Maximizing Student Inclusion as an Expression of Person-Centered Education

Renate Motschnig-Pitrik, Michael Derntl, Sonja Kabicher
University of Vienna
Faculty of Computer Science
Rathausstrasse 19/9, 1010 Wien, Austria
renate.motschnig@univie.ac.at, michael.derntl@univie.ac.at, sonja.kabicher@univie.ac.at

Abstract. Students’ lacking interest in courses, non-attendance in lectures, and consequent high drop-out rates are much too common phenomena in higher education. From a psychological perspective this is not too surprising, as long as the transfer of strictly pre-specified intellectual content remains central and students’ goals, needs, expectations, interests and feelings are vastly ignored. In this paper we first elaborate the importance of student inclusion from a person-centered perspective, based on the attitude of positive regard. As a consequence, we derive activities and reusable technology-enhanced learning scenarios that promote student inclusion. Students’ reactions, results from empirical studies and drop-out rates being almost zero in small courses are used to confirm the essential importance ad added value of student inclusion in significant learning.

Introduction

Often instructors complain about students’ staying away from class and their lack of motivation and interest. Viewed from a humanistic theory of personality and behavior this can be explained as a natural consequence of a considerable mismatch: The still prevalent educational offerings – in particular lectures – often focus solely on the transfer of strictly pre-specified intellectual content and vastly ignore what students think and feel at each moment as a consequence of their inherent and directional tendency to actualize their self-structure. – In traditional higher education it is still quite rare to “let the whole student in”, to trust his/her inner directional flow towards actualizing his/her potentialities and developing towards a more experienced, knowledgeable, mature or “wise” person. Instead, more and stricter regulations prescribe the direction of what is figuratively referred to as “instruction” or “training” from an outside perspective. Along this, more and more assessment with regard to a myriad of externally defined standardized features and criteria is required to make sure the “instruction” was properly given and the students were “trained” properly to exhibit the desired, predefined outcomes. Concurrently, following this trend, less and less attention is paid to the inherent, directional inner processes in both students and educators. In other words, the self-organization properties of dynamic systems are downplayed to a minimum.

Viewed from a humanistic perspective of learning (Rogers, 1983), however, a core condition for significant, meaningful, whole-person learning, which is left unattended in (academic) course much too often, is to establish and to maintain real, trustworthy interpersonal relationships between facilitator and learners. This is due to the humanistic insight that the structure of the self is formed as a result of the interaction with the environment, and particularly the evaluational interaction with others (Rogers, 1951, p. 498). This vital, quite old proposition from Rogers’s Theory of Personality and Behavior (Rogers, 1951) has been confirmed by more recent findings in cognitive neuroscience (Damasio, 2003). Asking what it means for education, we derive the following consequence: Given this pivotal role of interaction for the forming of the self structure, as stated above, the primary task of any serious educational offering – namely one that aims at significant as opposed to just superficial, shallow, learning – must include interaction as a central feature. Thinking further, interaction always requires at least two sides that interact and are in relationship with each other. In educational situations this appears to be possible in particular if learners are included in interactions and their directional tendencies are respected.

A recent paper (Motschnig, Derntl, Figl & Kabicher, 2008) discussed the inclusion of students in determining learning goals. While student inclusion is central to the learner-centered framework (McCombs, 2003; McCombs & Vakili, 2005), the concept of Inclusive Universal Access (IA) in technology-enhanced education has been introduced in Derntl and Motschnig (2007). An action research study of a sample course in which students were included in co-deciding all aspects of learning was described in Motschnig and Santos (2006). This paper focuses on
attitudes and activities of facilitators as well as web-enhanced learning designs that aim at maximizing student inclusion. From a theoretical-experiential perspective, our educational endeavors are grounded in and derived from the principles of humanistic education as realized in person centered learning (Rogers, 1983; Barrett-Lennard, 1998; Cornelius-White, 2007; Cornelius-White & Harbaugh, 2010) that we have continuously been enhancing through thoughtful integration of web technology (Bauer, Derntl, Motschnig & Tausch, 2006; Derntl, 2006; Motschnig, 2005).

The next section summarizes person-centered principles of learning including the interpersonal conditions for significant learning. It aims to highlight the necessary (inter)personal attitudes that make student involvement more likely and effective. In the main part of the paper, facilitators’ activities and scenarios for actively including students in several aspects of learning during computer science courses are discussed. Examples of such scenarios are: An “interactive mode” of lectures; solving small team tasks during the lecture; online reaction sheets; including student-teams in designing and organizing course units; the use of student blogs. The proposed scenarios and attitudes are derived from our educational experience that we regularly subject to educational research, including content analyses, participatory action research, qualitative and quantitative surveys. This allows us to explain and to confirm the effects of our practices by research results and in terms of students’ reactions. Finally, the costs and benefits of including students are discussed by taking on the perspective of students as well as staff.

With this paper we first of all aim to allow readers to better understand why student inclusion and constructive interpersonal relationships are the essence for significant learning. By illustrating and discussing real-world scenarios, we aim to share some of our own and our students’ experience in the form of simple, reusable models and ideas for research designs.

The Person-Centered Approach

To allow for a better understanding and grounding of inclusion, let us clarify our usage of terms and recollect some principles and propositions from a learner-centered and person-centered perspective. Student inclusion, in this paper, shall refer to involving the students who participate in some educational offering in as many aspects of this offering as possible. This encompasses including students at all levels of their personalities: the level of intellect, skills, attitudes, and feelings. Also, students are intended to be involved in both oral and online, mainly written ways of expression. Inclusion can be seen on two levels: Firstly, the design level of the educational offering should consider the characteristics of its target group, such as expertise, linguistic background, computer literacy, etc. Secondly, the manifestation level, i.e. the concrete happening/experience of the course should let students actually participate in the course by offering them a safe and trusting environment and inviting them in.

Within the learner-centered framework (McCombs, 2003), several of the 14 learner-centered psychological principles address student inclusion in some form. For example Principle 3: “Construction of knowledge” claims that: “The successful learner can link new information with existing knowledge in meaningful ways”. As a further example consider Principle 11 stating that: “Learning is influenced by social interactions, interpersonal relations, and communication with others”, or Principle 13 claiming that: “Learning is most effective when differences in learners’ linguistic, cultural, and social backgrounds are taken into account”. In general, research underlying the learner-centered framework shows that learning is enhanced in contexts where learners have supportive relationships, have a sense of ownership and control over the learning process, and can learn with and from each other in safe and trusting environments (McCombs, 2003).

The Person-Centered Approach (Rogers, 1959) goes even further in explaining why student inclusion is essential and under what conditions deep, meaningful learning, referred to as significant learning, is most likely to occur. Carl R. Rogers (Rogers, 1983, p. 20) defines significant learning as the combination of “[…] the logical and the intuitive, the intellect and the feelings, the concept and the experience, the idea and the meaning. When we learn in that way, we are whole.” The facilitation of significant learning rests upon certain attitudinal qualities that exist in the relationship between the facilitator and the learner. Before we turn to these qualities let us point to those four (out of 19) propositions of Rogers’s Theory of Personality and Behavior (Rogers, 1951) that best illuminate the importance of student inclusion in learning:

- “IV. The organism has one basic tendency and striving – to actualize, maintain and expand the experiencing organism.”
The term that has most often been used for this directional tendency toward wholeness is the “actualizing tendency”. It is the inherent tendency of the organism to develop all its capacities in ways which serve to maintain or enhance the organism. It involves development towards the differentiation of organs and functions, expansion in terms of growth, expansion of effectiveness through the use of tools, expansion and enhancement through reproduction. It is development toward autonomy, and at the same time it appears to head in the direction of socialization, as humans have a need for positive regard. It should be noted that this basic actualizing tendency is the only motive which is postulated in this theoretical system and that it is the organism as a whole which exhibits this tendency.

- “V. Behavior is basically the goal oriented attempt of the organism to satisfy his needs as experienced, in the field as perceived.”
- “IX. As a result of the interaction with the environment, and particularly as a result of evaluational interaction with others, the structure of self is formed – an organized, fluid, but consistent conceptual pattern of perceptions of characteristics and relationships of the “I” or the “me,” together with the values attached to these concepts.”
- “XI. As experiences occur in the life of the individual, they are either a) symbolized, perceived, and organized into some relationship to the self, b) ignored, because there is no perceived relationship to the self-structure, or c) denied symbolization or given a distorted symbolization because the experience is inconsistent with the structure of the self.”

In a nutshell, proposition V makes it clear that what is experienced at the moment in the learner’s perception of the educational situation drives learning behavior. This is why the learning atmosphere and the moment to moment activities, attitudes, feelings, and meanings are essential. Even the best active learning design will not be effective if the climate in class does not genuinely encourage students’ participation. Proposition IX outlines the importance of relationships and interaction, while proposition XI says that, basically, only experiences with a perceived relationship to the self-structure are organized in our self-structure such that they can be recalled later. Other experiences are ignored or distorted. In other words, if the self structure of a student is not touched by a learning experience, the learning will not be symbolized accurately or will be ignored.

Rogers found that the actualizing tendency can unfold itself best, or in other words, students learn most significantly, in an atmosphere or climate in which the facilitator (instructor, teacher, etc.) holds three core attitudes or qualities such that students perceive them, at least to some degree (Rogers, 1961). These attitudes are:

- Realness, with synonyms such as congruence, transparency, genuineness, authenticity; it also includes a lived, moment to moment openness to experience;
- Acceptance, else referred to as respect, unconditional positive regard, caring attitude, concern for the individual; it implies a non-judgmental attitude. In our view, student inclusion is a powerful expression of respect towards the student.
- Empathic understanding, a deep form of understanding of the meanings and feelings of the learner, including, in particular, the whole context of learning (Barrett-Lennard, 1998).

A challenging task in teaching/learning scenarios, hence, is how such interpersonal qualities can be transformed into providing a constructive atmosphere and activities that invite students to participate at various levels of their personalities and forms of expression.

**Activities and Scenarios for Maximizing Student Inclusion**

**Inviting Students In – Expressing the Desire for Inclusion in the Initial Course Unit**

Often, students come to a course with the expectation that they will be offered “knowledge inputs” that they are supposed to learn receptively, or that they will be required to solve exercises set by the instructor. Hence, the idea to participate, to engage in dialogue and discussion, to learn in self-initiated ways often is something very new that students need to grasp and convince themselves that it is something they can trust. In our view, setting a respectful, open, non-judgmental, and understanding atmosphere in class is a vital precondition for successful cooperation. In this atmosphere, the experienced attitudes of realness, respect and the facilitator’s deep understanding are the fundamental basis for communicating them to students. Of course, the means and ways of transmitting these attitudes differ with regard to the specific situation encountered in a course.
Small Courses

In general, we find it easier to communicate person-centered attitudes in smaller classes, like labs or seminars. This is because students can be addressed on a person-to-person basis, for example by proposing to introduce themselves, by producing flipcharts in small teams for exposing their expectations, by discussing ways and criteria for evaluation, by moderating team building based on students’ project ideas, etc. Typical students’ reactions to a successful initial invitation for inclusion – as derived from a recent seminar on professional communication – are:

– “The facilitator succeeded in creating an atmosphere which made it easy for us to express ourselves and build a community. As a result of introducing ourselves in the group I could acquire information that I could associate with all the unfamiliar faces, such that I could get to know them better and remember their names more easily.”

– “As we shared our expectations, I appreciated that we were heard and our wishes were taken into account. This ties me into the learning process more strongly than in a pure lecture.”

– “I experienced a warm and respectful climate in which each participant was granted equal space. In my view, the facilitator succeeded in picking us up exactly where we were.”

– “This was an engaging seminar. I look forward to the next units.”

Lectures

Engaging students in large lectures appears to be more challenging, although quite feasible. Although introducing oneself on a person to person basis is not possible, students can be invited to raise their hands on some questions of common interest, such as their preferred focus on more technological or social aspects of web engineering or their prior knowledge on the subject matter. Also, asking them for their expectations and documenting them on the blackboard or beamer prior to exposing the predefined learning targets can be used as an offering for more bi-directional communication and interest in the learners, if one can manage to take the students’ responses into account to a reasonable degree. Small ad hoc assignments (10 min) for small teams (e.g. pro’s and con’s of strictly defined processes in software engineering) allow students to get to know some of their colleagues, to retain their attention, to perceive different perspectives, and to experience the thrill before presenting their responses to a large audience. With technology support, the results of the small teams’ work can be put on the learning platform to illustrate the different perspectives approaches and taken, and can also be considered as bonus points in the grading process.

Reaction sheets

In courses in which individual units are blocked as workshops of three hours or more, students are encouraged to submit online reactions to the workshops. These reaction sheets have the format of free forms, introduced by a sentence like: “Please share your reaction to the previous workshop, in particular, what you liked, what you did not like such that it could be improved and what you think you take with you from the workshop.” They are visible to all course participants and the instructor. Honest and open communication needs to be established in the face-to-face workshops if it is sought to appear in the written reactions. In the first workshop, the offering of working with reaction sheets and their meaning and potential effect on follow-up course units is discussed with students and it is argued why non-anonymous reactions are preferred: They can be discussed directly in face-to-face sessions and furthermore counted as active participation amenable to consideration in the grade. The general sequence of activities in the reaction sheets scenario is depicted in Figure 1.

The authors read the reactions with much interest and excitement about how students perceived the workshop unit and how this compares with our own perceptions. The reaction sheets then are discussed with students in the face-to-face workshops and tend to have direct effects on the workshops. For example, breaks are extended if students complain that they were too short, or the amount of exercises or explanations is increased or reduced, based on the students’ feedback. Some students report they are equally interested in the reactions of their peers and, almost as a rule, the most essential learning is that students’ perceptions are different. In this respect, the reaction sheets convey the different perceptions and make multiple perspective-taking explicit. They also reflect how creative solutions to
authentic problems in class emerge from listening to and mutually respecting each other. Let us illustrate this by following three excerpts from online reaction sheets written by students participating in a course on communication and soft skills held at the Faculty of Informatics of the Masaryk University in Brno (MU Brno). The first two excerpts were written in response to the initial course block, the third one stems from the second block.

<table>
<thead>
<tr>
<th>Facilitator</th>
<th>Students</th>
</tr>
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<tbody>
<tr>
<td><strong>Reaction Sheets</strong></td>
<td><strong>Guidelines, information</strong></td>
</tr>
<tr>
<td>Introduce and request reaction sheets</td>
<td>Provide reaction sheets</td>
</tr>
<tr>
<td>Guidelines, information</td>
<td>Reaction sheets</td>
</tr>
<tr>
<td>Read reaction sheets</td>
<td>Discuss reaction sheets</td>
</tr>
</tbody>
</table>

![Figure 1: “Reaction Sheets” scenario.](image)

Jana\(^1\) writes:

“I liked the way, how the first block was conceived. There was a lot of discussion, but there was also theory and we played games. I expected that the whole block would be in English and I would be very hard for me to speak in English. But we discussed the topic English vs. Czech language and settled that we try to speak in English if it would be possible, but complicated topics will be discussed in Czech. After listening to arguments, why somebody wants to speak in English and on the contrary somebody wants to discuss complicated topics in Czech, it was easier to accept the agreement for me than if the teacher had said it without discussing.”

Peter was open towards sharing a critical remark:

“The only issue in which I see a potential for improvement is the dynamics in discussions. Some time consuming interplays [...] were unnecessarily long. I do not know exactly how to avoid that – the only thing that comes to my mind is a larger degree of control during discussions from the side of the instructor.”

Clearly, what was appreciated by Jana, namely to share views and to discuss options, seemed like a waste of time for Peter, who wanted to get “to the core” faster and have the facilitator control issues. Interestingly, although these different viewpoints were not explicitly discussed in class in the next unit, apparently something changed in the next block: all participants (students as well as the facilitator) watched out for discussions becoming too unwieldy and cooperated towards a better balanced amount of discussion and topical work. This was perceived (not only) by Peter who had shared the critical remark on the dynamics of discussions after the first block. He wrote:

“In my first evaluation I mentioned that some progress still would be achievable in upcoming discussions in which the whole group participates. In the second meeting I have not observed any insufficiencies any more and for myself I must say that I highly enjoyed all group discussions. And even this concerns my role of ‘just’ a listener as well as that of an active participant.”

This example shall also illustrate the power of mixing or blending face-to-face and written online expression. By (writing and) reading the reactions in a peaceful moment between the course blocks, students had time to think about and feel how course elements and others’ perceptions resonated with them such that they could let their own

\(^1\) The names have been changed in this text.
thoughts and reactions emerge and ripen for some time. Furthermore, working towards creative solutions at course level is likely to inspire students to work more creatively at the team and individual level.

**Active Learning**

Since we were interested to find out from which aspects of the course students benefited most, an online questionnaire with 23 features was put online (compare Figure 2) and students were asked to indicate to what degree they benefited from each of the aspects. In the beginning of the course they were asked to consider a typical course of their studies, whereas at the end of the course they estimated their perceptions for the particular course on communication and soft skills. The scales ranged from 1 meaning “not at all” to 5 standing for “very much”.

Interestingly, students felt they learned most from their active engagement: This encompassed practical exercises, whereby all of them (except for an initial exercise on active listening and one on team work) were suggested by the student teams in a self-initiated manner. Active participation equally encompassed other forms of activities, in particular sharing and discussion among students as well as between students and the facilitator that were estimated as contributing highly to students’ learning. The majority of students also indicated that they benefited much from “considering situations from different perspectives”. The high rating in this aspect also points to the assumption that student may have grown with respect to openness to other’s views and respect towards others. Although this tendency is more implicit when considering the survey only, the written reaction sheets appear to point in the same direction and thus support this hypothesis. Finally, the survey can be seen as illustrating the potential of person centered academic courses to meet, to a perceivable degree, learning goals that concern interpersonal skills and attitudes and thus address inclusion on all three levels of learning.

![Figure 2: Masaryk University of Brno students’ ratings on profitable aspects in Communication and Soft Skills when compared with other courses in their studies. Scales from 1 … ‘not at all’ to 5 … ‘very much’; n = 14 (from N = 19 participants).](image)
Including Student Teams in Designing and Organizing Course Units

In a lab course (with a max. of 20 students) on “business processes and organizational development” the initial units are conducted as interactive workshops (Motschnig, Kabicher, Figl & Santos, 2007). They serve to mediate team building among students based on their themes of interest derived from the course’s subject matter. Students are offered to contribute in a way in which they conduct course units after consultation with the instructor. Topics are presented in the style of student-led interactive workshops and further elaborated in project documents that are evaluated by peers and the instructor.

The content analysis of students’ reaction sheets of the course on business processes and organizational development held at the University of Vienna in summer term 2007 illustrates, that students mainly reflected about the attitude of the group (19%), course content (14%), discussions (13%), course arrangements (12%), attitudes and competences of the facilitator(s) (11%), team project arrangements (10%), course language (9%), learning and teaching style (8%), as well as exercises and working in small groups (4%). A total of 173 statements were categorized into the above mentioned categories. 75% of the overall statements were rated as positive, 13% as negative and 12% as neutral. In fact, all nine categories mentioned were related to students’ inclusion and thus include respective statements. For example, students appreciate the chosen project topics of the teams and the team moderations where they experience and practice various moderation elements (e.g. working in small groups, tests, games, and discussions). Some students’ reactions participating in the course on organizational development were:

“The topics discussed in class were interesting and I think every team did quite a good job. Each team tried to involve the class in its presentation and thus the presentations became more interesting”.

A more critical student reflected:

“If we make a feedback or discussion turn, in my view it's not necessary to get a comment from all present students! It took too much time and [...] the concentration decreased”.

Another student wrote:

“I think that [the teams] did [a] good job in [making] this course enjoyable through interesting topics [and moderation elements like] working in groups, tests...etc. I also [want to say] that I enjoyed more the discussions during the presentations [...] than the presentations themselves. Normally, groups present something [and] all other listen and maybe one or in [the] best case two questions are being asked (in really bad examples, they are even asked by [the] teacher, and all other [participants] are just waiting to get their shot, and sit out the rest of the course) and that's it.... Discussions on the presentation topic? Not in this world. That's why I enjoyed this week and [the] course as whole”. “The teams themselves worked well - we all learned from each other”.

As part of the students’ self evaluation we asked students to estimate the degree to which they contributed to the course and to which they benefited from the course, as shown in Table 1. The relatively high values on both dimensions indicate the high share of benefiting through contributing to the course. This result would not be possible without intensive student inclusion in all aspects of learning.

<table>
<thead>
<tr>
<th></th>
<th>Avg. rating</th>
<th>Min. rating</th>
<th>Max. rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>I contributed to the course.</td>
<td>9.85</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>I benefited from the course.</td>
<td>10.08</td>
<td>8</td>
<td>11</td>
</tr>
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Use of Blogs

Blogging has become one the most popular means of communication on the Web today (Blood, 2004; Wong, Vrijmoed & Wong, 2008). Easy-to-use tools are freely available, and they offer manifold features for expression and
personalization such as posting multimedia text entries, commenting other blogs, maintaining a personal list of favorite blogs (“blogroll”), and many more. Essentially, blogging epitomizes the idea of inclusion in the virtual world: everyone has a voice within the virtual community and is only a few mouse clicks away from participation. The uptake of blogs in educational contexts has grown steadily over recent years; student blogs are used to support learning diaries, reflecting, submitting contributions, publishing reactions and feedback, peer reviewing, and for creating virtual learner communities, to name a few (cf. Derndl, 2009).

In our context and educational approach we employ blogs primarily to give students a medium for freeform communication and sharing with peers; reflecting on their learning experiences; documenting their efforts; “contacting” the instructor; and for conveying anything else that might be relevant to them. When properly facilitated, blogging offers a barrier-free and immediate means of conveying attitudes, feelings, and meanings (cf. Rogers’ proposition V) particularly in web-based and distant phases of a blended learning process. In a questionnaire ($N=30$) on the use of blogs we distributed at the end of a course on software architectures and web technologies this year, we found that students particularly appreciated that blogging increases interaction among peers and with the facilitator and decreases the personal distance between students and facilitator. Note that students’ general appreciation of the use of blogs in the course correlated significantly with their perceiving the instructor as being acceptant ($r = .39, p < .05$) and empathic ($r = .40, p < .05$). From the facilitator’s point of view, using student blogs offered valuable insights on issues that would otherwise remain hidden, for instance, problems students had with their tasks (e.g. misunderstanding the assignment) and peers (e.g. teamwork issues). Those problems can be tackled and discussed later in subsequent face-to-face meetings, or immediately via blog comments. Also, blogs offer insight into the process of creating solutions; often, the products created by students are technically flawed, but the learning processes documented in the blogs help to explain the reasons for those flaws. Blogs are also successful in helping students to get to know each other personally, since many of the blog posts include personal remarks and meanings. Additionally, blogging offers students easy, asynchronous access to their instructor as a “resource”, e.g. by posting comments to their instructor’s blog or by raising issues in their own post. However, these potentials can be unleashed only if (a) the use of blogs is being clearly motivated by the facilitator and (b) the content and meanings conveyed in the blogs are taken into consideration in subsequent interactions.

The drawback of introducing and facilitating blogging in courses is that it will require a significant amount of extra time and dedication by the facilitator.

**Conclusions and Further Work**

In this paper we elaborated a psychological grounding for student inclusion, addressed the role of facilitators as well as technology enhanced learning designs, and shared experiences and research results from academic courses in which students participated intensively. From a theoretical-experiential perspective, our educational endeavors build on the principles of humanistic education as realized in person centered learning. In a nutshell, the cost of student inclusion is primarily in time (required for interaction) and thoughtful process-design of courses. For students, a person-centered learning style with an emphasis on inclusion often requires a re-orientation. As a student put it very vividly: “The most important thing I took home from this course is to take nothing as given. There is always a way to have influence on certain things. I think this course opened my mind for other learning experiences than the traditional lectures. It was a hard and irritation experience in the first units, but I think I adapted to the situation and finally I felt kind of comfortable. I really think this course had a major influence on how I will handle learning situations in the future.” The benefits lie in gaining flexibility, communication competence, interpersonal competence and a better capacity to deal with new situations – not only for students but also for staff. Further research and practice should address the “training”, better development, of staff as facilitators for active learning and building/cultivating learning communities. In addition, the potentials of including innovative technology, such as novel Web 2.0 services into education need to be investigated.

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References


