

Jörgen Dimenäs  
Hans Johansson

Colleagues,

the text below expresses our starting-points for definitions, overall view of Swedish discussion about individualised learning in mixed ability groups, objectives, questions to be answered, analytical units and standardised criteria for observation and interviews.

## **Definitions**

### *Individualised education*

Education which is adapted to different pupils.

### *Learning*

Learning in this research project's perspective will be understood as the pupils experiencing various phenomena and being capable of discerning certain entities or aspects and of being capable to be simultaneously aware of these certain entities or aspects.<sup>1</sup>

### *Teaching*

Teachers' ability to use teaching strategies, methods, interaction in group and to organise activities for optimal learning possibilities in relation to theories of learning and awareness of classroom activity, social aspects and topic aspects.<sup>2</sup>

### *Ability*

Pupils' understanding of different phenomena.

### *Group*

Groups of pupils more or less dependent on each other in a meaningful interaction

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<sup>1</sup> Marton, 1996, p, 179.

<sup>2</sup> Alexandersson, 1994, p. x and Sträng & Dimenäs, 2000, p. x

## Individualised learning in mixed ability groups in Sweden

What we mean by individualised learning is that education will be adapted to different pupils in different situations. Historically, this was a new way of understanding education. In most Swedish schools until at least 1960, most teachers saw the class as homogeneous group of pupils. The pupils who did not understand the teaching could take another year or was forced to leave school.

In the new school system, from 1960 and forward, the education was directed to heterogeneous groups. In the beginning, psychological research perspectives on pupils' learning was adopted and focused. Later, researchers also found that not only pupils' learning was important to understand individualised learning. There were other essential factors of understanding education in heterogeneous groups, as individual differences between the pupils, the quantity of "facts" and available time.<sup>3</sup> Recently an interest in pupils understanding of content or different phenomena, has been a complimentary focus, which also can explain and motivate individualised learning. This points out that the same teaching will result in pupils different understanding of a phenomena and the researchers underline the importance of taking account the content in individualised education. An example is to understand and learn how to prove the area of a rectangle. Some pupils know that  $b * h$  gives the area, but in the same group you as a teacher first have to confront the pupil with the question how many square centimetres you in a concrete way must have to fill up the rectangle. It is another perspective and the pupils in same class may have different conceptions. The pupil who could see the task from several perspectives has a greater possibility to move faster than another pupil who only has one way to understand the problem. This will challenge the professional teacher to arrange education so that both pupils with their different perspectives can study in the same class room. In science teaching, there is a large amount of research results, which presents pupils' different conceptions, sometimes even named "misconceptions", when conceptions is compared with the more scientific way of understanding phenomena in the world. <sup>4</sup> Ausubel says that "if I had to reduce all of educational psychology to just one principle, I would say this: The most important single factor influencing learning is what the learner already knows. Ascertain this and teach him accordingly."<sup>5</sup>

Another perspective of mixed ability groups underlines the importance of integration or including different pupils in school, pupils with different social and ethnical background and even pupils who are handicapped<sup>6</sup> in different ways. There is an intention to see them more as a resource in education instead of seeing them as an obstruction.<sup>7</sup>

More or less, this concludes the mainstream of discussions about individualised learning in Sweden nowadays. The reality in classrooms may be understood and seen in different ways.

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<sup>3</sup> Lundgren, 1972, p. 331-339 and Dahllöf, 1999, p. 5-14.

<sup>4</sup> Andersson Driver, Marton

<sup>5</sup> Ausubel, 1968, p. vii.

<sup>6</sup> This means both physiological and mental aspects.

<sup>7</sup> Emanuelsson, 19xx, p 9-22, Rosenqvist, 19xx, p 24-29, 35-36 and Rabe, 19xx, p. 38-44.

## **Objectives**

The objectives derived from this analysis are essentially attached to the target group of teachers and headmasters in schools, student teachers, as well as their trainers at universities, seminaries and institutes for in-service training. Based on up-to-date scientific investigations on learning and teaching this research project's purpose is to

- get to know and to share best practice in the partner countries by systematic scientifically based observations of classroom teaching and interviews with teachers, pupils, and parents,
- compare and reflect upon the results and to evaluate them taking into account the specific situation in each country,
- especially find out and describe the factors, which influence individualised learning in mixed ability groups positively or negatively,
- evaluate the effect of individualised learning on the acquisition of curricular and social competences.

## **Questions to be answered**

What kind of school culture supports individualised learning best?

Is there a repercussion of results of performance tests on classroom teaching?

What kind of self-concept dominates the interaction between school authorities-teachers-parents and students?

## **Analytical units**

To understand individualised learning in mixed ability groups, we have used the qualitative research tradition, with its broad possibilities during the research process to raise questions, and analyse and collect data through observations and interviews. For the aim of describing and understanding this process, we have used the different analytical units below.

## Analytical units

### Focus

Interaction	Content
	Social competences Curricular competences Concealed topics



Group of pupils

### Method

Observation	
In what way does the interaction take place?	What content is discussed? How does the pupil describe that she has learned?
Interview	
In what way have other members of the group contributed to what she has done? What kind of problems does she find meaningful?	What kind of knowledge was she looking for?

## Standardised criteria for observation and interviews

The starting-point for the observations has been to be as close as possible to the genuine classroom situations. Hammersley and Atkinson<sup>8</sup> discuss this as follows

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<sup>8</sup> Hammersley & Atkinson, 1990, p. 9.

In short then, naturalism present ethnography as the pre-eminent if not exclusive social research method. This is because any account of human behaviour requires that we understand the social meanings that inform it. People interpret stimuli in terms of such meanings, they do not respond merely to the physical environment. Such understanding requires that we learn the culture of those we are studying. This cannot be done following standardized procedures; it is a natural process analogous to the experience of any stranger learning the culture of a group. The behaviour can only be understood in context. For this reason natural settings must be investigated: we cannot understand the social world by studying artificial simulations of it in experiments or interviews. To restrict the investigation of social behaviour to such settings is to discover only how people behave in experimental and interview situations (p. 9)

The interviews were prepared by some important questions in an interview guide where “the interviewer remains free to build a conversation within a particular subject area, to word questions spontaneously, and to establish a conversation style – but with the focus on a particular subject that has been predetermined”.<sup>9</sup> The researchers relate to interview situations comparable to a professional conversation, which purpose later in the analyse phase is to make it possible to do a description of the conceptions of the person interviewed. The data received should not be understood either subjective or objective, but it should be understood as intersubjective.<sup>10</sup>

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<sup>9</sup> Patton, 1987, p, 200.

<sup>10</sup> Kvale, 1999, p, 58, 64 and p. 74.

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