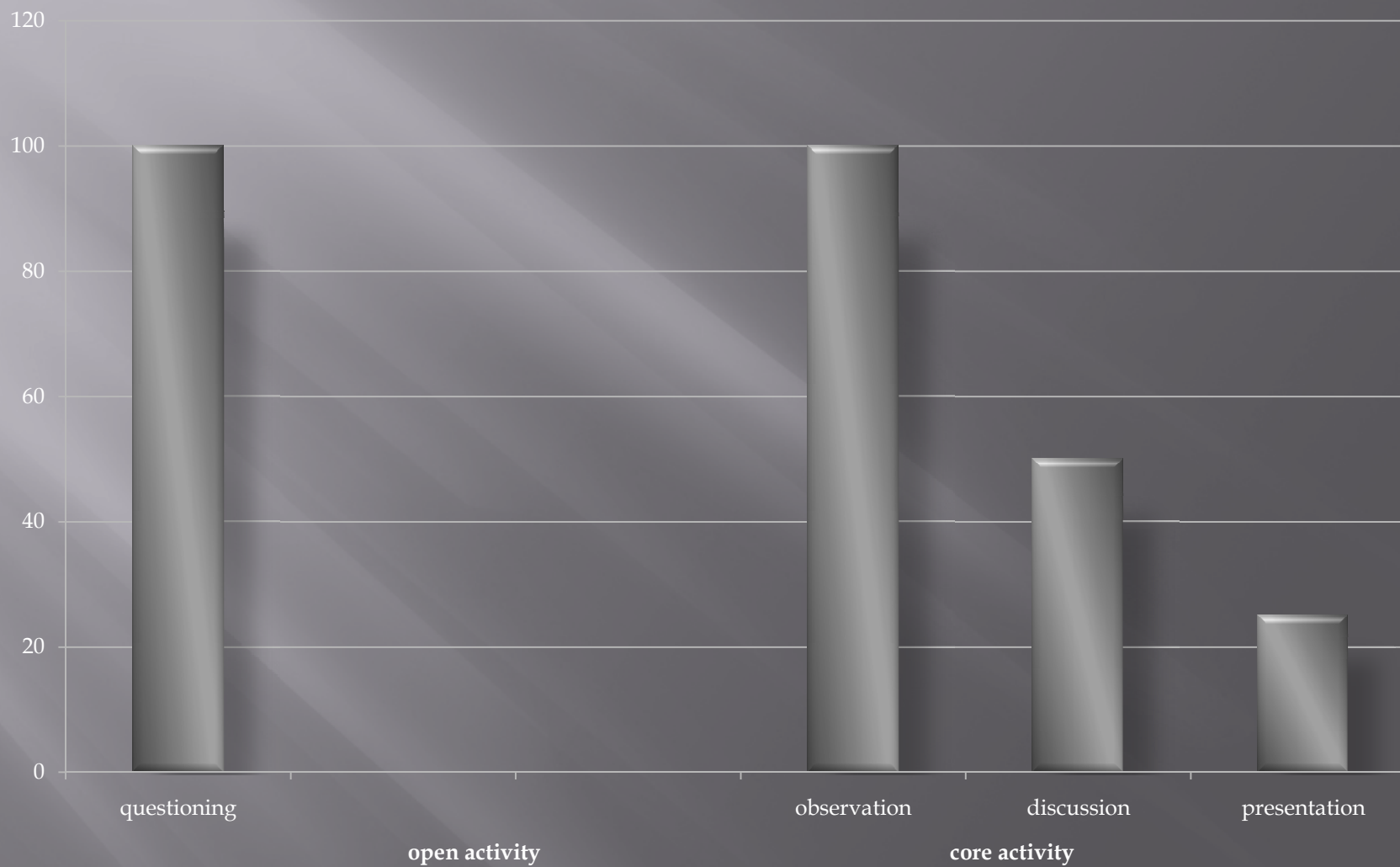
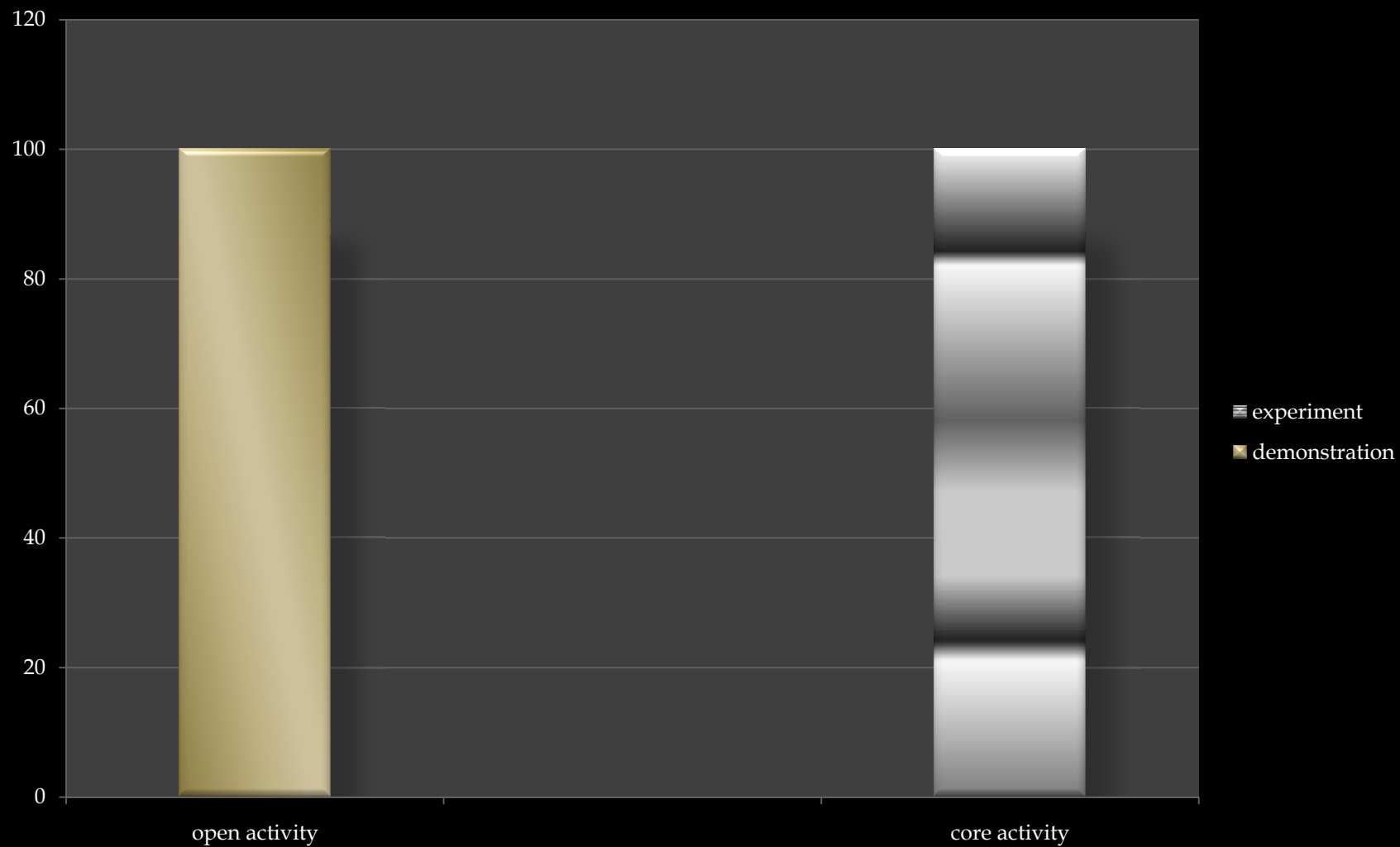




fig 6. methods at open and core activity in chemistry



**fig. 8 . methods at open and core activity in physics instructional**



# Conclusions

Questions kind which developed by science teacher in lesson plan for open lesson at Darmaraja Group were :

- ▣ Knowledge questions (factual, conceptual, and procedural)
- ▣ Process cognitive questions (observation, prediction, interpretation, inference, classification, and application).
- ▣ Spreading questions were more convergent (>87%) than divergent (<13%).
- ▣ → teachers seem have difficult to developed divergent questions.
- ▣ teacher questions seem have interrelation to instructional orientation or method.
- ▣ Experimental/investigation instructional method tend to generated questions that make efforts in a thinking skill direction.

- ▣ Most of observation, interpretation, and prediction questions which developed by science teacher in apperception activity is asked after observation or demonstration activity.
  - Questions will be more rich, variety, and
  - Have attract student attention function
  - Stimulate student curiosity
- ▣ Apperception questions will determine especially the answer must student found in the core activity.

From all of lesson plans have studied,

- ▣ 68% were inductive instructional but only 10% exhibited that questions in the end activity same as with apperception questions .
- ▣ Questions in end instructional activity have directional and clarify instructional objective function.