Internalization of the champion core values in work system design and ergonomics learning

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Abstract. This study aims to obtain the concrete example design of the learning outcomes based on internalization of synergy between the CHAMPION core values of Universitas Katolik Musi Charitas with KKNI of Ergonomics and Works System Design courses in Industrial Engineering Department. The CHAMPION core values are Charity, Humanity, Altruism, Managing-capacity, Persistence, Integrity, Open-minded, and Novelty. Internalization of CHAMPION core values in semester learning plans for ergonomics courses will provide distinctive features that differentiate them from other universities. The application of ergonomics that is synergized with the CHAMPION core values is very possible to produce the work system design of teaching and learning process that are reviewed systemic, holistic, interdisciplinary and participatory so that it has an impact on effective, comfortable, safe, healthy, efficient. Based on the research results, impact on learning outcomes; attitudes and values is 29.58%, general skills is 14.79%, special skills is 33.80%, knowledge mastery is 21.83%. Three great interesting learning methods are; student centered learning is 39.47%, interaction/ group discussion is 32.89%, and project based is 27.63%. Learning experience; task is 29%, compile papers is 27%, doing practice is 20%, survey or visit is 16%, and comparative study is 8%. Assesment criteria/ rubric; assignment test as courses, projects, portfolios is 35.9%, written test is 30.9%, performance test is 16.9%, observation test is 7%, and participation test is 2.8%. Based on the data above designed a Semester Learning Plan for Work System Design and Ergonomics courses based on CHAMPION core values.

1. Introduction

This study aims to design a Semester Learning Plan from the subject of Work System Design and Ergonomics in the Industrial Department of Science and Technology Faculty if it is harmonized with the CHAMPION core values of Universitas Katolik Musi Charitas (UKMC). In the UKMC statute document of article 8 stated the core values adopted are Charity, Humanity, Altruism, Managing-capacity, Persistence, Integrity, Open-minded, Novelty is abbreviated as CHAMPION [13] [17]. The CHAMPION core values are still in the form of slogans. Excavation and internalization in the teaching and learning process have been never studied. Baseline results from excavation and internalization will be harmonized in learning outcomes based on Indonesia’s National Qualification Framework (KKNI), interesting learning methods, learning experience/ lecture assignments and assessment criteria/ rubrics to design a holistic semester learning plan of Work System Design and Ergonomics (PSKE) in Industrial
Engineering Department [5], [6]. This research will be an alternative example of implementing the CHAMPION core values in the teaching and learning process of a course. If this research can be implemented well, then the potential development of the CHAMPION core values in implementation of higher education tridharma of Universitas Katolik Musi Charitas is very open. The focus of this research is to find concrete examples of the CHAMPION core values internalization designed and integrated in a holistic Semester Learning Plans of PSKE based on outcome learning. A Semester Learning Plan has an effective, comfortable, safe, healthy and efficient impact on the teaching and learning process between students and lecturers [1],[3],[4].

2. Method and materials

2.1. Types of research
This research is a qualitative descriptive study. In this study the data generated in the form of descriptive data obtained from the data in the form of writing, words and documents originating from sources or informants who are researched and can be trusted [2],[8],[16]. This study looks at the social reality in the field regarding the extraction an internalization of the CHAMPION core values based on outcome learning of the KKNI through the preparation of Semester Learning Plans for PSKE learning.

2.2. Method
This type of data is primary data as words, actions, information, also visualization and secondary data is documents. Informants are determined purposively who have experience, know and have insight into the problem of teaching and learning process with CHAMPION core values. Techniques of collecting qualitative research data by: in-depth interviewe,es and document studies [9], [15]. Data checking techniques use source, data and method triangulation techniques that is interview, observation, and documentation. The variables observed/ measured were raw input, namely: students lecturers of PSKE learning. Environmental input, namely: UKMC Bangau campus environment, especially Industrial Engineering Dept. and instrument input, namely: excavation, internbalization, media, curriculum, lecture/ learning methods by lecturers. The three inputs are processed in the implementation of CHAMPION core values based on outcome learning of the KKNI.

3. Results and discussion

3.1. Data population
The population in this study, structural officials of the Palembang Musi Foundation, rectorates, offices in UKMC, dean of the Faculty Science and Technology (FST), FST structural non dean, all lecturers of Industrial Engineering and all students who are and have taken courses in PSKE learning [7],[10]. Successful data was collected based on the number of questionnaires distributed as many as 150 copies, but the questionnaire return and declared valid was 142 copies (94,7%).

3.2. Impact of CHAMPION core values
Impact of CHAMPION core values implementation on learning outcomes (LO) of KKNI presented in Figure 1. Learning methods, learning tasks, and assessment type presented in Figure 2. Up to date or interesting learning methods presented in Figure 3. And criteria or assessment rubric presented in Figure 4.
3. Synchronization of the UKMC graduates profile with CHAMPION core values

Table 1 below presents an example of synchronization of LO attitudes and values, profiles of UKMC graduates and CHAMPION core values [11], [12],[14]. Table 2. General skills formulation for levels of Bachelor/ S1) in Industrial Engineering Dept. of UKMC. Table 3. Special skills formulation/ competence from PSKE learning in teaching and learning process at Industrial Engineering Dept., FST-UKMC. And Table 4. Formulation of knowledge mastery.

| No. | Formulation of Attitudes and Values                                      | Believers | National Vision | Charity | Humanity | Altruism | Managing-capacity | Persistence | Integrity | Open-minded | Novelty |
|-----|-------------------------------------------------------------------------|-----------|----------------|---------|----------|----------|-------------------|-------------|-----------|-------------|---------|
| 1.  | Be cautious of the Almighty God and be able to show religious attitudes;| √         | √              | √       | √        | √        |                   |             |           |             |         |
| 2.  | Uphold the value of humanity and carry out duties based on religion morals and ethics; | √         | √              | √       | √        | √        |                   |             |           |             |         |
|     |                                                                         |           |                |         |          |          |                   |             |           |             |         |
| 11. | Internalize the CHAMPION core values                                   | √         | √              | √       | √        | √        |                   |             |           |             | √       |
### Table 2. Formulation of general skills LO of the KKNI

| No. | Formulation of General Skills | Bachelor (S1)/Level 6 of the KKNI | Believers | National Vision | Charity | Humanity | Altruism | Managing-capacity | Persistence | Integrity | Open-minded | Novelty |
|-----|--------------------------------|-----------------------------------|-----------|-----------------|---------|----------|----------|-------------------|-------------|-----------|-------------|---------|
| 1.  | Able to apply logical thinking, critical, systematic, and innovative in the context of the development or implementation of science and technology that pay attention and apply the value of humanities in accordance with their fields of expertise. | √ | √ | √ | √ | √ | √ | √ |
| …  | … | | | | | | | |
| 9.  | Able to document, store, secure, and rediscover data to guarantee validity and prevent plagiarism | | | | | | | | | | | | | | √ | √ |

### Table 3. Formulation of special skills LO of the KKNI

| No. | Formulation of Special Skills | Bachelor (S1)/Level 6 of the KKNI | Believers | National Vision | Charity | Humanity | Altruism | Managing-capacity | Persistence | Integrity | Open-minded | Novelty |
|-----|--------------------------------|-----------------------------------|-----------|-----------------|---------|----------|----------|-------------------|-------------|-----------|-------------|---------|
| 1.  | Able to apply mathematics, science, and engineering principles to solve complex engineering problem in integrated systems (including: human, material, equipment, energy, and information) | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
6. Able to chose resources and utilize engineering design and analysis tools based on information technology and computation that are suitable for carrying out engineering activities in the integrated system field.

Table 4. Formulation of knowledge mastery LO of the KKNI

| No. | Formulation of Knowledge Mastery                                                                 |
|-----|--------------------------------------------------------------------------------------------------|
|     | Bachelor (S1)/Level 6 of the KKNI                                                               |
|     | **Believers** **National Vision** **Charity** **Humanity** **Altruism** **Managing-capacity** **Persistence** **Integrity** **Open-minded** **Novelty** |
| 1.  | Mastering theoretical concepts of natural science, application of engineering mathematics, engineering principles, engineering science, and engineering design needed for integrated systems analysis and design. |
|     |                                                                                                  |
| 4.  | Mastering the knowledge of communication techniques and the latest and most up to date technological developments. |

3.4. Semester Learning Plans with internalization of CHAMPION core values

A brief example of a holistic Semester Learning Plans that synchronizes internalization of CHAMPION core values and LO of KKNI presented in the attachment page 1.

4. Conclusion

A research has been conducted to obtain a holistic Semester Learning Plans of PSKE learning that harmonizes the CHAMPION core values internalization based on outcome learning of Indonesian’s National Qualification Framework. A holistic Semester Learning Plan include learning outcomes, attitude and values, general skill, special skills, mastery of knowledge, as well as learning methods, learning assignments and types of assignment.

5. References

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A brief example of a holistic Semester Learning Plans that synchronizes internalization of CHAMPION core values and LO of KKNI

| Week to | Sub-CPMK (The Final Ability of Each Stage of Learning) | Criteria and Form of Assessment | Forms, Learning Models and Resources [Estimated Time] | Learning Materials [References/ Learning Resources] | Rating Weight (%) |
|---------|--------------------------------------------------------|---------------------------------|------------------------------------------------------|--------------------------------------------------|------------------|
| (1)     | Students are able to understand and unify perceptions of CHAMPION core values in internalizing and practicing lectures Work System Design and Ergonomics (PSKE) courses, beforehand, and in groups to explain and identity meeting & concrete examples of CHAMPION practices in the PSKE learning process in UKMC in the region Sumbagsel & Indonesia. Students are able to make ergo learning contracts (CPMK), CPMK3, S3, S6, S9, S11. Implementation of the values of "Charity" and "Humanity" from CHAMPION core values. | Accuracy understanding and unifying the perceptions of internalization & extending CHAMPION core values as well as the accuracy of the explanation regarding the problems identified. | On-Classroom Lectures and tutorials (talk) Cooperaif Learning (collaborative/ cooperative). Discovery Learning, Collaborative Learning and Industrial ergonomics films/ clips, concrete examples CHAMPION core values ("Charity" and "Humanity") | Introduction and contact study of PSKE: Extracting, internalizing, & synchronizing CHAMPION core values to the PSKE perspective Examples of CHAMPION core values implementation in teaching & learning process/ lecture, example in saying, being & acting and examples in the world of work. | 1.5 % |
| (2)     | Do not do: | Non-test form: | Off-Classroom Tasks of PSKE#01 & learn to be independent | Ref. [1], [3], [9], [10], [11], [12], [13], [14], and [15], Films/Clips of Industrial Ergonomics Films/Clips concrete examples of CHAMPION core values ("Charity" & "Humanity") | |
| (3)     | Action that is not based on love | Review the contracts/ agreement of the PSKE Lecture | Off-Classroom (During) Tasks of PSKE#02 & learn to be independent | |
| (4)     | Action that is not based on generosity | Review of thematic PSKE references | Exploring and internalizing examples of the implementation of "Charity" & "Humanity" values from CHAMPION core values, results download of clips/ movies/digital media. | |
| (5)     | Action that is not oriented to humanity (not solid, innocent, disrespectful to others). | Review and search clips for example CHAMPION core values ("Charity" and "Humanity") Independent presentation, random student sampling. | [BT+BM: 2x(3x60") ] | |
| (6)     | Students are able to independently or in groups to explain and identify various PSKE problems in the industry according to the situation and | On-Classroom Lecture & Discussion | [BT+BM: 2x(3x60")] | Ergonomics: Inspection, PMaintenance & Big duty Presentation | 20 % |
| (7)     | Sharpness in the potential analysis of PSKE problems in the industry according to the situation and | Ergonomics: Inspection, PMaintenance & Big duty Presentation | Ergonomics: Inspection, PMaintenance & Big duty Presentation | Ergonomics: Inspection, PMaintenance & Big duty Presentation | |

... ...

8 Midterm Examination (UTS)/ Middle Semester Evaluation (ETS): Perform midterm assessment validation and determine student assistance strategies that are still unsuccessful

... ...

15 Students are able to independently or in groups to explain and identify various
perspectives and problems of PSKE related to current inspection and maintenance in accordance with the facts in the field/industry and analyze in accordance with the PSKE theory and can provide concrete examples of efforts to overcome problems which is in accordance with the industrial context in Sumbagsel and Indonesia in presenting the presentation of the group’s big assignment. (CPMK1, CPMK2, CPMK3, S3, S5, S6, S8, S9, S11, PP1, PP2, PP4, KK1, KK2, KK3, KK4, KU1, KU3, KU5)

Implementation of all the CHAMPION core values

conditions chosen based on the latest 3 years/recent research journal studies in the field of ergonomics.
- Ability to build a preventive ergonomics intervention design and accuracy in formulation and drafting based on the results of previous analyzes.
- Clarity in presenting the results of the analysis and ergonomics intervention model compiled.

Do not do:
- Data fabrication
- Data falsification
- Plagiarism
- Use irresponsible references

Do:
- Action that is of love, generosity
- Oriented to humanity (solidarity, sensitivity, respect for others)
- Prioritize the interests of others, willing to sacrifice
- Management skills, communicating verbally and writing, teamwork
- Strong, persistent, resilient
- Honest, disciplined, responsible
- Open, broad-minded
- Love new ideas, creative, innovative

Non-test Form:
- Paper report of large duty PSKE
- Independently clips presentation for examples CHAMPION core values
- Group presentations, and answer questions independently.

Small Group Discussion, Case Study, Direct Instruction and Discovery Learning, Project Based Learning, Final Project, Contextual Learning, Problem Based Learning & Inquiry and
Films/Clips examples of industrial ergonomics implementation, Films/Clips concrete examples of CHAMPION core values ('Charity, Huminity, Altruism, Managing-capacity, Persistence, Integrity, Open-minded' & 'Novelty')

Non-test Form:
- Paper report of large duty PSKE
- Independently clips presentation for examples CHAMPION core values
- Group presentations, and answer questions independently.

Off-Classroom
Task PSKE/21 & learn to be independent
Ergonomics thematic references textbook review Review textbook: Inspection, maintenance & bid duty presentation, big assignment results of reading in print and electronic media (download clips/ youtube/digital media).

[BT+BM: 2x(3x60°)]

Off-Classroom
Task PSKE/22 & learn to be independent
Digging & internalizing examples of value implementation ('Charity, Huminity, Altruism, Managing-capacity, Persistence, Integrity, Open-minded' & 'Novelty') from CHAMPION core values results download clp/ youtube/digital media.

[BT+BM: 2x(3x60°)]

Inspection
- Maintenance
- Big Assignment
- Examples implementation of CHAMPION core values in teaching & learning process/lecturer, example in saying, being & acting and examples in the world of work.

Ref.
[1] pp:607-702.
[2] ppl:303-347.
[8], [9] pp:229-243, 293-303.
[10] pp:67-97.
[12] Chapter 2, Article 8, Sentence (1) pp: 8
[13], [14], and [15].

- Films/Clips Examples of industrial ergonomics implementation
- Films/Clips concrete examples of CHAMPION core values ('Charity, Huminity, Altruism, Managing-capacity, Persistence, Integrity, Open-minded' & 'Novelty')

Final Semester Examination (UAS)/ Final Semester Evaluation (EAS): performe final assessment validation and determine student graduation 35%