ACTIVE LEARNING, ACTION RESEARCH : INTEGRATING SERVICE LEARNING IN FURNITURE DESIGN CURRICULA
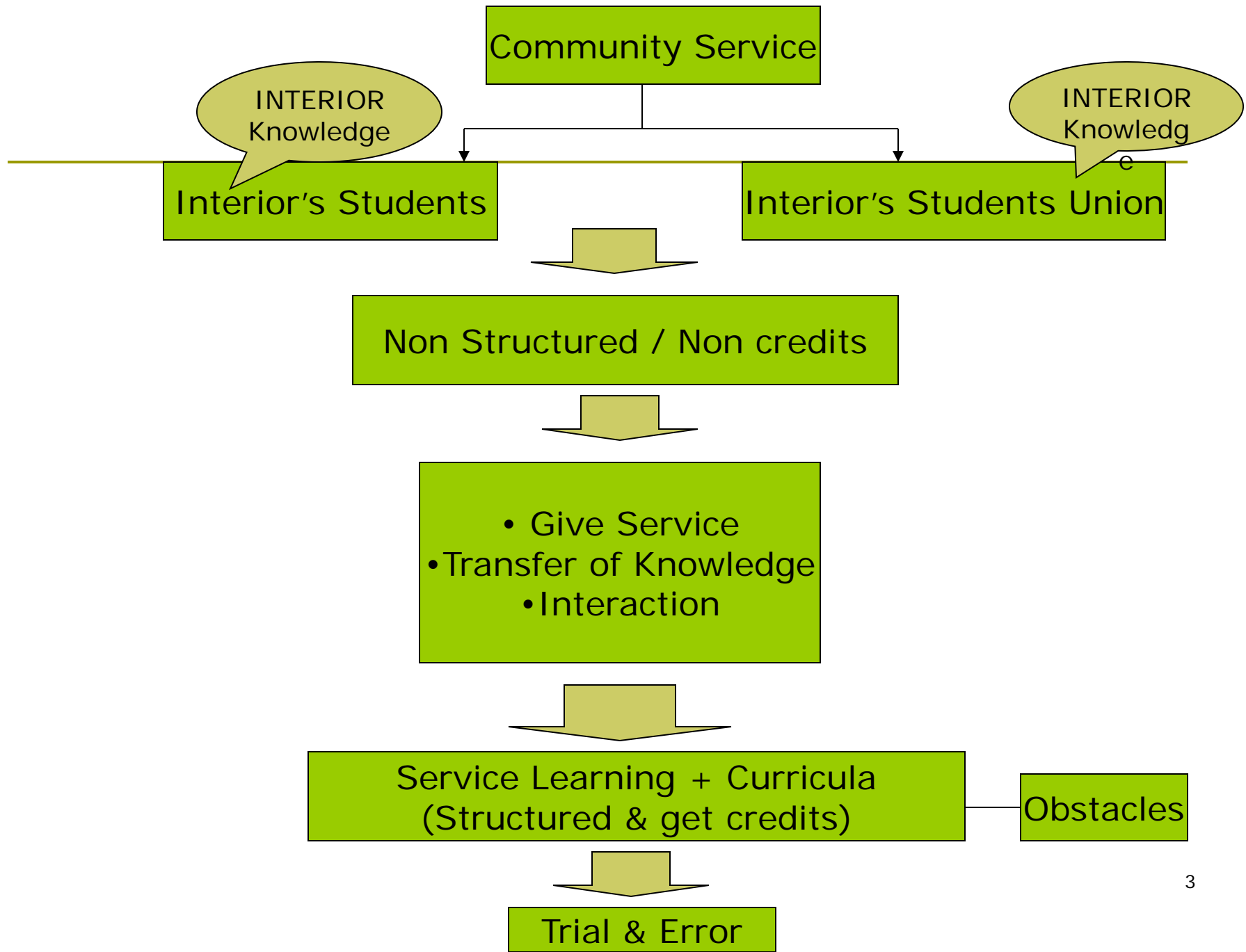
By : Mariana.W, S.Sn

PURPOSE

□ To develop a mechanism from community service (* interior knowledge) to service learning that integrates with furniture design curricula.

In addition, the paper presents the impacts of these service-learning activities on student learning and research in creating a furniture design.

```
                      ┌─────────────────────┐
                      │  Community Service  │
                      └──────────┬──────────┘
         ╭─────────────╮         │         ╭─────────────╮
         │  INTERIOR   │    ┌─────┴─────┐   │  INTERIOR   │
         │  Knowledge  │    ↓           ↓   │  Knowledge  │
         ╰─────╮───────╯                    ╰───────╮─────╯
  ┌──────────────────────┐         ┌──────────────────────────┐
  │  Interior's Students │         │ Interior's Students Union│
  └──────────────────────┘         └──────────────────────────┘
                              ⬇
                  ┌──────────────────────────┐
                  │ Non Structured / Non credits │
                  └──────────────────────────┘
                              ⬇
                  ┌──────────────────────────┐
                  │     • Give Service        │
                  │  •Transfer of Knowledge   │
                  │      •Interaction         │
                  └──────────────────────────┘
                              ⬇
          ┌──────────────────────────────┐   ┌───────────┐
          │ Service Learning + Curricula │───│ Obstacles │
          │   (Structured & get credits) │   └───────────┘
          └──────────────────────────────┘
                              ⬇
                  ┌──────────────┐
                  │ Trial & Error│
                  └──────────────┘
```

3

Service learning connects students with :

- □ Societal issues related to furniture
- □ Ergonomic
- □ Opportunity to see real impacts
- □ Variety community
- □ Real project

And *earn credits* at the end of the semester.

BACKGROUND

- Combines service objectives with learning objectives with the intent that the activity change both the recipient and the provider of the service

- To increase the development of intellectual thought, cognitive abilities, improve academic performance and achievement, and strengthening student's citizenship education, their senses of community responsibility and their abilities to participate as a good citizen

- In successful furniture design, there is a fine line between adhering to the initial idea and experimenting with creative options to strengthen it.

THEORITHICAL FRAMEWORK

Stem (1989) coined that a good design process to create a furniture can have some stages / steps :

- Conceptualization. Here you can create a design concept which evolves from the initial idea and a "problem statement", which is your plan of how to proceed during design.
- Research. Research all aspects of the problem to collect as much information as possible.
- Design development. Develop the design to a point where the object can be built.
- Implementation. Implement the design (construct the piece)
- Evaluation. Evaluate the complete project.
- Presentation. Present the piece in professional, informative way.

PROJECT FINDING AND SERVICE LEARNING FURNITURE DESIGN CURRICULA
Interior Design Department, PCU.

- Self finding
- Collaborated with LPPM
- LPPM with non profit agencies

The challenge for LPPM : find projects that related with the parameters of SL project for every department in Petra Christian University.

Approach conceptualization is
reached by active learning furniture in the community's space and action research to collect as much information as possible via surveys and interaction to the community society.

In this way, result of the active learning and action research hoped can be settled any problems that may rise during the learning process as learning and the evolution of design can be given to the community as a service.
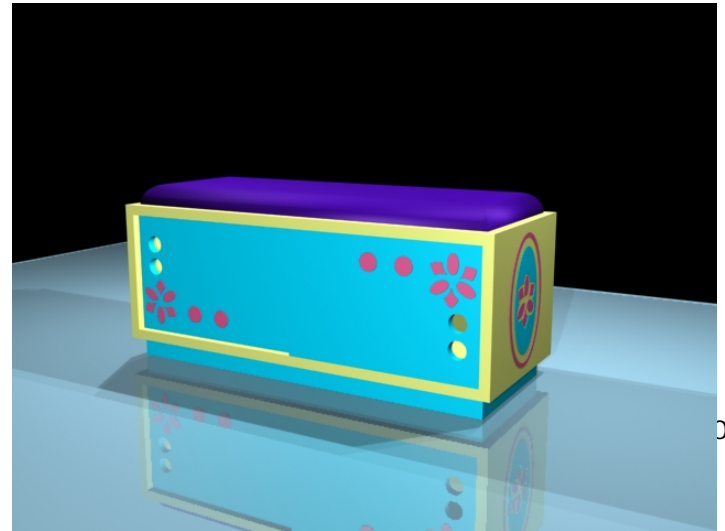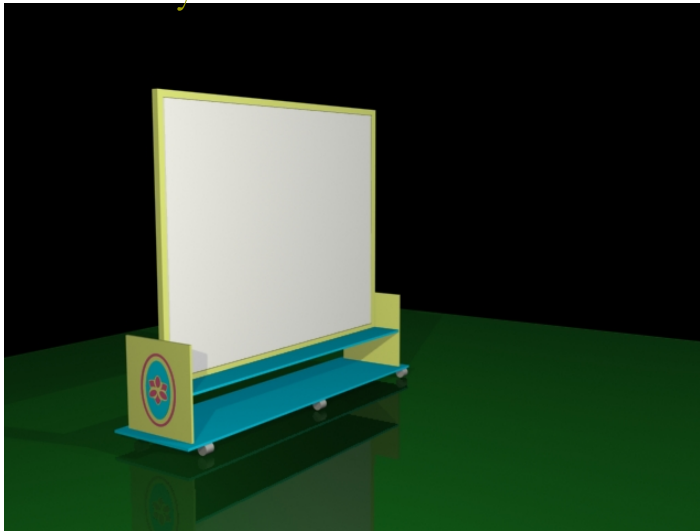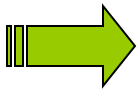
RESEARCH FOR PROBLEM SOLVING

- Stages :

    1. Interact & write down all motions

    2. Break down the structure into components part with limitations

    3. Analyze

    4. Problem solving (material, ergonomic, shape, etc)

    5. Put it into a concept design

Furniture Design (Research influenced by a technical process & emotional requirements)

Furniture Design
(research influenced by
function)

There are characteristic of the best designs curricula: (Wiggins, 2005)

- Clear performance goals
- Hands-on approach throughout
- Focus on interesting and important ideas, questions, issues, problems
- Powerful feedback system, with opportunities to learn from trial and error
- Personalized approach, with more than one way to do the major tasks, and room for adapting the process and goal to style, interest, need
- Time set aside for focused reflection
- Safe environment for taking risks
- More of an immersion experience than a typical classroom experience

Furniture design course of Interior Design Department

- Taking a real projects study.
- Try to develop "teaching" and "learning" process by implementing Service Learning
- Students can experience a real project process of designing furniture by focused on reflection from community.
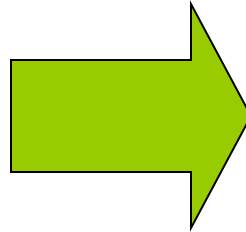- Give much positive contribution to community & development of Interior Design education.

Goals Syllabi

- The objectives :

  1.To conduct research using primary and secondary information research

  2.Develop skills in the surveying, recording and communicating design needs, details, constructions, materials, ergonomic, anthropometric and users habit and behavior according to professional standards

  3.Knowledgeable of cultural, historic, habit, behavior, technological, economic and trend factors that shaped the community based furniture design and to develop analytical skills to analyze, conceptualize, research through analysis to give the best design solution for the community.

- Approach of design : experiential learning

  (Start with experience → student can share → get into the design process → generalize and apply the knowledge they get in the theory class)

- The students write down reflection in their journal

Project Complexity and Description
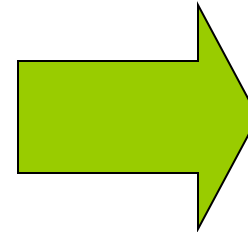
- ☐ 3 types of group assignment :
  a. Reading
  b. Discussion
  c. Teamwork

  → *CONCEPTUALIZATION AND RESEARCH (Problems finding)*

- ☐ 2 type of individual assignment :
  a. Designing furnitures → table, cupboard, partition, shelf, etc. (programming, analysis, design concept, working drawing and recommendations for further efforts)
  b. Presentation

  → *RESEARCH FOR COLLECTING INFORMATION (PROBLEM SOLVING DESIGN)*

- Presented, reviewed by instructor and discussed in each group at the end of the project
- The best design of each groups will be responsible for giving their design to the community as one of the service.
- Examination will be only a mid-term exam on which the students are allowed to use any notes or readings. It reflects a more comprehensive application of the knowledge gained from theory class semester.

Timeline

- This project is for one semester project.
- The project :

  Furniture of public student center in Surabaya
- The student will meet once a week and responsible for punctual and regular class attendance. Maximal absences are 25 %.

Grades

- Group assessment
    20%
- Mid-term exam
    10%
- Individual assessment
    40%
- Last exam / presentation
    30%

IMPACT

- The instructors : must have knowledge abilities more in practice than theoretical during the experiential learning process.

- The learners: must have more spirit to find the knowledge and after the experiential learning process (active learning, active research).

- The University : must have Service Learning standard of application, credits and more budgeting.

Service & Learning
Process
2005

Service & Learning Process 2005

Service and Learning Process 2006 (Gunung Sari)

Location S-L 2006

- Kutisari Indah Barat V, Balai RW IV
- Kelurahan Bubutan RT 04, RW 08, Jl.Maspati no.5-6, Balai serbaguna
- Balai RT - Siwalankerto Permai 1, 2
- RW 2 – Kelurahan Siwalankerto (PAUD)
- etc

REFLECTION

- Mayasari said, "Service Learning in furniture design course is really interesting and chalenging. It gave us valuable experience in designing furniture for public facility study center, communicating with different culture community and helping them by giving solutions for their furniture design problems."

- Lisa said, " I can learn to see community's real life which is poor, work in a team, designing a real project and I realize that I have to learn more about furniture's construction that can be applicated and more practiced (not only esthetique and functional)."

- Florence said, " I am happy that I can join this kind of program from my interior department, especially from furniture design course. I hope there will be another project as same as this one for the future."

CONCLUSION

- Active learning and action research is an invaluable experiential learning method.
- The integration of service learning into the curriculum is a first step towards furniture design course, interior design department, art and design faculty, Petra Christian University. This process gives soul to the course content and made a positive contribution to the curriculum development.
- Student gains benefits are not only volunteering to teach design, improving oral communication skills, but also developing a real design project's skills, developing awareness about social problems and learning design with different culture of community.

Thank You

God Bless You