

Research – Production – Education  
VocEd-M5

# The Project Method in Vocational Education and Training

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“Project Work is

- planned action (single-handed)
- heartfelt (interests, necessities)
- that takes place in a social environment” (social responsibility)

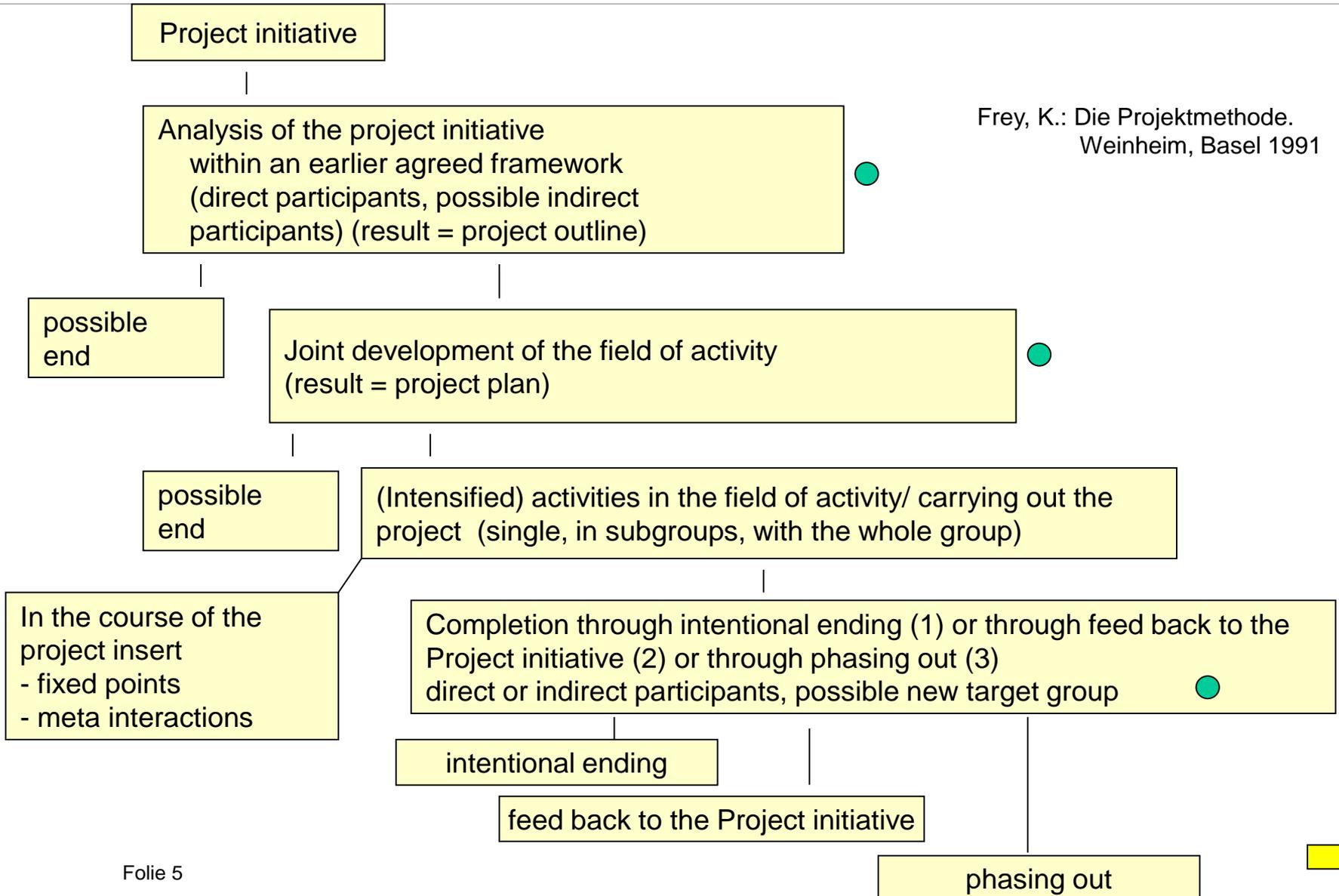
Kilpatrick: The Project Method. Teachers College Report 1918, 19 S.319-335

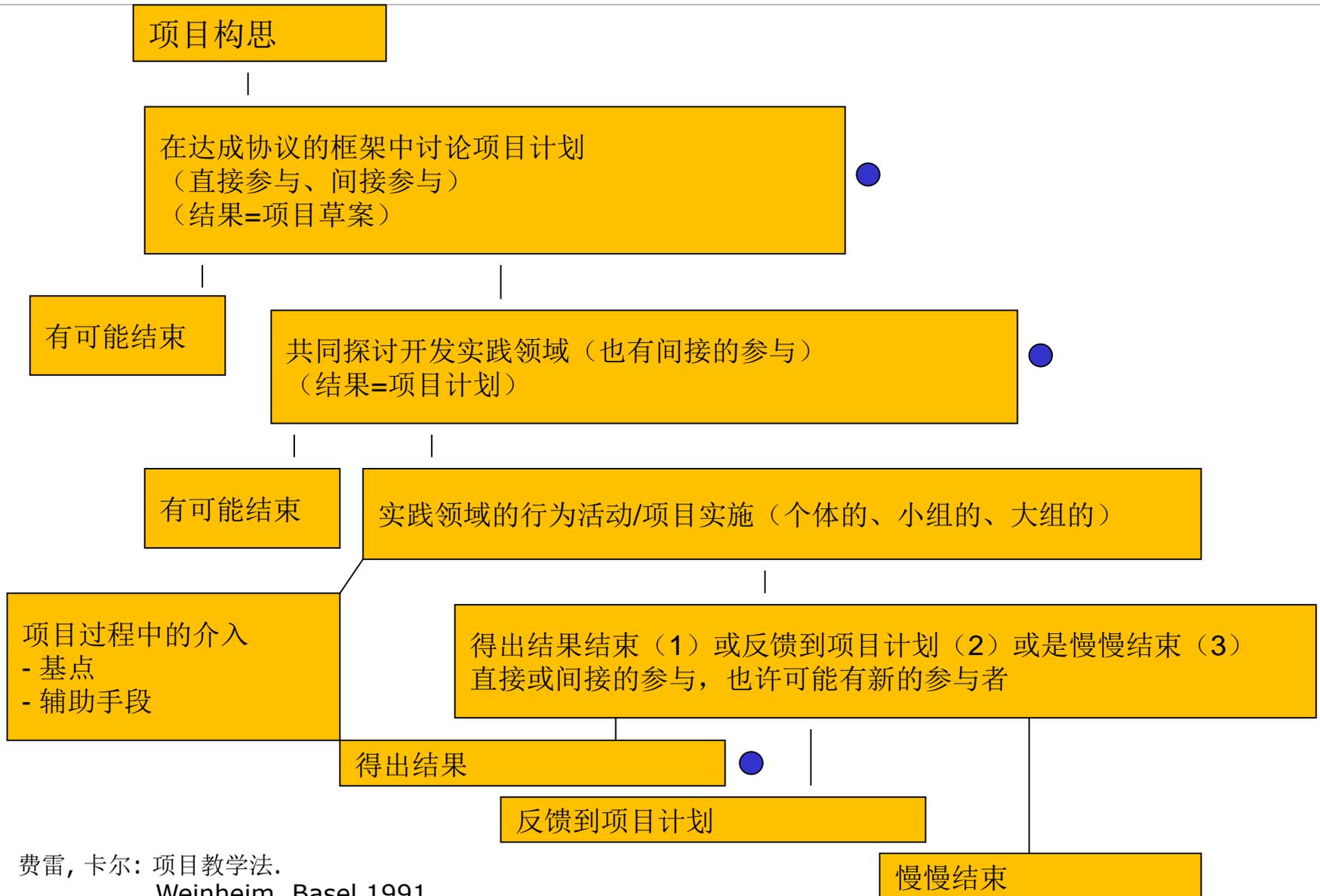
1. Starting with an obvious problem from the surroundings of the participants  
(where does typhoid come from?)
2. Location, precise statement
  - general educational goals
  - educational relevance of action given in part through the problem, planning and experiment
3. Problem solving approaches  
constructing a plan for solution finding, therefore precision of the target objective
4. Simulation of solution possibilities  
imaginary implementation of the plan
5. Experimental proof
  - carrying out the plan as problem solution or construction of the product
  - when required coordinated labor distribution
  - practical implementation and use of results

1. A project is existent.
2. The work on the project requires structures of solving problems.
3. Project work is oriented at the experiences and interests of the learners.
4. Project work is characterised by complete learning acts.
5. Project work is coined largely by self-organisation and responsibility
6. Project work is carried out in bigger or smaller groups and also alone.
7. Project work is multidisciplinary and beyond their job.
8. The project work is aimed at a product with an objective or subjective use value.

cp. - Gudjons, H.: Handlungsorientiert lehren und lernen. Bad Heilbrunn/Obb. 1989, S.58ff  
- Frey, K.: Die Projektmethode. Weinheim, Basel 1991, S.15ff  
- Hortsch, H.: Merkblätter zur Vorlesung. Dresden 1999

Frey, K.: Die Projektmethode.  
Weinheim, Basel 1991





## Criteria for the Analysis of the Project Initiative

- learner interests
- educational value of the project
- feasibility of the project
- use value of the product

## The project Outline contains information on

- the time limit
- the product
- the different fields of work (roughly)



## 驱动项目的各种原则

- 学生的兴趣
- 项目的教育价值
- 项目的可行性
- 项目结果的使用价值

## 项目草案 包含下列各项

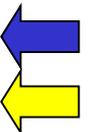
- 时间范围
- 要得出的结果
- 研究领域 (概括的)

**Product:** a) power supply unit  
b) developed and tested circuit for an power supply unit with documentation

**Duration:** a) ca. 10 days  
b) ca. 5 days

**Fields of activity:**

- literature study on transformer, rectifier,
- design of circuit
- account of components
- finding of characteristic curve of components
- experimental test of power supply unit
- documentation of solution
- (making of power supply unit)



# The Project Plan

- list of activities
- distribution of activities among groups and individuals
- development of a time schedule for each activity
- qualification objectives ( knowledge, skills)

→ important: the higher aim is not the product but the qualification of the learners



- 列表各种工作任务
- 将任务分配给各组和个人
- 制作各个任务的时间计划
- 达标目标 (知识、能力、技能)

## activities:

1) *designing and dimensioning of transformer and rectifier*  
(day 1 and 2)

- ...
- ...
- ...

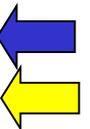
2) *designing and dimensioning of voltage control*  
(day 3 and 4)

- ...
- ...
- ...

3) *experimental test of voltage stability of power supply unit*  
(day 4)

- ...
- ...
- ...

4) *completion of documentation / presentation of results*  
(day 5)



## **(1) the intentional end**

the project work ends with the completion of the product

## **(2) feed back to the project initiative**

participants compare final result and starting point of the project

## **(3) phasing out**

the strived for qualifications have been achieved  
through project work (certain skills, knowledge)

- 1) An exclusive control and assessment of learning outcomes by the teacher isn't possible.
- 2) Control and evaluation of learning outcomes must be done in collaboration between the learners and the teachers.  
The starting point for this is the self-´control and evaluation of the learners, followed by mutual evaluation of the performances by the students.  
On this basis, the teacher is able to explain its performance assessment.
- 3) Despite the product-orientation in learning by working with projects should be the focus of control and evaluation not lie on the quality characteristics of the product, but in the process solving problems.



- 1) 不应让未参与该项目的教师来评估项目结果。
- 2) 应由学生和教师共同评估和检测项目结果。  
除了学生之间的互评外，学生应自评。在此基础上，教师再给予评价，并作解释。
- 3) 尽管在项目教学中强调最后得出结果，但是评估和检测的重点不应仅仅放在项目所得的结果上，也应放在解决问题的过程上。

1. Choose a complex teaching method!
2. Explain the theoretical approach of that method!
  - characteristics
  - learning potentials
  - conditions
  - teacher's and learner's role
  - sequence of the method
  - advantages/disadvantage
3. Develop an example of the application of this method in the employment-oriented vocational training!
  - learning aims/learning content
  - relation to the curriculum
  - initial situation / given problem
  - expected structure of the learning activities
  - scheduling
  - instruments of support from the teacher/media use
  - Criteria and methods of evaluation

Thank you for your attention!

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