




**THE IMPLEMENTATION OF PROJECT BASED LEARNING TO
IMPROVE THE COMPETENCES OF TEACHER CANDIDATES**

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INTRODUCTION

- The development of teacher competence is to be an important thing in many countries.
- Competency-based teacher education become a focus in many universities (Smit, 2016).
- The preparation of teacher candidates academically and professionally is a vital responsibility of the state through the teachers training institutions (Nzilano, 2013).
- The faculty of education should seek to prepare lifelong learning competences, to produce professional teachers (Akyol, 2016).



Based on the legislation in Indonesia, the required competences of teacher in Indonesia include pedagogical, professional, social, and personality.

- Pedagogical competence is the ability of teachers in managing students learning.
 - Professional competence is the ability of teachers to master the knowledge of science being taught.
 - Social competence is the ability of teachers as part of the community.
 - Personal competence is competence related to the character that should be owned by teachers
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- As one of teacher candidate education institution, Chemistry Education Department of Islamic University of Indonesia, contribute to produce competent teacher candidates. The department has developed course materials, learning strategies; evaluation system to develop student competences as chemistry teacher candidates.
 - Project Based Learning (PBL) is an option that is applied to achieve these objective.
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METHODOLOGY

The study used a descriptive approach

This study aims to describe the implementation of PBL towards the attainment of teacher candidates.

The subjects were students of chemistry education level three academic years 2016/2017

The Research Instruments



PROJECT ASSESSMENT



COMPETENCY TESTS AND OBSERVATION SHEETS



STUDENT SATISFACTION QUESTIONNAIRE

SYNTAX OF PBL

Start with
essential
question

Design a
plan

Create a
schedule

Monitor

Assess
the
outcome

Table 1. The data summary of pedagogic competence assessment

Assessment aspect	The average score achievement (maximum score 2)
Instructional design	1.8
Implementation of learning that educates and dialogical	1.5
Utilization of learning technologies	1.4

Table 2. The data summary of professional competence assessment

Assessment aspect	The average score achievement (maximum score 2)
Understanding the concepts, laws, theories of chemistry	1.2
Understanding the scope of chemistry materials at school	1.3
Mastering the skills of the laboratory	1.2
Managing chemical materials creatively	1.6

Table 3. The data summary of social competence assessment


Assessment aspect	The average score achievement (maximum score 2)
Communicate verbally, write politely	1.8
Use communication technology and information functionally	1.2
Interact effectively and polite	1.9
Apply the principles of brotherhood and togetherness	1.9

Table 4. The data summary of personality competence assessment


Assessment aspect	The average score achievement (maximum score 2)
Behave based on norms	1.6
Can be a role model	1.4
Present their selves as a person who is stable, mature and wise	1.4
Proud of teacher profession	2.0
Responsible to task	1.4

Table 5. Competence assessment of pre-service teacher

	Pedagogic competence	Professional competence	Social competence	Personality competence
Average	1.6	1.3	1.7	1.6
Category	Good	Enough	Good	Good



In terms of acceptability and assessment of students, the students considered that PBL is easy to implement, not burdening students, and feasible to implement. Students assess that PBL can help them understand and apply the lecture material. Student assessment score related to the implementation of PBL is 1.8 (good categories).



CONCLUSIONS

- The research data shows that PBL gave a positive impact on the attainment of teacher candidates.
- Students also gave a positive response on the implementation of PBL.
- PBL provides students a real experience to apply the lecture material in a project. PBL has great potential to create the learning experience interesting and meaningful for the students to enter the workforce. PBL facilitate students develop the competencies needed when working, students become more involved in learning.

A word cloud of thank-you phrases in various languages, centered on a white background with a decorative floral border. The words are arranged in a roughly rectangular shape, with 'THANK YOU' being the largest and most prominent. Other words include 'GRACIAS', 'ARIGATO', 'SHUKURIA', 'JUSPAXAR', 'DANKSCHEEN', 'TASHAKKUR ATU', 'YOHANVELAY', 'SUKSAMA', 'DOHMET', 'TERCAI', 'BIYAN', 'SHUKRIA', 'GRAZIE', 'MEHRBANI', 'PALDES', 'BOLZIN', and 'MERCII'.

DANKSCHEEN

GRACIAS

ARIGATO

SHUKURIA

JUSPAXAR

TASHAKKUR ATU

YOHANVELAY

SUKSAMA

DOHMET

TERCAI

BIYAN

SHUKRIA

GRAZIE

MEHRBANI

PALDES

BOLZIN

MERCII

THANK YOU