

CIVIC ENGAGEMENT AND PROJECT LEARNING¹

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Summary

Experiential learning gives students the chance to discover the course subject and to develop their skills in the context of practical activities. This can be achieved by social learning but also within projects and planning games. In the following, we start with a focus mainly on projects in cooperation with community government, but we show that action oriented learning can take place in the wider focus of civic engagement and community projects.

University and community can learn from each other. Civic projects on one side help the government to gain insight and knowledge or to directly influence the community; and on the other side these projects give students the chance to gain practical experience and social competence by means of real-life projects.

Usually, community based research and social learning is restricted to students in the social sciences. We give examples that show, that also students in economics and even in engineering can participate in civic projects with a mutual benefit for community, government and universities.

1. NORMATIVE BASELINE

1.1 University legislation

While in South Africa community development and Service learning are integral part of the university's mission within the triad of research, education, and community services; the German university law does only address research and education and even forbids to give universities other tasks. Nevertheless, there are two arguments to deal with community projects even in German universities: the first one is the Local Agenda 21 which encourages citizens and organizations to participate in the sustainable development of their community and region and which requires the local governments on any level to initiate a dialogue with their population and scientific community. The second one is the effectiveness and effectivity of practical experience in action oriented learning, which can be gained within community projects.

1.2 Agenda 21

The Rio declaration Agenda 21 is aiming to improve the social, ecological and economical status of the World and to fight the ongoing deterioration in these

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areas, the following citations from Agenda 21 are taken from [\[www.un.org/esa/sustdev/agenda21.htm\]](http://www.un.org/esa/sustdev/agenda21.htm) :

PREAMBLE

Humanity stands at a defining moment in history. We are confronted with a perpetuation of disparities between and within nations, a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being. However, integration of environment and development concerns and greater attention to them will lead to the fulfilment of basic needs, improved living standards for all, better protected and managed ecosystems and a safer, more prosperous future. No nation can achieve this on its own; but together we can - in a global partnership for sustainable development. [UNO]

Within Agenda 21 several sub-problems or groups are addressed which are in the focus of sustainable developments. Local Agenda 21 is based in Chapter 28:

LOCAL AUTHORITIES' INITIATIVES IN SUPPORT OF AGENDA 21

28.2. (a) By 1996, most local authorities in each country should have undertaken a consultative process with their populations and achieved a consensus on "a local Agenda 21" for the community.

28.3. Each local authority should enter into a dialogue with its citizens, local organizations and private enterprises and adopt "a local Agenda 21". Through consultation and consensus-building, local authorities would learn from citizens and from local, civic, community, business and industrial organizations and acquire the information needed for formulating the best strategies. [UNO]

Moreover, universities and the scientific community are addressed implicitly or explicitly in chapters that require their involvement and activity towards sustainable development.

SCIENTIFIC AND TECHNOLOGICAL COMMUNITY

31.2. The scientific and technological community and policy makers should increase their interaction in order to implement strategies for sustainable development on the basis of the best available knowledge.

31.4. Governments should ..(a) Review how national scientific and technological activities could be more responsive to sustainable development needs as part of an overall effort to strengthen national research and development systems,

(b) Promote regional cooperative mechanisms ...

(c) Improve and expand scientific and technical inputs through appropriate mechanisms to intergovernmental consultative, cooperative and negotiating processes towards international and regional agreements;

31.7. Scientists and technologists have a special set of responsibilities which belong to them both as inheritors of a tradition and as professionals and members of disciplines devoted to the search for knowledge and to the need to protect the biosphere in the context of sustainable development.

INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING

8.2. Prevailing systems for decision-making in many countries tend to separate economic, social and environmental factors at the policy, planning and management levels. .. An adjustment or even a fundamental reshaping of decision-making, in the light of country-specific conditions, may be necessary ... New forms of dialogue are also being developed for achieving better integration among national and local government, industry, science, environmental groups and the public in the process of developing effective approaches to environment and development. [UNO]

1.3 Community and government: a fractal structure

Germany has a federalistic system with concurrent legislation and several levels of decision-making within government. There are also regional structures in community, business, trade and culture, which are independent from the governmental borders.

From this, the regions and their institutions show a fractal structure of which the governmental organisation is only one part. Landscape structures, rivers, language/dialect and culture are connecting or differentiating groups. We show this for the environment of AAUAS:

- The European Union has grown from 15 to 25 (27) states and from 375 Mio. to 450 Mio. inhabitants in 2004.
- The state is the Federal Republic of Germany, BRD (with 16 Länder)
- Provinces are the federal states Länder (here: Baden-Württemberg with 20 Mio inhabitants and 4 districts)
- District (here: Regierungsbezirk Nordwürttemberg)
- Region (here: Ostwürttemberg = Ostalbkreis plus another county)
- County (here: Ostalbkreis: 300.000 inhabitants)
- City (here Aalen: 66.000 inhabitants)
- There are several substructures such as quarters, villages and suburbs.

Moreover, there are a lot of non-government organizations and private companies that have interfaces with the community and government. Chambers of commerce and trade, associations (business, sports ...) and others are organized on similar – but not identical – regional structures. The organizational structure of tourism is based on a mix of political and geographical criteria.

2 CIVIC PROJECTS

2.1 Universities

The abovementioned Agenda 21 invites and demands the scientific and political community as well as each individual to participate in the efforts towards sustainable development. Based on their local presence, especially the Universities of Applied Science (former Fachhochschule) are called to get engaged in sustainable community development. Within the context of community development and within this paper, the term university has two meanings:

- The university as an institution: it owes the resources, pays their staff and is able to make formal agreements. Moreover, a university unit (faculty, school, laboratories) or research institute may be a partner within such an agreement (although it may not be a legal body on its own).
- The members of the university: they are individuals, which act according to their will and within the framework of their tasks. They may act within their university tasks (lectures, lab, research) or on an honorary basis. Obviously, they have a life also outside this institution, but people see a member of the university as a member of this institution whatever he/she does.

2.2 Cooperation

Potential cooperation partners for universities are not only the regional governments on different levels, but also community services, police and other administrative bodies and also all parts of community and society such as clubs or chambers of trade or commerce.

There are several ways of cooperation between university and government:

- A formal cooperation is based on an agreement between the university or some of its organizational bodies on one side and some government unit on the other side.
- An informal cooperation can be initiated and conducted by individual persons. This kind of cooperation works between persons via joint projects or consultancy within the framework of teaching and research or as honorary work.
- A commercial project can be handled via an official framework (in Germany there are the Steinbeis and Fraunhofer institutes) or via the lecturers' private activities (within the legal framework of the university labor law).

Universities can take advantage from governments support and funding; while government and community will get support from the university as an institution

or from individual members by methods, knowledge and manpower. This will lead to successful projects and to more effective and efficient decisions.

2.3 Projects

Project management is one of the most important skills for academics. Management and organizational skills, communication and presentation outside and within the team cannot be learned in theory; they must be acquired by real-life training. Community projects in cooperation with local authorities allow the students to get a real-world exposure. An open-minded administration that promotes joint projects gives a playground for the students but takes advantage from of project in several aspects.

- Problems are analysed and researched methodically, solutions are assessed independently, and future developments are analysed holistically.
- Projects that require specialized skills or planning competence are addressed. With a student's project, local authorities also buy into the skill and knowledge of the supervisor.

2.4 Science and politics – two separate worlds?

Science and politics may be seen as two rather different approaches to problem solving. Science is based on facts – objective data and reproducible conclusions. Political decision-making is the art of the feasible: what are the decisions for which the governing body can come to a majority decision. Hence, university and government have different approaches but they have common objectives and they can have a fruitful and symbiotic cooperation.

2.5 Professionalism

A big problem in the cooperation between community, government and authorities on the one side and universities on the other side is the mutual perception and claims. Professionalism is often confused with commercial offers and seen as an opposite to honorary engagement, universities are perceived as "ivory towers" without realistic problem solving approaches. On the other side, people in administration usually are not trained for professional project management.

2.6 Action oriented learning

In the examples considered within this paper action oriented learning takes place within several lecturing units. From the first (project management) to the seventh (quality and environmental management) and eighth (computer science project) grade, the author's teaching activities comprise also projects.

In all cases, projects are defined by the supervising professor, and an external customer (in most times being more a stakeholder than a sponsor) is identified. This challenges the communication and cooperation skills of the students,

since they get a coarse outline and a person acting as a customer instead of a well-defined list of criteria. The students must define the project vision and scope, expected outcome and deliverable items, resource allocation, timelines and the way of publication. This must be communicated to and agreed by the customer and the supervisor.

In this type of experiential learning, the students learn fact and skills such as planning, use of management tools, documentation and scientific work. But even more important are the “soft skills” such as leadership, self-confidence and communication skills. These skills cannot be acquired within a classroom lecture, but the practical project urges the students to communicate among each other and with other groups of people. They must come up with common goals and a common plan and must co-operate with other students. They must also think about the consequences of their actions and the possible outcomes of a project for other people.

2.7 Project preparation

In preparing a project for experiential learning in the community context, the lecturer and project supervisor must consider the triad or magic triangle of

- the customer within his organisation or even the set of customers, stakeholders and sponsors, (in some cases, a lot of hierarchical levels are involved),
- the students’ team and the individual student, (the students have restrictions regarding their time and knowledge),
- the university with their rules and limited resources and the supervisor’s own limited resources (with respect to time and money).

Project preparation takes more time than the preparation of a lecture (and sometimes nearly as much time as it takes to do the job on ones own). A good project preparation considers the learning target, subject and student’s abilities. The supervisor has to foresee possible future problems and alternatives; and this makes a well-prepared project in some sense similar to a planning game. Didactical considerations comprise the structure of the work breakdown structure and schedule as well as the different roles within the projects. For the roles and tasks within a project, the skills and knowledge needed, the resources in time and money and the expected learning outcome must match the individual student’s prerequisite and the study course’s targets.

2.8 Integrating different teams and grades

A special effect of teamwork-oriented learning is given when several teams have to cooperate. The typical situation is given, when students from grade 1 (project management course) and grade 7 (quality management course) have to cooperate. Sometimes individual project work (grade 6) or thesis (grade 9) can be integrated.

Examples for cross-semester cooperation:

| Project name | Teams/ grade | Cooperation, stakeholders, customers, |
|---|------------------------|---|
| Social competence: Assessments of student's social competences/ soft skills and self assessment | W1, W7 | International Relations Office, European Union (project), professor for HR management |
| Energy consumption of the university/ public transportation for students | W1, W7, B8, R7 | University administration, LA 21 group, regional government, service provider |
| Quality management for the engineering management studies program | W1, W7 (3 in sequence) | Head of study program |
| Sundial – didactical models for the virtual movement of the sun. | W1 (2 in sequence) | Faculty for engineering, external partners (teacher, designer) |
| Surveys on the security feeling | W1 (3 in sequence), W6 | Police, city government, Tübingen university |
| W = Engineering Management, R= Technical Editor, B = Economics for SMME | | |

3 EXAMPLES FOR COOPERATION

The examples listed below comprise university projects; mainly students' projects within a course or thesis, but also some honorary staff involvement and Steinbeis projects. Very often, several aspects prevail within one problem area in the course of time. The following projects are not limited to those that are subsumed in the Agenda 21. The grouping is somewhat artificial, since most projects are multidisciplinary and have several direct and indirect customers. Nevertheless the structure should help to see the focus points of our work.

3.1 City Marketing and Security

Here, the customer is a department of the city administration or the police department.

- City marketing and development: Studies for city management, status and image analysis and concepts for several cities. A complete analysis has been made for small historic town with 4000 inhabitants.
- City Event Management: An analysis of the events within the medieval core of the city of Aalen (markets, concerts, sports events) was conducted; a guide for planning and organizing event on public places within a city will be prepared.
- Research on security feeling and causes of fear (population survey and expert interviews) in cooperation with the police department and city department of law and order. Population survey (15000 questionnaires,

4500 responses), expert interviews, cooperation with police city administration, Polls to test the validity and acceptance of the main survey. Special research was devoted to the intercultural aspects of security feeling and to selected suburbs.

- Survey on the protection of juveniles from alcohol abuse with respect to the law for the protection of the youth. Management and sales persons have been interrogated about the instruction of sales personnel according to the duties of due diligence and quality management.

3.2 Tourism and Regional Marketing

Here, the customer is mainly the Ostalb tourism region.

- Regional Marketing and development of a regional brand: The Local Agenda 21 of the region Ostalb started in 1999 with two mayor projects: A set of “green tours”, bicycle tours through the countryside in order to promote local tourism and direct marketing for farmers was implemented. A study for a regional brand was performed and the decision making process within regional parliament is initiated.
- Barrier-free tourism: Support by student’s teams for the status analysis of Aalen City with respect to handicapped people’s mobility. One joint project with the Local Agenda 21 project group on barrier free city and environmentally friendly mobility aims on implementing a barrier free city as a contribution to tourism development.
- Development of concepts for eco- and geo-tourism and benchmarking between touristic regions.
- Support of local tourism via concept development and didactical support for outdoor presentation boards within the “green tours”. Development of event concepts for tourism destinations.

3.3 Energy and Environment

The Local Agenda 21 of the City has initiated these activities.

- Energy saving in habitation and living. To support renewable energies is a typical task where universities can support the community. Several professors working in this area have projects with the community and of course with companies.
- Thermography analysis for buildings to identify losses and to plan insulation measures.
- Public transportation: Research was done within student’s projects and the thesis of a management student giving advice and initiating projects in private-public-partnership.

3.4 Youth and Culture

These activities have been initiated by the Local Agenda 21 of the City.

- Support of the youth newspaper edited by juveniles for juveniles by providing infrastructure and training (University computer lab, training by University staff).
- An infrastructure and rooms for intercultural communication. The “cross-cultural kitchen” is a location for meeting and intercultural exchange. This is not a university project but the project is promoted and headed by a professor of the university.
- Professional information for choice of career and vocational training for local schools.
- Education for the public via an open university. Days of Open University, public lectures and the opportunity to enrol as a guest student give additional educational opportunities to the population.

3.5 Local Agenda 21 Process

These activities focus on the process of Local Agenda 21 itself.

- Initiation of the Local Agenda 21 and support on structural decisions. Initiation was based on activities of the city government (department on environment and environmental protection), the adult education centre and the university.
- Analysis of the citizen's perception of the process of Local Agenda 21.

3.6 Activities for NPO and SMME

These activities comprise activities within the course on “Economics for SME”.

- Projects on funding (esp. for environmental measures), marketing and management for sports clubs and organisations. Environmental marketing and management concepts for SME. Support for management, accounting and technological aspects for local enterprises, especially for SMME.
- Study on skills and know-how needed by local SMME, support for management, accounting and technological aspects for local enterprises, especially for SMME.
- Quality and environmental management for non-profit organisations (NPO) and for government-run organizations (public companies). E.g.: development of an environmental management system and presentation website for a sewage plant; concept for a joint implementation of

environmental management systems (convoy) for several companies within a city; support of implementing environmental management in parishes and kindergartens.

3.7 Alternative Customers: University

A lot of projects had an external customer at the University.

- City guide for foreign visitors. A guide in English language has been produced for our International Relations Office to give our University guests an insight to the University structure, research areas, touristic highlights, history and industry or our region. Regional cooking and a dictionary have been included.
- The possibilities for using regional and whole food products and food from eco-farming in the cafeteria have been analysed according to feasibility and costs.
- Quality management for the University: A quality evaluation according to the EFQM self-evaluation scheme (similar to the US Baldrige Quality Award) and several workshops (future workshop, open space, holistic approaches) have been conducted by student's teams and presented to university staff and alumni.

4. SUMMARY

Community, university and students can benefit from experiential learning. Although the preparation and planning of such projects is rather time-consuming and needs much more effort than the preparation of a lecture, it is a very useful tool for education and for community development.

The examples give insight into the broad range of possible projects, subjects and project partners.

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