

U-Zone : A student development environment

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INTRODUCTION

The cooperation between Umeå Municipality and the Design Research Group at the Umeå Institute of Design (UID) has given form to one main project, one degree project and four group projects developed by the Interaction Design first year at the UID. The whole duration of the latter was of 10 weeks and it was divided basically in two parts: Ethnographic studies, when we would learn by doing about the range of different research methods used by practitioners of the discipline; and Participatory Design, when after defining clear innovation paths we would also learn by doing about the techniques involved in the practice of it.

A BRIEF BACKGROUND TO THE SYSTEM OF EVALUATION IN SWEDISH PUBLIC SCHOOLS

The current system of evaluation permits the students of Swedish public schools to set their own 'goals' at the beginning of the term. This takes place through a meeting with the 'mentor'¹ of the student. The 'goals' are however purely academic and are set simply in the form of 'grades' that a student wishes to achieve. These grades are also pretty broad in definition. IG stands for 'not passed', G for 'just passed', 'VG' for 'passed very well' and 'MVG' for 'passed exceptionally well'. After a student decides what he or she would like to achieve in every individual subject, and discuss with the mentor what courses they need to study to go about it, they have no access to the goals during most of the semester. Less engaged students thus get lost in a sea of activities and tests, and forget what they really set out to achieve. 3 months after the setting of the goal, they receive a formal document from the teacher, describing what their grades are so far, how far they are from achieving their goal, and a study plan to reach the goal by the end of the term. This paper, called the *Omdöme* or 'Judgment' which is the 'progress-report' of sorts, is also to be shared and signed by the parents of the students, if they choose to do so. The parents are then invited to a parent teacher student meeting to discuss the progress of the student. This meeting is called the *Utvecklingssamtal* or the 'evaluation-meeting'.

¹ The mentor of a student is a teacher who is solely responsible for that student's individual development.

ETHNOGRAPHIC RESEARCH

An interview with a mentor of 8th grade students gave us a brief insight of how the Swedish evaluation system works. It also led us to believe that there is great lack of motivation in students to want to attend class. It also gave us the idea of the great difference between expectations of students from themselves as compared to expectations from their parents.

An interview with a mother language teacher gave us an insight of the difficulty for immigrant parents in adjusting to Swedish evaluation system, and the rift that exists between immigrant and their children, who end up with huge identity crises. These two interviews led us to believe that there was possibly a need for improving communication levels between parents, teachers and students.

A workshop called Communication Workshop conducted by the designers for 9th grade students, with the intention of finding out the various levels, media and content of communication with their families, friends and teachers, gave the designers a turning point in their project. The designers were amazed at the various motivation levels of different students, and the different levels of engagement, they had with their work, while the workshop was being conducted. The designers began to question the evaluation system, and came up with the following hypotheses:

1 the current evaluation system does not support the individual development of the student, since it is comparative and not self referential.

2 below-average students are driven by chance and above-average students are driven by challenge.

Another workshop called the Chance and Challenge workshop conducted with the intention of delving deeper into the evaluation system gave us further insights and led us to conclusions that formed the bases of our design direction.

1 The students knew little about their evaluation system

2 Students were motivated when they were setting their goals, but as the semester progresses, they had no access to their set goals or study plan. Hence their motivation levels would drop as the semester would progress

3 Students barely participated during the Utvecklingssamtal

4 All students described the environment of the Utvecklingssamtal as a boring and ordinary classroom

A Final interview conducted with an above average student of 9th grade confirmed our various insights, hypothesis and conclusions. The students lacked motivation and motivation levels would drop as the semester would go by. The process of setting goals was boring and non-engaging. The students had no desire to even remotely participate at the Utvecklingssamtal.

STUDENT MOTIVATION LEVELS ARE DIRECTLY RELATED TO THE SYSTEM OF EVALUATION

Ethnographic research by our design team has led to the conclusion that the current ritual of evaluation and the current environment of the Utvecklingssamtal do not support individual student progress. Evaluating students is based on a system of grading that is currently more comparative and less individual. Hence the progress of a student is presently measured by a standard, where it should ideally be self-referential. Apart from this, students find it very hard to access the 'goals' that they set in the beginning of each school term. This is primarily because the goals that they set are stored away by faculty in the form of a formal written document which the student has no access to and no interaction with. Poor accessibility and lack of means of progress-tracking, combined with a less exciting method of visualizing goals and progress, leads to motivation levels of students to drop, as the term progresses. By the time the students reach the ninth grade, they feel caught in the same boring rut of school work, making their ambitions more driven by the desire to earn rather than the desire to learn.

OPPORTUNITIES FOR DESIGN

The ritual and the environment of the Utvecklingssamtal currently place the student in the most non-participative position. The parent-teacher-student meeting currently takes place as a matter of routine once every term, in an ordinary classroom. The parent and the teacher usually talk about the student's grades, with very little or no participation from the student, and very little emphasis on student social development. The current ritual of Evaluation and Utvecklingssamtal can be described abstractly as follows:

Before Utvecklingssamtal

1. student sets goals
2. mentor stores goals in the form of a formal typed document
3. student has no access to goals and grades for 3 months
4. student receives the Omdöme, which reminds the student of her goals, tells the student what she has achieved and provides a study plan to reach the desired goal
5. The student is given a letter from her mentor to invite her parents for the Utvecklingssamtal

During the Utvecklingssamtal

1. The parents, the mentor and the student sit in a classroom around a table.
2. The teacher opens a big binder containing everyone's Omdöme and fishes out the one belonging to the student.
3. If the student has not been engaged with her progress, she is completely in suspense of what the mentor might have to say about her.
4. The mentor then reads out the grades that the student has achieved and the comments from various other subject teachers about her.
5. The student is usually quiet during this time, while the parents and the mentor discuss his progress.

It struck us as quite odd that the student "self-evaluation" is not quite a system of self evaluation. In the end it is still the parents and the mentor who discuss the student. The current ritual of the Utvecklingssamtal definitely leaves no room for participation from the student, for his own evaluation. Could this be a possible reason for the lack of motivation in students?

It has already been mentioned that something as important as student individual progress is measured only with a system of grades. We realized that, this factor, combined with the student's inability to access his goals and track his grades through the term contributes to poor results, less engagement in his/her personal progress and complete lack of motivation from both 'good' and 'bad' students. Finally, all of this building up to the current ritual of the Utvecklingssamtal, and the current physical environment where it takes place, leads to complete lack of engagement from the student during this very important event in the semester.

The Omdöme is the only connection that the student has with her goals, which is provided to her only once every term. And the 'Utvecklingssamtal' is the only moment when the parent, teacher and student are all present together to discuss the student's progress. Herein lay the opportunity for design: to redesign the ritual of evaluation into one which calls for more participation from the student for her Omdöme and to design an environment that could support it.

INNOVATION PATHS

An in-depth analysis of the roles of the various participants during the current ritual of student evaluation gave us clear insights of what the new ritual should be.

At present:

1| The students' only role during the ritual of her evaluation is setting a goal, taking tests and then being a carrier of her own goals and grades from the teacher

to the parent in the form of a 'formal document' This can be changed by giving the student greater control during his own evaluation. A system where the student can continuously interact with his progress? The formal document could be replaced with a more accessible, visual, tangible and interactive system?

2] The ritual of the teacher creating the Omdöme for each student, is the only reminder for the student of the goals that she had set This part of the ritual can be redesigned by training the student to be more responsible for creating his own Omdöme and the teacher only playing a part in checking it. This implies that a tool or system is required for the student to be continuously in touch with this grades and goals. This could be part of the physical environment.

3] The current ritual of the Utvecklingssamtal requires the teacher to initiate a discussion about the student progress. The ritual of the Utvecklingssamtal could be redesigned in a way that the Utvecklingssamtal environment automatically provides tools for the student to self-evaluate.

4]The current ritual of the Utvecklingssamtal does not provide visual means of discussing the social development of the student. Could the Utvecklingssamtal environment provide tools to document and display student work during the Meeting?

THE U-ZONE RITUAL

A Ritual is composed of symbolic expressions, a structured sequence of actions, and a desired outcome towards which it is performed. A ritual can be a subconscious way of life or an activity performed with the intention of having far reaching consequences into our lives. A Ritual is also defined by a place or space, whether this is formed by the space contained between human beings during this ritual, or the space containing human beings. Our research points towards the current ritual of the Utvecklingssamtal and the events leading up to it, being the possible cause of lack of motivation in middle school students. This in turn leads to a lack of engagement on the student's part with her self-development. The project proposes to solve this problem by redesigning the ritual of the Utvecklingssamtal into one which is a more self-evaluating and engaging process. **U-Zone** is an environment which supports this process. **U-Zone** is a space in the school where students constantly interact with their evaluation and goals. It is a place where the student can constantly see her development, not just in terms of grades and goals, but in terms of her social development as well. **U-Zone** is not about what the teacher thinks the student is, but how the student sees herself. It is positive, forward looking and engaging. It hopes to have constructive influences on a student's life in the longer run.

PARTICIPATORY DESIGN

A participatory design session conducted with 4 students from Ersångskolan provided us with strong directions with regard to what the redesigned ritual of the

Utvecklingssamtal should be, and qualities that the physical environment of the Utvecklingssamtal should provide the students with. The session was conducted as follows:

1. 4 students took part: one from 7th grade, 3 from 9th grade
2. The current layout of the evaluation sequence was written on the board in 3 columns:
 - a. Column 1: setting goals
 - b. Column 2: Omdöme
 - c. Column 3: Utvecklingssamta
3. 4 rows to each column of the evaluation sequence were added as **Tools, Environment, Actions and Emotions**
4. the students were given 2 minutes to write down words for the **Tools, Environment, Actions and Emotions** that they felt were associated with each segment of the evaluation sequence
5. a discussion followed thereafter where the students had to put a "+ve" or a "-ve" tag to each word that they had put down. For example "the binder" under "tools" during the "Utvecklingssamtal" was tagged as -ve.
6. a final discussion followed, where the students were asked to replace each -ve word with a +ve word and methods to achieve that.

Quotes from the discussion

"The environment is boring and claustrophobic. If we could see more of the outside, it would be nice"

"I don't say a word during the Utvecklingssamtal. It's mostly the teacher and parent who talk. I just want it to get over. It would be nice if I could feel like talking"

"It would be useful to have something like a USB in which we can take pictures and store all our work and upload it to a server. That way we can keep track of all our work"

"I would like to have a big board which tells me what my goals are all the time, to remind me about what I should do to achieve them"

VISUALIZING THE DESIGN DIRECTIONS

Detailed description of the redesigned ritual and the U-Zone.

The redesigned ritual must be able to achieve the following:

1. Constant access by the student to his goals and progress
2. Greater participation from the students' side in her evaluation
3. Emphasis on student social development

4. Training the student to be engaged in documenting his progress

The redesigned evaluation ritual

Before the Utvecklingssamtal

1. At the end of every week a 30 minute “Documenting Class” is mandatory in which the student uploads images of her work to the U-Zone
2. A day before the Utvecklingssamtal the student is given preparatory time to upload her self evaluation to the GUI in the U-Zone , to place physical work to display and organize digital and analogous work in the U-Zone. This process of “organization” and “reflection” is aimed to train the student to self-evaluate from an early age

During the Utvecklingssamtal

- 1| Prelude to Development Talk: Parent, student and mentor reflect on the student’s achievement through semi-digital floor and semi-digital semi-analogous-wall
- 2| Student in Control: Student explains self-evaluation to the mentor and parent using the semi-tactile interactive GUI and the images on the exhibition wall. In case of any disagreement the student or the mentor uses the GUI to provide proof of courses completed. This negotiation ends in an agreement about the goal he or she has achieved.
- 3| Finale to the Development Talk: Parent receives a print of the final negotiated evaluation talk and a contact sheet of student work images

The Designed Environment: U-Zone: Tools required for automating the redesigned ritual

The physical space intends to contain the following tools to facilitate the redesigned ritual

1. **A semi-digital floor** with images of student work that he has chosen to upload for the Utvecklingssamtal. These images would flicker on when the student steps into the space with the mentor and parents, and provide grounds for a prelude to discussing student progress, like a “welcome note”.
2. **A semi-digital semi-analogous exhibition board** containing a structure for students to display physical work if they choose to and a set of screens to display digital images of work when student grade evaluation is being discussed
3. **An interactive semi tactile, semi digital GUI to record student goals**, courses completed, student self evaluation and teacher evaluation. This GUI is visual, graphic and engaging. Any student would be able to access this GUI in the environment, both

physically and via mobile devices or the internet, to track his progress, access his goals, and personalize it with images of interest or video.

The environment will be personalized to every student, as it will remain neutral until the student logs into the space, wherein it will display images of his work on the exhibition wall and his goals and self evaluation on the evaluation GUI. The environment aims to be both digital and analogous, to provide greater flexibility on the student’s part to express him or herself in this space. With the above directions in mind, the designers also hope to achieve greater ease and expressivity when it comes to communicating the ethos of a particular student, during the Utvecklingssamtal, by both the teacher and the student to his or her parents.

CONCLUSIONS

From the above conclusions, the priority of the designers, pointed towards creating a more personalized and engaging system of evaluation, where the student has continuous and complete access to the goals that he had set for himself in the beginning of the term. The designers aim is to use the idea of the ‘ritual’ and the ‘environment’, to translate the concept of the Omdöme, into a more permanent, engaging and accessible system, for example a physical space or element, rather than being a report that the student gets once a term.

The central theme of the design direction is thus:

1. to re-design the ritual of the Utvecklingssamtal, and;
2. to design the environment or ‘physical setting’ to facilitate the catalyzing of this ritual.

The redesigned ritual of Evaluation aims to provide the student with a chance for maximum participation during the Utvecklingssamtal. The redesigned ritual also aims to place greater emphasis on the students’ social development, over and above the grades. This is hoped to be achieved by designing the environment in a way that it acts as a catalyst in facilitating this ritual. The designers’ aim is to make this physical environment a platform for recording every student’s goals and progress, for discussion of these goals and his social development, like **a permanent living Omdöme**.

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