

Part IV. TEACHING GLOBAL STUDIES

Section 1. TEACHING GLOBAL STUDIES: REFLECTIONS AND EXPERIENCES

Multi-Disciplinary Didactics for Curricula of 'Global Studies'

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Technological innovations can be used in many ways to enhance the suitability of global learning. A newly developed online-supported curriculum 'Global Studies' takes account of the necessities of interdisciplinary, intercultural and interparadigmatic learning. The history and genesis of such an innovative curriculum is embedded in a national umbrella organisation focusing on development studies. As the interdisciplinary core, a new lecture on the fundamentals of Global Studies has been implemented in 2010/11 that envisions team teaching and interdisciplinary perspectives. The web platform allows students to present their professional views and discuss them in a peer review. Dialogue and discourse are enhanced by repeated change of roles which is enriched by the broad international and intercultural backgrounds of the participating students. Cultures of understanding are generated and widened as a prerequisite for future careers in development cooperation, diplomacy and transnational organisations.

Keywords: *Global learning, intercultural, interdisciplinary, interparadigmatic, web-based dialogue, development cooperation.*

1. Underlying Didactics

The didactic thesis of this paper is that web-supported learning tools (Schwartz *et al.* 2003) have to *facilitate intercultural understanding*.

This paper's approach suggests that deeper *dialogue-induced* cognition in Dewey's sense (Berding 1999) can enhance interparadigmatic understanding, civilisational evolution and multicultural education towards democratisation (Purnendu and Tripathi 2003). In a 'learning society', the integration of views and perspectives constitutes the core of multicultural processes.

Moreover, learning technologies will hopefully contribute to entrepreneurialism (Woods and Woods 2011), to a learning community (Robertson 2011), to reflecting on others' philosophies (Wang 2011: 51), and finally achieve mutual integration of learners' *views* into a consensus. Here the *change of roles* is enabled and prompts learning; this opens up the possibility of using the wide range of game-based learning and role play (Prensky 2001). Managed learning environments are optimally designed in a way to suit

various learner types and may offer opportunities for different personal cognitive and communicative rhythms and patterns (Ahamer 2010: 287; 2011d; 2014).

Concrete usage of *learning technologies* is a clear function of the *underlying didactic concept*.

Well-coordinated *exchange and mutual approximation of academically substantiated views* is the central didactic-pedagogic task in the area of multiculturally and developmentally oriented interparadigmatic curricula such as ‘*Global Studies*’ described earlier (GS 2010: 2; Ahamer *et al.* 2011).

‘*Views on realities*’ are the core element of consideration in intercultural and multicultural learning. Fig.1 symbolizes ‘realities to be learned’ by the globe and – in a more differentiated manner – by a Greek temple. The ‘learning individual’ (up right) uses glasses to view realities ‘through a lens’. The usual concept of interdisciplinarity refers to looking at reality through different parts of the lenses, using different rays from the eye onto the world for different scientific disciplines, when staying in this symbolism.

Fig. 1. Interdisciplinarity means to look through different lenses



2. Interdisciplinarity, Interculturality and Beyond

This paper clearly distinguishes between (1) interdisciplinarity, (2) interculturality and (3) an interperspectivist or interparadigmatic approach.

2.1. Interdisciplinarity

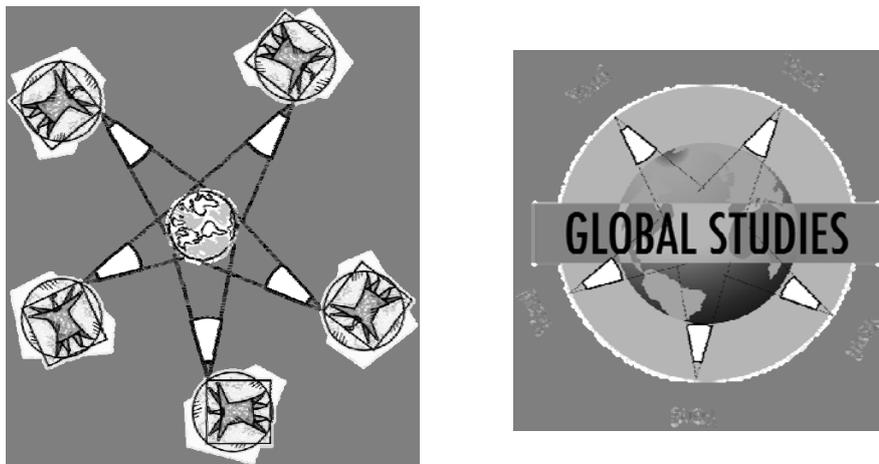
Interdisciplinarity here means to look at one complex issue in the world using *different lenses of perception* (traditionally described as ‘disciplines’). These ‘disciplinary perspec-

tives' are often associated with different faculties. Hence it was imperative for the GS initiative to involve members of all university faculties: law, history, economics, sociology, natural sciences, technology (symbolized by the pillars in Fig. 1).

2.2. Interculturality

As distinct from interdisciplinarity, interculturality means in this article that different actors most likely have different views regarding the same issue in the world (at left in Fig. 2) because they look at it from different standpoints. The framework of Fig. 2 goes beyond 'truths as such' that would have to be recognized during lectures and repeated 'correctly' during exams. What is called for instead is the ability to assess the scope of the area of applicability of competing concepts of understanding.

Fig. 2. Interculturality means to look at the world from different standpoints and hence viewing angles



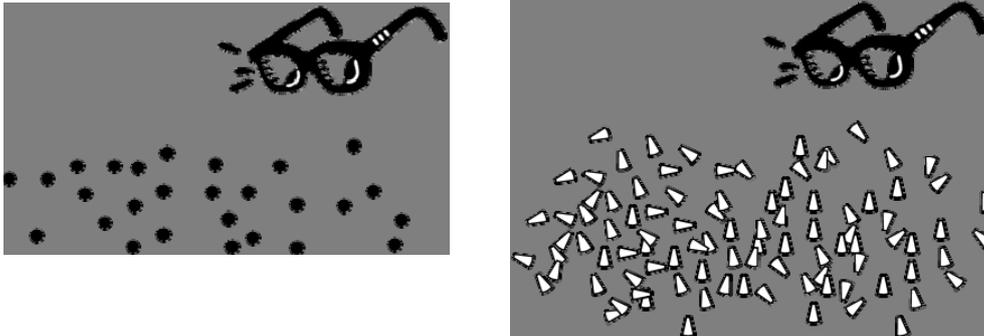
In a collaborative learning environment – hopefully among students *and* teachers – interculturality means to allow for different views of the 'truth' among learners (Cools *et al.*, 2009: 9) who are rooted in different cultural traditions (to varying degrees geographically, religiously, institutionally, socially, corporatively, or individually co-determined) and have different (epistemological) beliefs. This notion of *culture* refers to a 'systemic way of perception' and is composed of 'beliefs, norms, assumptions, knowledge, values or sets of practice that are shared and form a system' (Rapport and Overing 2000; Economides 2008: 244). In this sense, there have been many attempts of rationalising 'cultures' by referring to Hofstede's (2010) cultural dimensions (Sulimma 2006: 75). Clearly there is a need to suitably and integratively understand cross-cultural issues such as dimensions of cultural variability (Hofstede 1980, 2001; Olaniran and Agnello 2005: 74) for target-oriented intercultural work.

2.3. An interspectivist and interparadigmatic approach

However, in this paper we focus on the students' *ability to slip into the roles of members of different cultures*. This is exactly the skill needed to successfully participate in professional international projects – and this skill should be trained by 'Global Studies'.

It is essential for the *intersperspectivistic* approach used in ‘Global Studies’ to concentrate not only on ‘facts’ but rather on ‘views’ as learning objectives. Fig. 2 proposes to depict views as viewing angles. Fig. 3 contrasts such fundamentally different acts of learning: namely to either understand only facts (left, the points symbolize the globes to be cognized in Fig. 1) or rather the views on facts (right, the angles symbolize the perspectives in Fig. 1).

Fig. 3. Learners (symbolized by glasses) can either concentrate on facts (symbolized by points, at left) or concentrate on perspectives on facts (symbolized by viewing angles, at right)



It is the target of ‘GS’ to *train intersperspectivism and interparadigmatic understanding*.

3. The Mission of Global Studies in Graz

Since 2004 a *bundle of electives* has been implemented and in 2010 a *master's curriculum* was started at Graz University after seven years of work led by the ‘Steering Committee Global Studies’ (SC GS 2010).

Dr. Karl Kumpfmüller, an Austrian pioneer in peace research, initiated ‘Global Studies’ in 2004 as a joint effort of NGOs and all departments at Graz University. Around fifty sessions of the ‘Steering Committee Global Studies’ (SC GS 2010) constituted the core driving force of the GS initiative in Graz and were overseen by its founder. The spirit in the SC GS is an inclusive one with a respectful academic peer-oriented culture where the inputs and views of all members are equally valued based on commonly accepted ethical values (Tibi 2009) of a (socially and ecologically) sustainable global development and (transparent & peer-oriented) academic discursive practice.

Understood in a positive sense, ‘Globalisation could (literally) mean international co-operation, worldwide networking, democratic shared ownership, justices of distribution, fair exchange, existential security for all people on Earth – in brief this notion suggests a dynamically developing worldwide system that grants and secures for each single human being his/her unalienable share of existing economic, political, cultural and spiritual power’ (Kumpfmüller 2005: 18). However, ‘globalisation as an ideological construct and as a political reality means the contrary, namely increasing inequality and injustice; it impedes development and increases poverty, and is inclined to military power’. Throughout history, two opposite concepts of human convivance have striven for implementation (de-

noted in Latin): *pax* relies on ruling by dominance, and *concordia* seeks to achieve harmony of interests (Kumpfmüller 2009: 329). Emphasising its opportunities, ‘another globalisation, a bottom-up globalisation is needed, including respect of human rights, social and economic justice and an open dialogue of cultures (...)’ (Kumpfmüller 2005: 19; 2001).

3.1. The roots of GS Graz

Since GS was founded in 2004, all strategic decisions have been taken by the Steering Committee on the basis of respectful discussion among all involved faculty members from *all* six university departments in the spirit of participative democracy and have been transparently documented in the protocols of the Steering Committee prepared by the SC members from the Afro-Asian Institute (AAI 2010) who provided office space for the bi-monthly meetings. The location of the Steering Committee's sessions at the Afro-Asian Institute is a symbol for the engagement of NGOs in the spirit of mutual cooperation with the university. The following section comprising the entire chapter 3 is taken from the seminal definition of Global Studies addressed to the Senate of Graz University that led to the inauguration of a curricula commission (Kumpfmüller 2007).

3.2. The need for Global Studies

The idea and initiative to set up a curricula commission for a ‘Global Studies’ Master's degree program at the Karl-Franzens University Graz as a separate Master's curriculum for Global Studies (Kumpfmüller 2007: 1) is based on the growing importance of issues such as climate change and the shortage of resources, famine and mass poverty, terrorism and violence that are a proxy for a large number of unresolved global problems and challenges. Universities are seismographic places in a learning society and are apt for mediation among stakeholders. Particularly young people need both comprehensive and specialised training including basic academic knowledge and awareness, cosmopolitan orientation and empowerment in an increasingly complex globalised world.

3.3. The goals of Global Studies

The primary goal of the ‘Global Studies’ Master's program is to convey and promote understanding of the global society, its mechanisms, interdependencies and problems as the basis for strengthening responsible governance to confront the resulting issues. The participants in the GS program will, amongst others, be able to:

- develop a basic understanding of different cultures and world views from different perspectives and disciplines (history, philosophy, economics, politics, law, culture, literature, religion *etc.*) and to understand global interconnections;
- understand the interdependence of global phenomena and processes in an interconnected world and to recognize it as a historical process;
- analyse the structural disadvantage of a majority of people (poverty, hunger, illiteracy, marginalisation and lawlessness *etc.*) and its various causes and be capable of discussing alternative scenarios and different approaches for a solution;
- recognise the importance of sustainably dealing with the environment, particularly the protection of the climate and species as a joint global challenge;
- take account of the gender issue as crucial for local and global social development processes;
- acquire basic knowledge in the fields of international law, human rights and international organizations;

- understand and analyze the current dynamics of modern-day economy, world trade and global financial systems;
- recognize the role and responsibility of globally effective players and institutions in their impact on peace and development;
- gain understanding and a greater empowerment for development cooperation and independent development processes;
- develop on the basis of selected country studies and thematic studies concrete global situation analyses and appropriate strategies for solutions;
- receive insights into issues pertaining to intercultural communication and world religions.

In 'Global Studies Graz', '*development*' is understood as *growing jointly in responsibility*.

3.4. The institutional context of the GS initiative

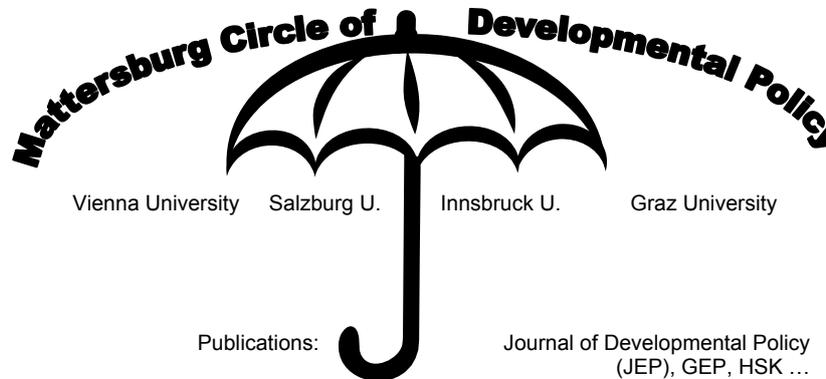
At the *University of Graz*, existing structures already comprise a large number of experts and institutions in the areas of GS, for example:

- the Wegener Center for Climate and Global Change (WegCenter 2010);
- the Research Cluster 'Environment and Global Change' headed by the Wegener Center;
- the Curriculum in Environmental Systems Science (USW 2011);
- the Academy for New Media and Technology Transfer (ANM 2010);
- the UNESCO Chair for Intercultural and Interreligious Dialogue;
- the Regional Center of Expertise in Education for Sustainable Development (RCE 2010).

Within the institutional landscape *outside the university*, several separate NGOs as well as the national umbrella organisation have cooperated with and contributed to GS:

- the European Training and Research Centre for Human Rights & Democracy (ETC 2010);
- the Peace Centre of the City of Graz;
- the Afro-Asian Institute and the 'Welthaus' of the Graz diocese (all located in Graz);
- the former AGEZ (Work Group on Developmental Cooperation), now 'Global Responsibility' (2010) with its over 40 national member organizations;
- the Austria-wide umbrella research cluster 'Environment and Global Change';
- the Mattersburg Circle of Developmental Policy as a national umbrella organisation (Fig. 4) that in turn (co-)organises biannual Developmental Conferences and a Developmental Dialogue Group; it also cooperates with the Paolo Freire Centre (PFC 2010), all with an emphasis on Vienna.

Fig. 4. Developmental curricula in Austria act under the umbrella of the national umbrella organisation 'Mattersburg Circle of Developmental Policy' and are based on regular publication series providing peer reviewed content (Fischer and Kolland 2009)



4. Two Curricula for 'Global Studies' in Graz

4.1. Bundle of electives 'Global Studies'

Operating since 2004, the bundle of electives 'Global Studies' is an interdisciplinary study program at the University of Graz as defined by the 'Preamble GS' (2010) which was co-operatively developed and accepted by the Steering Committee at the initiative's outset. GS combines course units from different faculties and departments of the University of Graz that address global issues and which are annually selected by GS representatives from *all* university departments. The bundle of electives 'Global Studies' is not yet an independent programme of study, but students enrolled in a wide range of existing curricula can take GS courses as electives (a predefined number of electives being required within their own curriculum) and receive course credit for them. In addition, students of Global Studies are awarded a special certificate when they pass courses amounting to 40 ECTS (European Credit Transfer Points).

Global Studies aims to develop students' understanding of the mechanisms, interdependencies and problems of today's global society. Courses in different relevant disciplines give future decision-makers the academic grounding that they need to make informed choices and act in a globally responsible way. The programme sharpens perception on global issues, facilitates understanding of different cultures and systems, and strengthens competence in intercultural communication by demanding academic achievements in each of these six modules:

- Module 1 >> Globalisation, Development, Sustainability, Gender – An Introduction
- Module 2 >> World History
- Module 3 >> World Economics
- Module 4 >> World Politics and International Law
- Module 5 >> World Cultures, World Religions and World Ethics
- Module 6 >> Organisational and Social Skills.

At least two semester hours per module have to be passed in each module (Table 1) in addition to the compulsory 'Introduction to Global Studies' (Kumpfmüller 2010). The remaining credit hours are free electives, but they must be part of different modules. The internship amounts to a minimum of one month of practical work in a non-university organisation focusing on a topic that is relevant to GS.

Table 1. For the bundle of electives 'Global Studies', a minimum number of two courses must be completed from each module. The required total amounts to 24 semester hours per week (40 ECTS)

Recommended year	Type of lectures required	Hours per week
1	introductory lecture Global Studies	2
1 & 2	2 credits from each of the 6 modules	12
2	free electives from at least 2 different modules	10
<i>Total</i>		<i>24</i>

A so-called 'Ring Lecture' (introductory lecture series presented by various speakers) has been held annually since 2005. For a statistical analysis of students following this bundle of electives, see (Ahamer *et al.* 2011: 29–33).

4.2. The initial plan for a 'Global Studies' Master's curriculum

The initial proposal to the university senate (Kumpfmüller 2007: 3–4) produced after intensive and consensus-oriented iterative discussions outlined eight modules in a proposal to the curricula commission in order to cover the interdisciplinary scientific breadth of 'Global Studies' in *eight* modules:

- Module 1 >> *Globalisation, Sustainable Development, Gender – An Introduction* including the topics of development, globalisation and global change, sustainability and globalisation; gender equality; global learning, *etc.*
- Module 2 >> *World History* with the topics: history of cultural realms, colonial history and European imperialism and colonialism, post- and neo-colonialism, migration, *etc.*
- Module 3 >> *World Economics*: free trade theories, international trade and economic institutions, global financial systems and international debt, development economics and development cooperation, population theories and environmental economics, *etc.*
- Module 4 >> *World Politics and International Law*: theories of international relations, international politics; critical peace research; international and European law; comparative analysis of legislation, *etc.*
- Module 5 >> *World Cultures, World Religions and World Ethics*: Introduction to cultural anthropology, language, culture and religion in the globalisation process; cultural identity and gender, global citizenship, global ethics, *etc.*
- Module 6 >> *Organisational Development and Social Skills*: Projects in the context of global issues (*e.g.*, via the Austrian Development Cooperation); non-governmental organizations and networks; intervention research, *etc.*
- Module 7 >> *World Climate, Environment and Technology*: climate change, environmental problems, technology assessment, communication technologies, sustainable development.
- Module 8 >> *Global Learning*: international cultural and economic spaces, intercultural communication, human rights, and minorities in the globalisation process.

4.3. Final 'Global Studies' Master's curriculum

The above proposal for eight modules (Chapter 4.2) was *shortened* by the recently established 'curricula commission master study GS' (having a varying number of active members) and cut down to *fewer* modules. Initially, for each scientific discipline two obligatory introductory courses and two obligatory advanced courses were confirmed as mandatory, each out of four modules (representing groups of scientific disciplines); but later the decision was made that (a) one 'basic module' should cover all introductory courses and (b) for the advanced level only *two* out of the remaining *five* modules are required (Table 2). Financial shortage might have been the main perceived reason for this curriculum change.

Table 2. General structure of the final GS master's curriculum (2010) amounting to 120 ECTS

Module name	status	ECTS
Basic module A: Global Studies	compulsory	29
<i>Two modules out of B through F</i>	<i>mandatory choice from B-F</i>	<i>24</i>
Module B: Law and Politics		12
Module C: Economics		12
Module D: History		12
Module E: Environment, Climate and Technology		12
Module F: Culture, Religion, Society and Gender		12
Module G: Practical Experience	Compulsory	18
Module H: Master module (thesis etc.)	Compulsory	37
Free electives	free choice	12

This curriculum is available online in pdf or html format (GS 2010). As of October 2010, the first group of some one hundred students started this curriculum. As an important consequence of the above curriculum changes, the crucial cognitive basis of this interdisciplinary master's curriculum is to be conveyed in the course of the so-called '*Basics of Global Studies*' (Basics of GS 2011) lecture with 15 ECTS (within basic module A) containing input from all disciplines that comprise GS. Because only two modules from B to F have to be selected from the 'advanced' list of courses, in a 'pessimistic' scenario a student would pass only one or two weekly semester hours (~4 ECTS) of several of the interdisciplinary constituents of 'Global Studies'. The seven year long planning process of the SC GS, however, has always tried to ensure thorough interdisciplinarity across *all* modules.

A very important component of the final curriculum is practical experience (module G in Table 2) that has to be acquired outside the university, in the sense of a 'reflective practice' (Malone and Wilder 2008). In the spirit of the pedagogy of Freire (1970), the immer-

sion into the real living situation of deprived people is the objective of this practical exercise including a required academic analysis, ‘inquiry’ and ‘reflection in action’.

5. Facts and Figures for the GS Master’S Curriculum

As compared to the facts and figure pertaining to the ‘bundle of electives GS’ presented in Ahamer *et al.* (2011: 23–33), this chapter shows statistics on the GS master curriculum.

Fig. 5. The central lecture is ‘Basics of GS’. Distribution of the 158 enrolled students for the first academic year 2010/11 according to their disciplinary origin. Only 49 are typical GS master’s students (top row), the others have selected this lecture from their curriculum, possibly to switch curricula later on

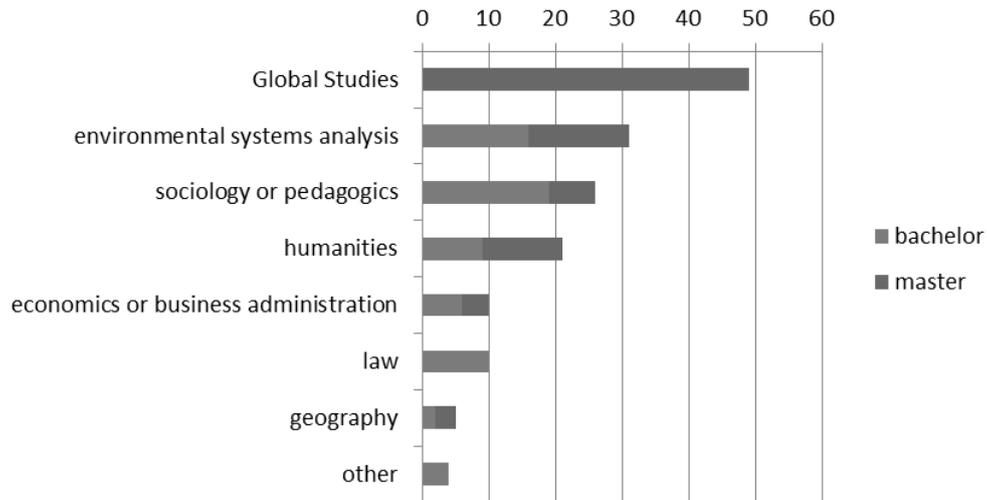


Fig. 7 shows that only 31 per cent of the students enrolled in the introductory and key lecture ‘Basics of Global Studies’ are typical master’s students in GS, the others pertained to other curricula and selected this core lecture as an elective for their own curriculum, possibly partly with the goal to start GS when having finished their bachelor’s degree. Fig. 8 identifies the year of entry into studies (at Austrian universities) by using the immatriculation number and shows that most students are in or around their fourth year of studies.

Fig. 6. Years of entry into studies (at Austrian universities) for the students having enrolled in the first year of the GS master's programme in Graz

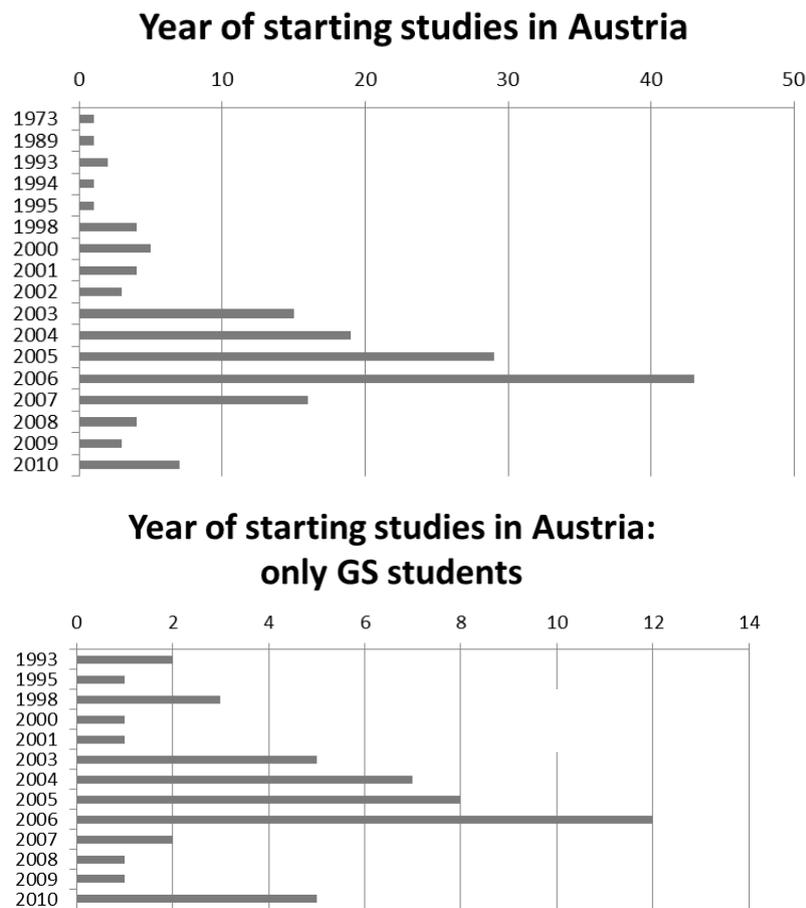


Fig. 9 shows that the marks for the key lecture 'Basics of GS' (at left) were composed by six components with an almost similar degree of difficulty (at right, symbolized by the columns in Fig. 1). Most students reached only around half of the possible points, that is the breakeven for a positive mark. Differences between the subsample of GS versus other students were significant only in sociology and culture (Fig. 10). The next chapter provides possible reasons, namely a structured dialogic online procedure that was followed mostly only by GS students.

Fig. 7. Results for the exams in 'Basics of Global Studies', the core lecture of GS Graz in 2011 (at left), as composed by the 6 'interfaculty' disciplines (at right)

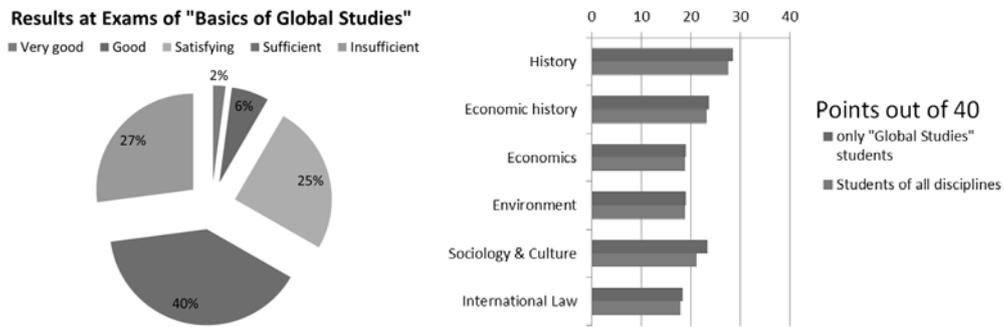


Fig. 8. Comparison of the achievements of students from different disciplines in the lecture 'Basics of Global Studies' in 2010/11, ordered from best to worst total achievement (light grey = on average better in this discipline than Global Studies students, bold = worse than Global Studies students on average); BA = bachelor, MA = master. Best achievers were philosophy students, GS students were only slightly better than the average in all disciplines

Curriculum	History	Economic History	Economics	Environment	Sociology	Culture	Internatl. Law	Total
	Philosophy Bachelor = BA	34.0	32.0	25.0	25.0	19.0	11.2	
Philosophy Master = MA	33.0	29.0	30.0	20.0	14.0	9.5	17.0	152.5
Environment (Econ.) MA	24.0	19.0	13.0	31.0	5.0	10.9	35.0	137.9
Sociology BA	22.5	25.5	22.0	20.0	12.5	14.2	20.5	137.2
Global Studies = MA	28.6	23.7	19.1	19.0	12.1	11.3	18.4	132.2
Environment (Science) MA	28.0	23.0	20.0	20.0	10.0	9.6	19.0	129.6
Environment (Econ.) BA	31.0	23.5	18.5	25.5	4.5	4.5	12.0	119.5
Law	21.0	27.0	11.0	19.0	16.0	5.0	17.0	116.0
Economics BA	28.0	25.0	21.0	16.0	9.0	4.4	12.0	115.4
Education MA	36.0	22.0	18.0	8.0	6.0	8.6	8.0	106.6
Business administration BA	15.0	23.0	12.0	11.5	6.0	5.5	21.0	94.0
Translation Engl., Span.	31.0	13.0	17.0	0.0	7.0	7.4	11.0	86.4
All disciplines	27.6	23.2	18.9	18.8	11.2	10.1	18.0	127.8

6. IT may Act as Turbo for Dialogic Learning

Out of the 8 lecturers teaching the 6 main disciplines taught in 'Basics of GS' (see right in Fig. 9), only the author made extensive use of information technologies (IT) for learning, for example, web-based learning (Ahamer 2011c). The other lecturers only provided course notes as slides via email (including additional reading material). Therefore the statistical material presented may hint at the usefulness of e-learning strategies for multicultural learning.

6.1. Lessons from a guided peer-review process

Earlier experiences have suggested to use an online discussion forum (part of the WebCT learning platform, see Fig. 11) not only for downloading lecture notes but especially for writing and mutually reviewing students' standpoints (Fig. 12) which does pose a framework for repeating and improving students' achievements. According to the lecturer's impressions, the quality of written work has doubled, especially for previously weak students. A sizeable number of students comes from outside Austria, for example, from all three former conflict parties in former Yugoslavia (however, cordially socializing in Graz) or from Muslim Africa, thus representing a true multicultural setting. While most of the students already hold a bachelor's degree and are at master's level (see at left in Fig. 10), many are still inexperienced in writing differentiated views on intercultural issues evaluating several viewpoints at a time. A web-based discussion forum enables students

1. to take enough time to review their peers' work in very detailed manner, word by word, and to comment on their classmates' texts (~10 comments per students on average);
2. to update their own previously authored texts in the light of the *reviews other colleagues have received* (for didactic reasons this was a double-open review, versus a double-blind review);
3. to receive very specific review comments from their peers (typically from 3–4 colleagues) that allow authors to judge the focus and variance of received comments;
4. to receive specific and strict comments from the lecturer (typically 10–20 comments, length of comments was often equal to the length of the original text, each single citation was retrieved and double-checked, often via Google Books);
5. to iteratively and considerably improve their own texts before final assessment by the lecturer which is not at all common in the *de facto* Austrian university system.

Fig. 9. The 'Basics of GS' platform (at left) and the distribution of achievable points for the subject 'culture': 20 points can be achieved by answering four questions during an overloaded 5h written test (for all 6 subjects) or also by beforehand writing a reviewable standpoint (5 p.) and 6 shorter examples 'Ex' (in sum 10 p.) using a web discussion forum.

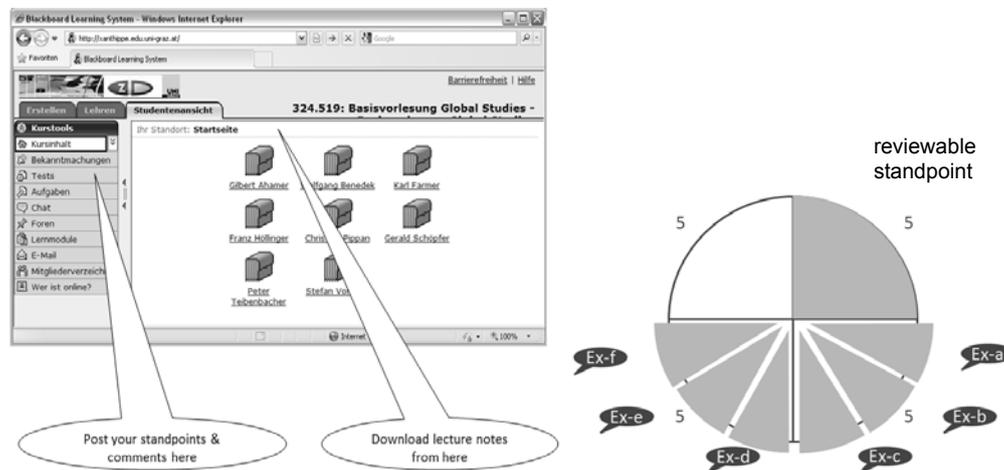
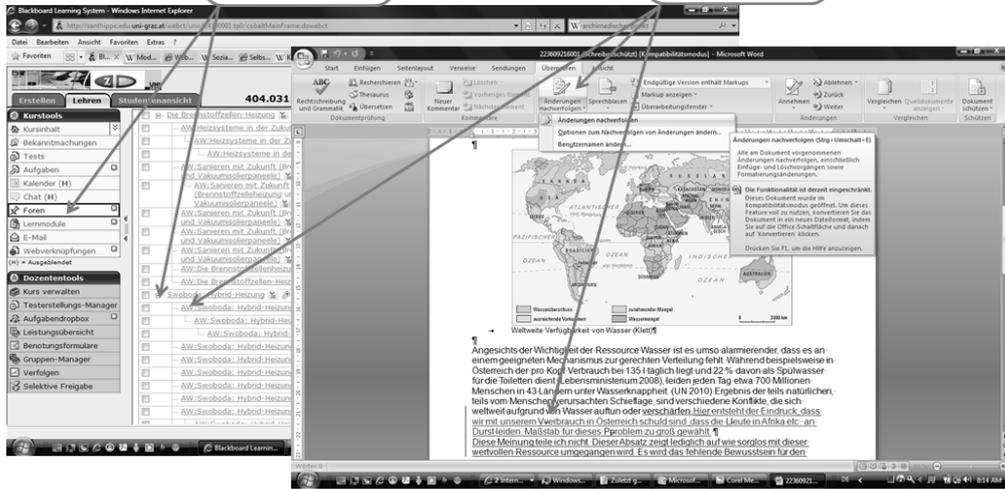


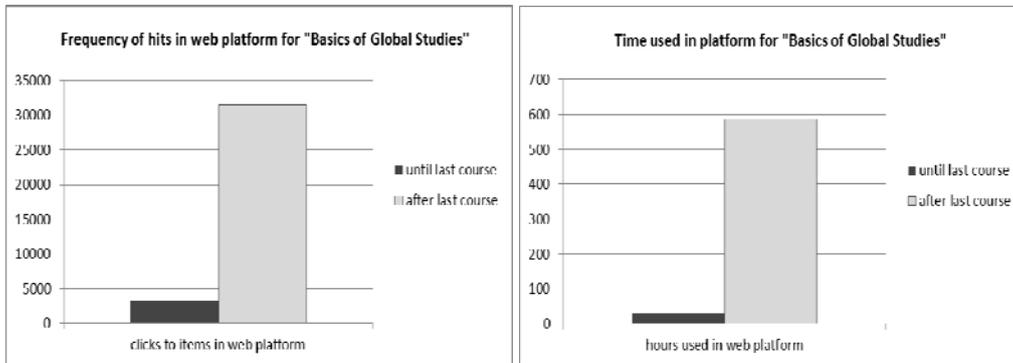
Fig. 10. Usage of reviews was enabled for the 'Basics of GS' lecture. Students (1) deepened their academic competences and (2) grew together as a social group by this didactic strategy

➤ Usage of (1) discussion fora inside WebCT for (2) reviewed docs in a thread



In this (guided) review process the communicational characteristic was that the lecturer provided strict additional reviews by himself and that marks were announced to be highly competitive for this lecture on 'culture'. Thus, the strikingly high activity of students on the web platform (Fig. 13) makes sense: 90–95 per cent of all activities took place after the face-to-face lectures in the lecture hall during very intense two months between lectures and exam.

Fig. 11. The frequency of web platform usage is highest after the last lecture in the course. In the key GS lecture, 90 per cent of hits and 95 per cent of time was registered after the last lecture of the author. This underlines that a web platform adds a turbo to learning.



During a total of 2053 sessions of an average duration of 16 minutes, over 31000 hits were registered on the WebCT web platform; sessions (16 on a daily average) peaked around 13:00 to 14:00, mainly in the months of December 2010 to January 2011. While all 'Ba-

sics of GS' face-to-face lectures ended in January (and lectures specifically on culture already in December), students received the additional assignment from the 'culture' lecturer for (a) the reviewable standpoint and (b) the six examples 'Ex' (Fig. 11) with a deadline of January and February, respectively, which created the eminent *post-course* web activity (light brown areas in Fig. 13 and Fig. 16).

The underlying didactic and pedagogic idea was to use the large dialogic potential of the web platform in order to strengthen students' understanding of standpoints different from their own (Ahamer and Jekel 2010). Fig. 14 shows that this target was reached quantitatively, both if measured by means of time and hits. Expressed in an aggregated manner, over 128 hours were spent in discussion fora (45 per cent of all sessions) while 101 hours were spent retrieving and reading files (35 per cent of all sessions) by students (first two bars in Fig. 15). The insert in Fig. 15 stresses again the fact that work on the peer-reviewable 'standpoints on developmental theories' has exclusively taken place after the last lecture in the lecture hall. The essence of this assignment was to interparadigmatically compare opposing approaches, of which 'neo-colonialism' and 'dependency theory' might represent extreme views.

Fig. 12. Both the measured distribution of web page hits (at left) and of invested time (at right) shows that dialogic tools in the platform (posting, reviewing) were used more frequently than monologic tools (content conveyed by lecture notes)

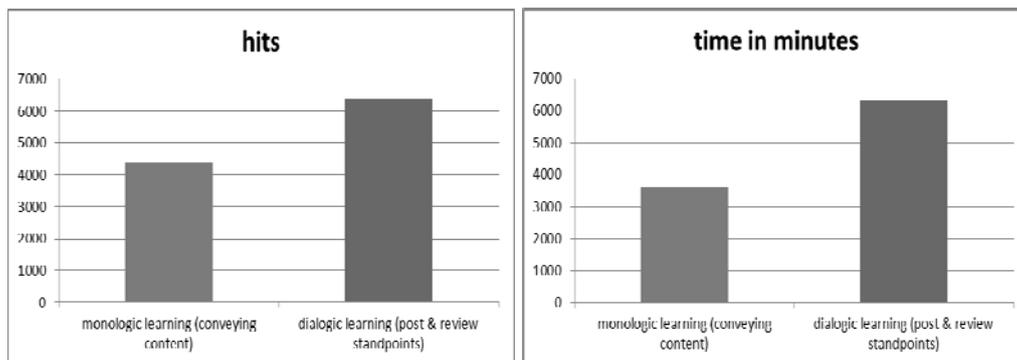


Fig. 13. Tools: more 'for a' than 'files' or 'folders'!

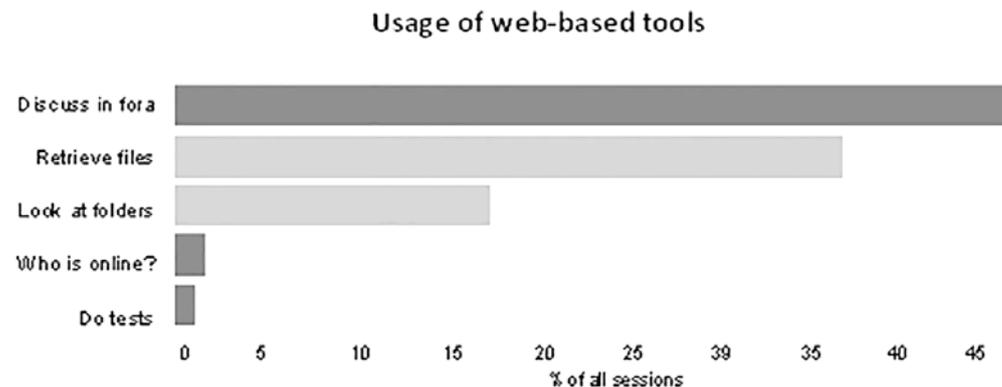
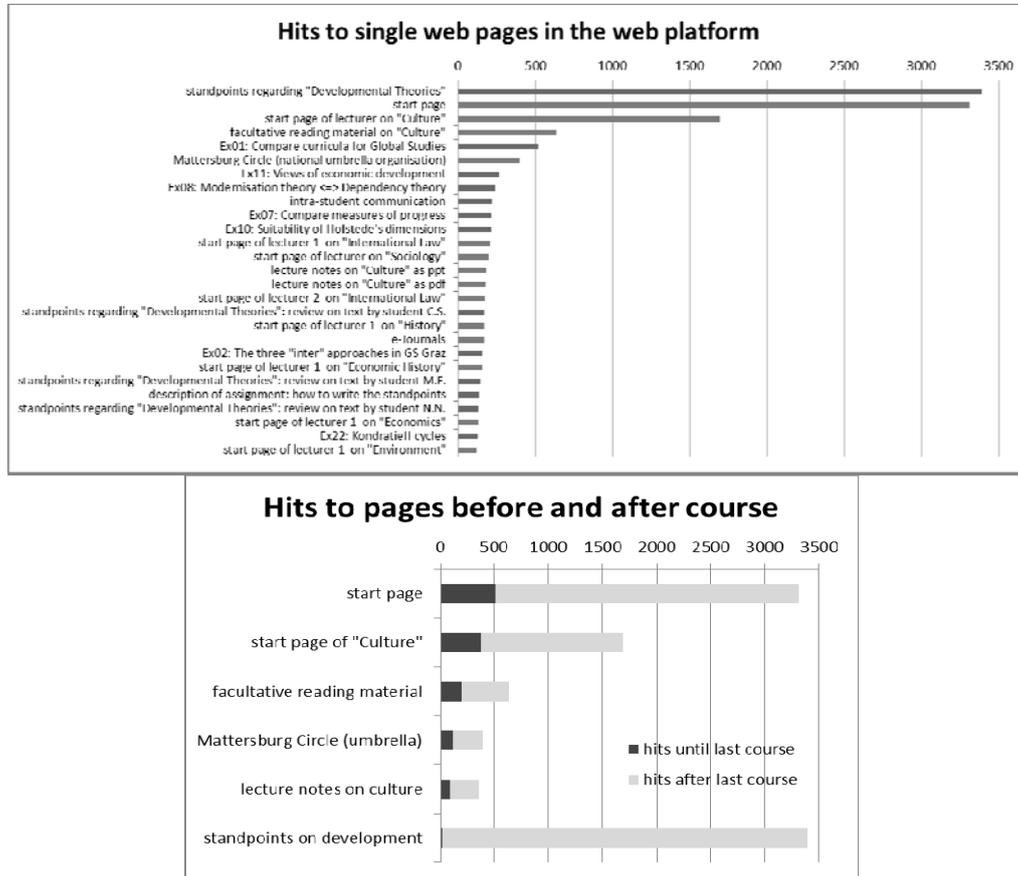


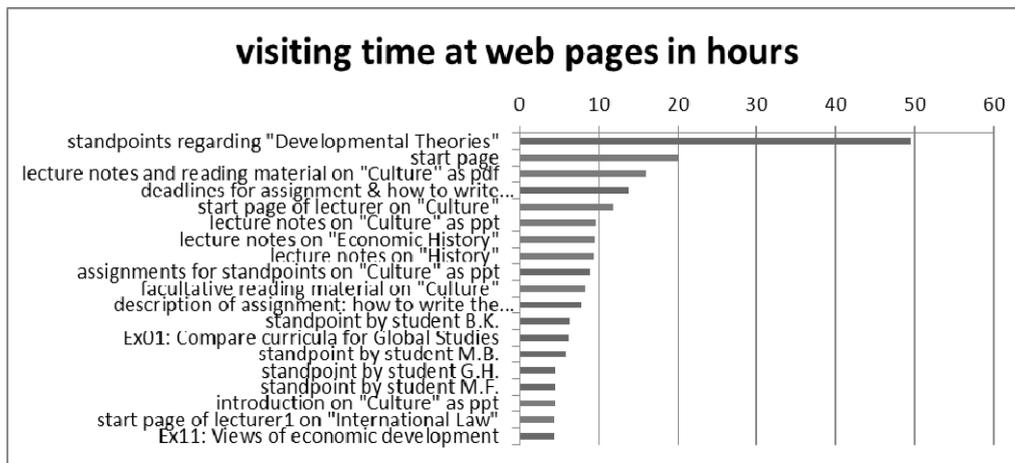
Fig. 15 shows that discussion fora (dialogic tools) received more hits than downloadable files or (monologic tools).

Fig. 14. Hits to single web pages on the web platform (at left). Insert at right: the most important web pages are differentiated into "before" and "after" the last course at the lecture hall in order to quantify the "virtual only" student activities: the peer-reviewable "standpoints" were worked on only after the end of face-to-face courses



The single one most hit page was the one leading to the '1 page standpoint on diverse developmental theories' that had to be reviewed by all students in order to foster interparadigmatic understanding (top bar in Fig. 16 and Fig. 17).

Fig. 15. Visiting times for single web pages on the web platform. The page for the reviewable standpoints on developmental theories was by far the most visited of all pages – a clear success for dialogic and discursive learning



Both Fig. 16 and Fig. 17 show that single web pages regarding *dialogic learning* were used more frequently than for *monologic learning*. The conclusion is that students prefer a communicative structure when studying. Hence, IT-based learning constructed as dialogue is far more accepted by learners than mere ‘file download’ – which is an embryonic style of e-learning.

It was already mentioned earlier that the key skill in intercultural learning is the understanding of views on complex realities that differ from one’s own. The listed items in Fig. 16 and Fig. 17 include assignments such as ‘Views of economic development’ and ‘Modernisation theory versus Dependency theory’ that lie at the heart of conceptual tensions in developmental policy and practice. By receiving and giving reviewer's feedback to and from colleagues (and the lecturer) students learn to understand facets of the complex field of economic, cultural and institutional development characteristic for ‘global change’. It is hence essential that the didactic *structure* of this course stays in analogy to the course’s *content*, namely using a dialogic emphasis.

Both Fig. 16 and Fig. 17 show that some of the students’ postings reached a better hit number and visiting time than original ‘course notes’ delivered by lecturers. This can be understood as: students use *more* of their own (intermediate) results for learning than (some) lecturers' texts!

Fig. 16. Cumulative frequency distributions of sessions and total time, of monologically oriented web activities (folders and files visited) and of dialogically oriented web activities (postings read and published, chat pages). Postings were the main means of delivering (dialogic) results while chats were not especially encouraged

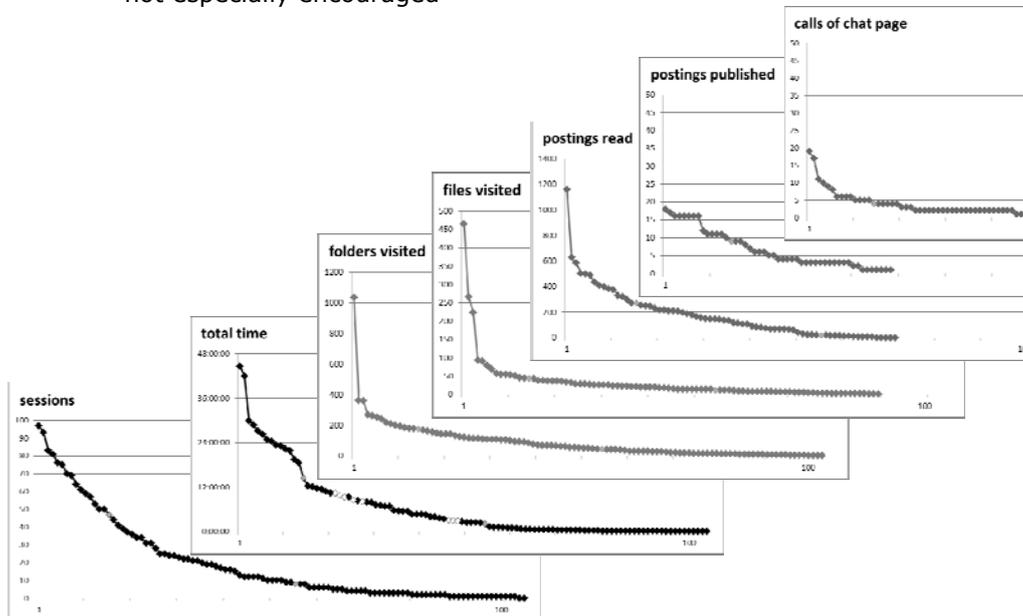


Fig. 18 shows six parameters applying to all 105 students in a manner sorted according to their values. Such a cumulative frequency distribution is able to give aggregated insights into basic descriptors of social dynamics among the students. The ‘sessions’ curve shows “normal” statistical behaviour, the ‘total time spent on the web platform’ curve suggests hypothesizing two clusters of 15 and 55 students (marked by green points) according to the amount of time they invested.

As an orientation, a number of 50 students (equalling the median of all 100 students active on the WebCT, or the number of students immatriculated in GS, or the number of students spending more than 3 hours on the WebCT) is used for the following aggregate assessments:

- while the most active student completed ~100 sessions, half of them had at least 10 sessions;
- while the best web watcher spent 44 hours on the platform, half were there >3 hours;
- while the most active visitor visited over 1000 folder pages, half visited >10 folders;
- while the most active downloader viewed 470 files, half viewed >12 files;
- while the most active forum member viewed ~1200 posts, half viewed 20 posts;
- while the most active forum poster published 18 postings, half posted 1 or more.

A thorough analysis of individual students' performance shows: out of the 45 students who attempted the written exam for the entire course on ‘Basics of GS’, three never accessed the WebCT or did not even register there. The nine students who failed this exam are marked with a white point on the ‘total time’ curve of Fig. 18, they all spent less than

twelve hours on the web platform. On the other hand, all the 20 students with the highest total WebCT presence time passed the exam at their first attempt, which indicates the usefulness of IT-based learning.

This principal result is more striking when singling out only the ‘culture’ performance: all (but one) of the 15 students with the highest amount of time spent on the web platform were ranked among the best 17 performers in the subject ‘culture’ (Fig. 20 top right).

When looking for correlations among descriptors for students’ performance (e.g., displayed as ordered series in Fig. 19), it becomes evident that diverse subject matters are not closely correlated with each other (Fig. 20). A tentative ‘interdisciplinary landscape’ or ‘sociogram’ of the GS subject matters is displayed in Fig. 21 when using the $1/r^2$ values (see table) as distances between the circles.

Fig. 17. Comparison of students’ performance at the exam for different scientific disciplines does not visibly correlate which is typical for interdisciplinary curricula

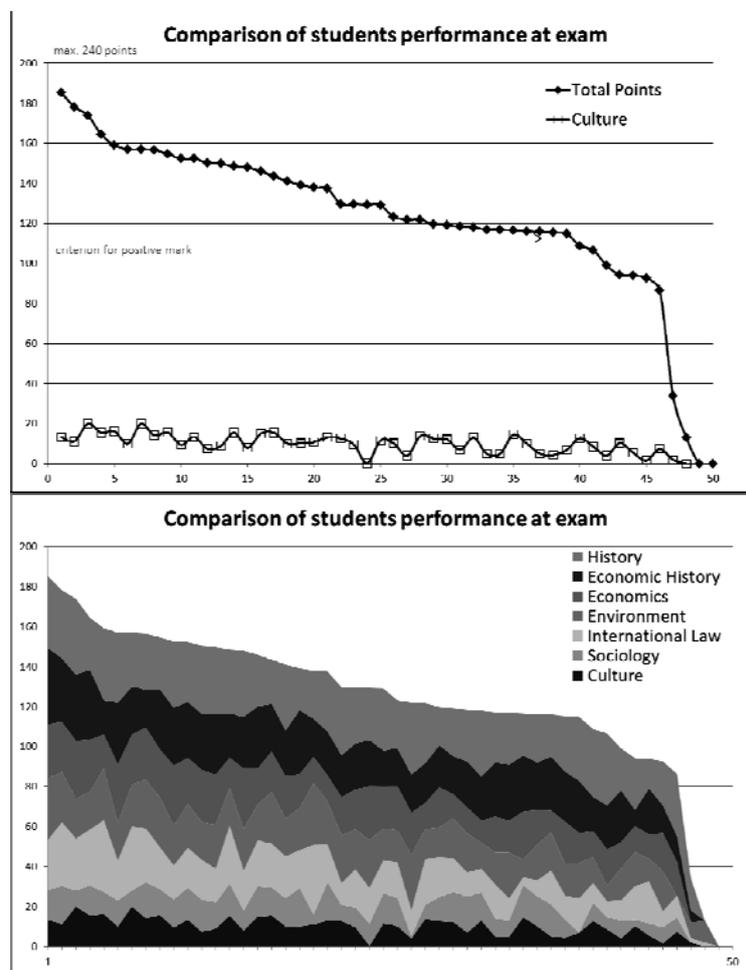


Fig. 18. Ordered graphs of points achieved in ‘culture’ (above left) show that half of all students were evaluated positive in this discipline. The number of

postings published in the same sequence of students suggests an existent but not very striking correlation (above right). In general, correlations between the achievements in 'culture' with the achievements in other disciplines vary widely, as expectable for interdisciplinary lectures (below)

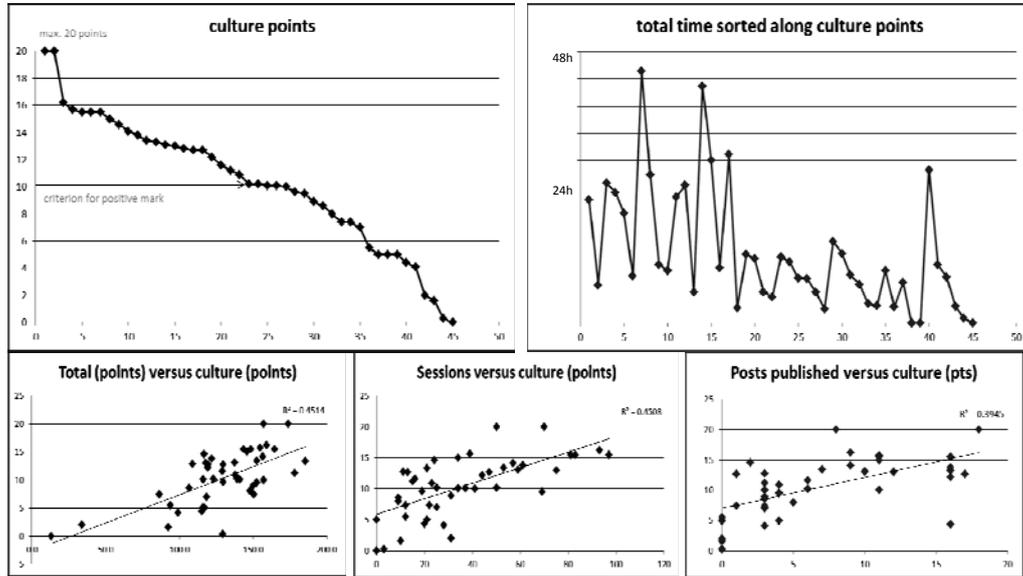
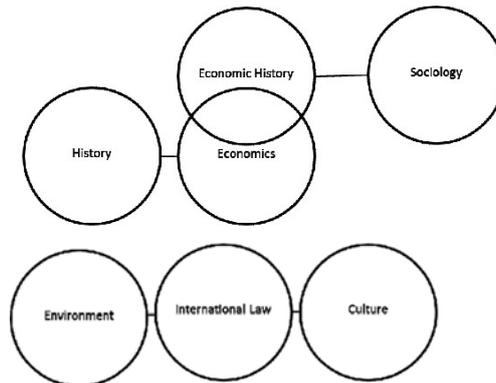


Fig. 19. Above: Correlations between achieved points in the individual disciplinary subjects are characterized by the coefficient of determination r^2 . Below: Tentative links between the subjects when relying on these correlations of the exam results

r^2	History	Economic History	Economics	Environment	Sociology	Culture
Economic History	0.05					
Economics	0.33	0.44				
Environment	0.09	0.16	0.16			
Sociology	0.04	0.30	0.17	0.07		
Culture	0.16	0.13	0.13	0.06	0.18	
International Law	0.13	0.16	0.17	0.34	0.01	0.38



In total, the author thinks that the most important *lessons from this 'guided peer review process'* are well-accepted students' opportunities:

- to receive friendly but strict reviews from both student colleagues and the lecturer and to considerably improve text quality on the basis of such a strict review process;
- to learn from reviews other students have received (this was made use of widely, the 25 most active students read more than 200 postings!);
- to create a social web that was based on more than five minutes of accidental conversation in the lecture hall or on the corridors.

Thus, the author thinks that IT is able to strongly contribute to a *sound academic social network between learners* based on academic excellence that would not have been possible without IT tools such as web platforms.

A guided review situation favours motivation oriented towards 'fulfilling *external targets*'.

6.2. Lessons from an unguided peer review process

Another (unguided) review process was reported earlier in great statistical detail (Ahamer 2011a, 2011b). As a contrast to the experience above, a more unguided and hence autopoietic social process exhibited rather orientation at 'what do students believe that their colleagues would appreciate' and rather led to mutual assistance, quite similar to 'citation cartels' hypothesized by some authors to exist even at later stages of academic careers.

In such unguided processes, the two following self-organising (autopoietic) social mechanisms seem to take place (when differentiating between more 'pragmatic' and more 'idealistic' students):

(1) The guiding motivation for the two subsets (more 'pragmatic' and more 'idealistic' reviewers) for their *actions* (*i.e.* what they give) seems to be as displayed in Table 3.

Table 3. Guiding motivation for the two subsets ('pragmatic' and 'idealistic') reviewers for their actions (what they give)

<i>Actions</i>	<i>pragmatic reviewers</i>	<i>idealistic reviewers</i>
How many reviews do I perform?	• Certainly the more I receive	• I don't care how many I receive
How mildly will I perform my reviews?	• Certainly the milder my received reviews are	• I don't care how mild my received reviews are

(2) The guiding expectation for the two subsets (more 'pragmatic' and more 'idealistic' reviewers) for their *receptions* (*i.e.* what they receive) seems to be as displayed in Table 4:

Table 4. Guiding expectation for the two subsets ('pragmatic' and 'idealistic') of reviewers for their receptions (what they receive)

<i>reactions</i>	<i>pragmatic reviewers</i>	<i>idealistic reviewers</i>
How many reviews do I receive?	• certainly the more reviews I have given	• I don't know, possibly the milder I have been
How mild will my received reviews be?	• certainly the milder my distributed reviews were	• I don't know, possibly the more reviews I have received

From Table 3 (left) it can be concluded that 'pragmatic reviewers' have two potentially inciting arguments for higher levels of own activity that both refer to what they have ex-

perienced themselves so far. Systemically speaking, this constitutes a feedback circle that might be coupled back in a proportionate manner (*i.e.* positive feedback circle). ‘Idealistic reviewers’ have no such feedback loop constituted by their pattern of motivation – but they appear to be more focused on the ‘real target’.

This means that individuals inclined to ‘pragmatic behaviour’ might either slip into a self-enhancing circle of ever more review activities or else slip into a loop where already low activity is still lowered by the mechanism of motivation. Similarly, from Table 3 (right) it can be concluded that ‘idealistic reviewers’ have a generally lower level of readiness to see or even accept such structural driving factors for their success. Their motivation grounds elsewhere, most likely in ‘the (ethically sound) quality’ of their contribution.

The same structure of deliberations, only for expectations of what will happen to them is shown in Table 4. The logical structure of the left column allows for a positive feedback circle (dynamic), the logical structure of the right column does not (static).

Table 5. Constituents for the two subsets (‘pragmatic’ and ‘idealistic’) of students: what do they depend on?

	<i>pragmatic reviewers</i>	<i>idealistic reviewers</i>
Logical structure	• positive feedback circle (<i>dynamic</i>)	• no positive feedback circle (<i>static</i>)
Source of motivation	• <i>exogenous</i>	• <i>endogenous</i>

Table 5 finally suggests a more dynamic structure of the ‘motivation engine’ which could explain that ‘non-idealistic but pragmatic’ behaviour is helped by this feedback circle and therefore attains higher activity levels as compared to the instructor’s assessment alone.

An unguided review situation favours motivation oriented towards ‘fulfilling *internal* targets’.

Another conclusion is repeated from above: In general it becomes clearly visible that both functionalities of course design – namely ‘optimizing the pattern of social flow’ and ‘creating a true picture of the students’ competence’ – do not necessarily always act in the same direction; ideally both functionalities should be separated and should complement each other.

7. Conclusions

Two interdisciplinary and intercultural curricula named ‘Global Studies’ (GS) are currently implemented at the University of Graz, in the second largest city in Austria. Since 2004, in over 50 meetings the Steering Committee ‘Global Studies’ as a peer-oriented dialogic and discursive panel has designed their profiles. It was complemented last year by a ‘Curricula Commission Global Studies’ defining the details of the master’s curriculum.

1. One ‘*bundle of electives Global Studies*’ was launched in 2004 and has received 334 enrolments from students until summer 2010, one third of them from the Department of Humanities. A rich interdisciplinary setting is characteristic for the student cohorts populating GS and passing at least two credits from each of six modules (1) Globalisation, Development, Sustainability, Gender – An Introduction, (2) World History, (3) World Economics, (4) World Politics and International Law, (5) World Cultures, World Religions and World Ethics, (6) Organisational and Social Skills.

2. A new ‘Global Studies master’s curriculum’ was implemented in autumn 2010 amounting to a total of 120 ECTS credits. 29 ECTS of courses from an integrative ‘basic module’ must be taken. These are complemented by free electives from five modules, out of which two must be chosen. Such a curriculum appears presently the best approach to promoting the ideals of interdisciplinarity and interculturality given the severe financial bottlenecks faced by Austrian universities.

The spirit and tacit constitution of ‘Global Studies’ at Graz has always been inclusive, not exclusive. Strategic decisions were based on a broad consensus of Steering Committee members who were dispatched from their departments in order to materialise the views of different scientific cultures, thus creating another instance of an ‘intercultural learning process’.

All the above GS-related initiatives have been implemented using *the learning platform WebCT*.

Experience has shown that this *wide variety of web-based approaches* is able to cover sufficiently well the needed variety of (i) *scientific approaches*, (ii) *didactic procedures* that synthesise opposing world views and integrate antagonistic understandings and (iii) *communicational profiles* that are materialised in the diversity of students’ scientific cultures.

The experiences from the first year of the key interdisciplinary lecture ‘Basics of Global Studies’ suggests that e-learning facilities represent a ‘turbo’ to student learning, especially because of a boost of (web-based) review activities that occur along a guided structure implemented by the author. A peer review system combined with a strict review by the lecturer proved to be the best system for maintaining high academic quality while achieving high density of student-student interaction in this multicultural environment.

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