GÖTEBORG STUDIES
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To my parents and brother,
Vaios, Vasiliki and Theonas,
for their motivation and support

ABSTRACT

Title: Adolescents' perceptions of school and reasons for learning

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The first purpose of this thesis is to study how 13-year old pupils in Sweden perceive school and education and what kind of own reasons (i.e. motives and goals) they have for going to school. The aim is, in particular, to examine, whether there exist general categories of motives and goals and thus different types of pupil motivation for going to school. The second purpose is to study how general categories of motives and goals relate to achievement over time. The thesis aims in addition to problematize different perspectives on pupil motivation and achievement and to discuss complementary perspectives and changes in the methods used. The first purpose has been investigated by the use of an open-ended question: "Why do all children in Sweden go to school?" while the second one has been investigated by a standardized achievement test in mathematics from grade 6 and grades in fourteen school subjects from grade 8 in the Swedish compulsory school. The nationally representative data was collected in 1995 within the Swedish longitudinal project "Evaluation Through Follow Up" and Statistics Sweden.

The content analysis of the responses to the open-ended question (n=7391 or 97%) suggests that pupils hold different types of motivation towards school and education. Two of them concern going to school in order to fulfil own short- or long-term motives and goals such as learning, improvement, self-development and making choices with respect to one's life as adult. Two other types of motivation concern going to school in order to fulfil the demands or expectations set by others (e.g. the state, parents and the labour market), or the demands set by oneself in order to prevent different feared-for-situations in the future such as unemployment and social failure. Some groups of pupils are found to integrate various internal and external sources of motivation with respect to going to school and try to pursue a mixture of motives and goals simultaneously (e.g. learning and performance goals). Others are critical towards school and education and argue that school is meaningless to their life in a here-and-now as well as in a long-term perspective.

The different types of motivation that pupils hold towards school and education are found to relate differentially to achievement in grade 6 and 8 and to gender. The most successful pupils both in grade 6 and 8 are those who try to fulfil the demands and expectations set by others and who also try to prevent own feared-for situations with respect to the future to become reality. The next most successful pupils are those who try to fulfil externally and internally motivated reasons for going to school simultaneously (e.g. performance and learning goals). These motivation groups are found to comprise more girls than boys. Moreover, pupils with future orientations show higher achievements in school in general than pupils who are here-and-now focused. The type of motivation that shows the biggest conceptual similarities with intrinsic motivation and mastery goal orientation (i.e. pupils who quest for self-determination, mastery and improvement in a here-and-now perspective) is negatively related to achievement in grade 6 and 8. Pupils with this orientation demonstrate the lowest achievement over time together with pupils demonstrating a critical, or rejecting attitude towards school and education. These motivation groups are found to comprise more boys than girls.

These results suggest that there is a need for developing comprehensive theoretical frameworks and to study pupil motivation as a multi-dimensional construct situated in a here-and-now as well as in a future perspective.

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Mölndal in March 2001

Joanna Giota

CONTENT

CHAPTER 1

INTRODUCTION

The official aims of the education system are to develop pupils' academic and social knowledge and skills (Good & Brophy, 1986; Wentzel, 1989), their emotions and well-being (i.e. their total personality) (Sylva, 1994). The aims of school and education may, thus, be perceived as the two sides of a coin: one side concerning the communication of knowledge, academic skills and competencies and the other the communication of externally set societal norms, values, beliefs and attitudes, which will enable pupils to interact with other people and members of a certain society in a here-and-now perspective and to function as adult members of this society in the future. This means that the different kinds of knowledge, skills and competencies that are taught in school are not only to be practised in school in a here-and-now perspective, but are also to shape a more distant future, including future education or training, professional life, partnership and family life (Nurmi, 1989; Malmberg, 1998).

The purpose of the present investigation is to study how 13-year old pupils perceive school and education in Sweden and what kind of own reasons (i.e. motives and goals and thus motivation) they have for going to school.

Research on motivation suggests that personally relevant goals play an important role in the ways pupils direct their own development across the life span. According to this research, pupils choose environments and engage in activities that they expect to promote their present and future development (Lerner & Busch-Rossnagel, 1981; Hurrelmann, 1988). Seen from this perspective, although school is compulsory for all children until a certain age, pupils go to school and engage in the tasks and activities that take place there in order to fulfil personal motives and goals like learning and personal growth. This doesn't mean that pupils are free to influence their own development in exactly the way they want to, however.

The goals that pupils try to pursue in school, as well as outside school, may be opposed to the goals of other pupils, as well as to the goals of adults (e.g. the goals of teachers and parents), the goals of the social group of which they are members, or contradictory to the goals of the self (Oppenheimer, 1991a, 1991b). Consequently, children are required to compromise, co-ordinate or limit their own goals with what is possible in the specific environments in which they are acting, whether this is the school setting (Wentzel, 1989), the family (e.g. Maccoby & Martin, 1983) or the peer group (Hartup, 1983). The kind of goals pupils set up in the present are, in addition, expected to be limited by structural and cultural constraints at the macro level (Buchmann, 1989; Hurrelmann, 1993) which affect the decisions and choices children have to make over own future goals (e.g. further education and vocational orientation) and their actions to reach these goals.

Coming to terms with each and every pupil's inner world and own good reasons to go to school and engage in school activities as a teacher, with own roles and duties to carry out in school, is an extremely demanding task. In my opinion, knowledge and insight into the pupils' inner worlds and their external relations is though the most important ground upon which we can build meaningful learning environments for the pupils. That is, environments that show respect for the pupils' perceptions of today's school and the world outside school as well as the needs, interests and goals that they are trying to fulfil by going to school and their potentials and capacities to learn. All these aspects are of importance for the total development of the pupil and his ability to meet social demands.

If we look at contemporary research on pupil motivation and the different motives and goals, which are assumed to lie behind pupil behaviour, we will discover that motives and goals are defined and researched primarily from the perspectives of intrinsic or extrinsic motivation and mastery or performance goal orientation. Critical voices within the field of pupil motivation claim, however, that these perspectives are too narrow and that they fail to adequately describe the variety and complexity of concerns that motivate pupil behaviour (Wentzel, 1989; see also Niemivirta, 1998b).

Another purpose of the present investigation is, therefore, to problematize different perspectives on pupil motivation and the limitations which are built into both their and my own way of studying pupils' inner worlds. This is important because limited knowledge and insight into the theories and methods we use in our attempts to study different processes may lead us to believe that we have

found weaknesses in the pupils while we in fact have not found the weaknesses in our own ways of studying things. However, through reflection and insight into the problems that characterise research on pupil motivation, we can begin to discuss both theoretical changes, complementary perspectives and changes in the methods we use in the study of children.

BACKGROUND

In the present investigation, pupils' motivation for going to school has been assessed with an open-ended question, which requested pupils to give their own reasons as to "Why do all children in Sweden go to school?" (Write your own reasons). My theoretical and methodological considerations for using this method will be outlined in the theoretical sections.

Here I want to note that my interest in this field of research was established during my work with the evaluation of English in grade 5 within the National Evaluation Program in 1989 (Balke, 1990a, 1990b, 1991a, 1991b; for the assessments of pupils at higher levels in the school system see e.g. Oscarson, 1995). Within the framework of this program pupils were required to give their own reasons for learning English in school by responding to the question: "Why do all children in Swedish schools learn English as a foreign language?"

A content analysis of the pupils' responses to this open-ended question revealed three major categories of reasons for learning English in school (Giota, 1995). Two of these categories were characterised as qualitatively different from each other, involving "Integrational" motives and "Instrumental" motives. Labelling these reasons as "integrational" and "instrumental" corresponds to Gardner and Lambert's (1972) findings, which show that integrative motivation corresponds to pupils' personal interest to know and master a new language and to communicate with native speakers and their culture, while instrumental motivation corresponds with a career orientation and the way languages can be used as a means to attain a particular career.

In this study there was a third pupil group who did not offer any clear reasons as to why children learn English in Swedish school. According to this pupil group English is taught in Swedish schools because a higher authority has decided that, but they could not see any personal meaning as to why they should acquire any knowledge in this subject.

Pupils identified as indicating one or other of these categories of reasons were then compared with regard to their perceived ability to accomplish different tasks in English, motivation and attitudes towards learning English in school, use of English outside of school, and their actual knowledge and skills in the English language. The results showed a picture of significant differences for most of the studied variables and in particular between the first two groups (i.e. the integrational and instrumental, or communicatively- and career-oriented groups) and the third group. The third pupil group demonstrated negative responses to almost every one of the studied variables as compared to the other two pupil groups.

In this study, I suggested that one of the reasons for the latter pupils' generally negative attitude towards learning English in school and their lower self-evaluations with respect to speaking, writing or reading English in school might be traced to their perceptions of their achievement in English (see Skehan, 1989). This is because this pupil group had shown tendencies toward achieving consistently less well than the other two pupil groups on all of the eight achievement tests included in this evaluation and could, therefore, be considered as "a weak pupil group" (for a definition, see Balke, 1990b; Hansen, 1990). Although this pupil group was "weak" in terms of knowledge, however, their achievement was not so low in relation to the other two pupil groups. Therefore, in this study it was suggested that this pupil group does not necessarily distinguish itself because of a lower than average achievement on the tests, but also because of the type of motivation towards learning English in school that these pupils indicated.

By looking at the relationship between different kinds of motivation and achievement in school in a superficial way one may be led to explain these pupils' lower achievements in English with statements such as they were unmotivated towards school or lacked interest or ability in learning English. That is, to try to find weaknesses in the pupils (see causal and noncausal explanations, Hollis, 1977). The explanation may be, however, that this pupil group was unwilling to accept the content of this subject and the way it was taught in school by teachers or were unwilling to conform to the social as well as the intellectual requirements of the classroom, in general. By achieving less well in this subject (but not that much less well than other pupils), and maybe in other school subjects, these pupils may want to tell us that school is not relevant to their own needs, interests, goals and competencies to learn. That is, their motivation to acquire knowledge in school that is meaningful for their own lives and development. Such an

unwillingness may, thus, be a strategy of protecting the self from what White has termed as "social enslavement" and "alienation" (1979, p. 20; see also Willis, 1977). From this perspective, these pupils' failure to achieve in school is not a question of lack of motivation or ability but of social disobedience.

This kind of explanation requires, however, that one takes into consideration the complexity in the pupils' inner worlds and how different inner processes such as needs, interests, goals and abilities are related to or influence each other, and then how these processes are related to outer processes, such as socio-economic and socio-cultural prerequisites and conditions influencing pupils' everyday life in school through their interactions with teachers (Bronfenbrenner, 1979, 1986; Malmberg, 1998).

In short, my want to further investigate and to problematize the relation between pupil motivation and academic achievement gave birth to the open-ended question: "Why do all children in Sweden go to school?" (Write your own reasons). This question was then adopted by a longitudinal Swedish project called "Evaluation Through Follow Up" (see e.g. Härnqvist, 2000) and included in a data collection in the sixth grade (concerning 13-year-olds) of the Swedish compulsory school in March 1995 (for more details of this project, see Chapter 3 in the following sections).

To find out whether there exist different categories of reasons (i.e. motives and goals and thus different types of motivation) with respect to going to school and to investigate how they relate to achievement over time is, thus, another objective of the present investigation. The difficulty in defining pupil motivation implies, however, that the relationship between motivation and achievement can not be taken for granted and must be problematized as well.

STRUCTURE OF THE THESIS

Chapter 2. This chapter opens with a short presentation of the concept of motivation. My intention with the chapter is to provide an up to date overview of present theories and research on motivation and to present their as yet unresolved problems.

Chapter 3. This chapter begins by providing information about the "Evaluation Through Follow Up" project to which the present investigation belongs. The chapter also includes a discussion of the open-ended question used in the present investigation, advantages and disadvantages of open-ended questions, reliability issues and research validity.

Chapter 4. This chapter presents an overview of the pupil responses to the open-ended question (Study 1).

Chapter 5. In this chapter the results from the second empirical study are presented (Study 2). These results concern the relationship between pupil motivation and school achievement.

Chapter 6. This chapter discusses the results of both studies, methods issues and implications for future research.

CHAPTER 2

THEORIES AND RESEARCH ON MOTIVATION

In the present chapter a general definition of the concept of motivation will be presented. After that I will present theories of motivation where the concept of motivation has been defined as motives or goals and related to achievement behaviour and achievement outcomes. At the end of the chapter some theoretical and methodological considerations concerning the empirical studies that have been conducted within the framework of the present investigation will be outlined.

DEFINING THE CONCEPT OF MOTIVATION

Motivation is one of the most used concepts within the fields of psychology, education and educational psychology. There are few concepts within these fields that have been treated in as many different ways as motivation however, and the concept has connotative as well as paradigmatic definitions.

In its connotative forms the concept of motivation often refers to achievements in school as due to interest. Defining motivation in terms of interest and achievement however, is to involve two further complex concepts each of which also belongs to specific theoretical perspectives on motivation (see intrinsic motivation, in Pintrich & Schunk, 1996, Deci & Ryan, 1985, 1991; personal interests, in Eccles & Wigfield, 1995) and achievement orientations (see goal orientations, in e.g. Dweck & Leggett, 1988). Interest is also a concept that is sometimes used interchangeably with the concept of motives (Krapp, Hidi & Renninger, 1992). In my opinion, the latter is due to the fact that the concepts of interests and motives are theoretically not well separated. The fact that the concepts used to define the concept of motivation in themselves are not well defined creates problems and not the least so when the intention is to measure

motivation. Garrison and Magoon (1972) summarise this problem by stating that the research on motivation is hampered by the difficulty of adequately describing the processes involved, by the variations in the concepts that are used, and by the differences in emphasis or point of view.

Much of the early research on motivation (i.e. in the 60's and 70's) has been conducted in controlled laboratory environments. This research was predominately concerned with studying isolated aspects of human behaviour. Along with the increasing emphasis on schooling and other applied settings new perspectives on motivation were developed however, particularly the so-called cognitive and social cognitive perspectives on motivation. The term social cognition is used in different ways by different theorists but the most widely used sense according to Durkin (1995) is that of social cognition as "cognition about social phenomena" (op. cit., p. 289), or as Fiske and Taylor (1991) expressed it: "The object of study concerns how people make sense of other people and themselves" (op. cit., p. 14). In these new cognitive and social cognitive perspectives on motivation the importance of studying human behaviour and motivation by taking into consideration the individual's thoughts, perceptions, beliefs, goals, expectancies, values, and attitudes was stressed.

The development of these new perspectives on motivation did not make the study of human behaviour and motivation any easier, however. This is because motivation came to be perceived as a complex, multi-dimensional phenomenon, referring to a variety of theoretical constructs. The study of human behaviour and motivation as a multi-dimensional phenomenon is offering considerably more insights into its functions than when studied as a single construct or with simple models. The problem is, however, to separate all the involved constructs at the same time as their relations with one another and the behavioural and achievement outcomes are determined.

In an attempt to summarise this multi-dimensional phenomenon, Pintrich and Schunk (1996) have proposed a definition of motivation that incorporates elements basic to many of the current cognitive and social cognitive perspectives on motivation. According to Pintrich and Schunk (op. cit.) motivation is the process whereby goal-directed activity is instigated and sustained. Defining motivation as a process that is internal to the individual implies that we can never observe the motivation of a person directly but are forced to infer it from the person's verbalisations or his behaviours. Consequently, to state that a pupil in school is motivated or "unmotivated" towards his studies is meaningless unless the relevant behaviour is specified. Simultaneously, in my opinion it is important

to realise that being described as "unmotivated" often implies a lack of correspondence between behaviour and external expectations. A lack of motivation in the school setting would then imply that the behaviour of a pupil is not in correspondence with a teacher's intellectual or behavioural expectations with respect to this pupil.

The definition of motivation as an internal process involves goals. Goals are considered as providing an impetus for and direction to action. The importance of goals in the study of motivation is emphasised by all contemporary cognitive and social cognitive perspectives on motivation, in spite of the fact that all of them may not have the study of goals in focus. For instance, within developmental theory Piaget (1981) assumes that all behaviour is dictated by interests and goals. While goals may not be well formulated or defined and may change with experience, the point is that individuals have something in mind and direct their actions towards particular objects, states, events, and so on, that they are trying to attain (or avoid) (Oppenheimer, 1991b).

The concept of actions is also emphasised by Pintrich and Schunk (op. cit.) who state that motivation requires both physical and mental actions. The physical actions entail effort, persistence, and other overt actions, while the cognitive actions entail planning, rehearsing, organising, monitoring, decision making, problem-solving, and assessing progress. Individuals are thus considered as engaging in physical and mental actions in order to attain personally relevant goals.

Motivated actions are assumed to be both instigated and sustained. Aiming towards the attainment of a goal is emphasised as being very important and also difficult because it involves making a commitment with respect to a goal (Locke & Latham, 1990) at the same time as the individual must either be prepared to change actions in order to reach the goal or to change the goal and set a new one. Making a commitment is hence of crucial importance in order to sustain action because as stated by Hollis (1977) "good intentions" alone do not usually result in relevant behaviour.

Within motivated activities, that is, activities in which the individual is engaged in order to reach a particular goal, other cognitive and motivational processes like what kind of expectations the individual has while striving for a particular goal, values, social abilities, and affects are also considered as being of crucial importance in order to sustain action. This is because many of the major goals that individuals set up and strive for are long-term or future goals (e.g. obtaining

a good job or starting a family) (see Nurmi, 1992; Malmberg, 1998; Pulkkinen, 1990; Trommsdorff, 1986). Such processes are thought to function as resources or tools to help individuals to surmount difficulties and obstacles and sustain actions towards goal attainment over time (Oppenheimer, 1991b).

To present each of the processes involved in the multi-dimensional construct of motivation and the relationships between them is a difficult task and outside the scope of the present investigation. Hence, given the complexity of the construct of motivation and the involved processes in this chapter the discussion of motivation will concentrate on theories of motivation where the constructs of needs, motives and goals in particular are in focus. These theories of motivation try to explain why individuals initiate particular actions (see needs in Murray, 1938; goals in action theory, e.g. Oppenheimer, 1991a, 1991b), what kind of motives (see intrinsic motivation, e.g. Deci & Ryan, 1985, 1991) and goals they try to fulfil with their actions (see multiple goals in Ford, 1992 and Wentzel, 1989), and why they select particular goals (see mastery and performance goal orientation, e.g. Dweck & Leggett, 1988). However, in spite of the fact that all these motivation theories focus upon the construct of goals, they define this construct in different ways, view the individual from different perspectives, make different assumptions about the nature of goals and use different methods to measure goals. The purpose of the next section is, thus, to present some central aspects of these motivation theories and then to discuss the theoretical and methodological considerations underlying the present investigation.

GOAL THEORIES

In the next sections, the interactionist goal theories of Ford (1992) and Wentzel (1989) will be presented. Ford deals with motivation and goals from a broad interactionist perspective where he tries to explain what motivates human behaviour in general, while Wentzel is interested in explaining pupil motivation and how different kinds of goals are related to achievement outcomes.

The interactionistic action theoretical perspective on motivation and goals (see e.g. Oppenheimer, 1991a, 1991b) is based on assumptions similar to those underlying Ford's but is focusing especially on the conceptual definitions of the constructs of needs, motives and goals and on the interaction between organism and environment seen from a developmental perspective.

Before moving on to these perspectives on motivation and goals, Murray's (1938) interactionist need-based theory of motivation will first be presented. Murray's need-based theory of motivation, including a taxonomy of 20 needs, may be considered as an older motivation theory, in which the construct of needs and motives are assumed to be the cause of action (see also Maslow, 1954; Atkinson, 1964; action theory, Oppenheimer, 1991a).

Murray's taxonomy of needs

The construct of needs is basic to more former perspectives on motivation (see also Maslow's hierarchy of needs, 1954). One of the best well known is Murray's need-based theory of motivation and his list of 20 needs (1938). Although this motivation theory is based on the classic homeostatic principle, assuming that unfulfilled needs generate a tension that leads to some approach or avoidance behaviour to release the tension and satisfy the need, this theory represents actually one of the first organismic-contextual, interactionist perspectives on motivation. According to Murray (1938),

> A need is a construct (a convenient fiction or hypothetical construct), which stands for a force (the physico-chemical nature of which is unknown) in the brain region, a force which organises perceptions, apperception, intellection, conation, and action in such a way as to transform in a certain direction an existing, unsatisfying situation. A need is sometimes provoked by internal processes of a certain kind ... but more frequently (when in a state of readiness) by the occurrence of one of a few commonly effective press (or by anticipatory images of such a press). Thus it manifests itself by leading the organism to search for or to avoid encountering or, when encountered, to attend and respond to certain kinds of press (pp. 124-124).

This definition suggests that while needs can be evoked by processes internal to the individual, they are more likely to be related to the environmental press of the situation. By this assumption, Murray was one of the first motivation theorists who presented the idea of environmental pressures and that contextual features can evoke and shape needs. Consequently, in order to explain human behaviour, Murray not only emphasised the importance to map the needs of the individual, but also the environmental pressures within which the individual lives (Hall & Lindzey, 1978).

With regard to these environmental pressures, Murray (1938) proposed a distinction between alpha and beta environmental pressures. While alpha pressures are thought to represent the "objective reality" of the environmental

context as it would be defined by others, the beta pressures refer to the individual's own idiosyncratic perception and construction of the environmental context (see also the active organism versus mechanistic paradigm of human action, Reese & Overton, 1970). This distinction between actual and perceived contexts foreshadows current social cognitive and constructivist perspectives on motivation, such as the goal orientation theory of Ames (1992).

In order to study the interactions between individual needs and environmental pressures, which are assumed to always interact with each other, Murray (1938) emphasised the need of a larger, more molar unit of analysis, called "a thema". Accordingly, "a thema" in Murray's theory of needs represents the individual's needs, the situational pressures that evoke them, and the outcomes based on the interaction between needs and pressures (Hall & Lindzey, 1978). This "thema" construct is close to constructs in current interactionist perspectives on motivation such as the "person-in-situation" construct of interactional psychology (Magnusson, 1990; Heckhausen, 1982; Kelly, 1979; Lerner, 1983; Pervin, 1968) and the "behaviour episode schemas" in Ford's (1992) goal theory.

Table 1 displays Murray's taxonomy of the 20 needs that are assumed to drive all human behaviour across the life span. This list is to be compared with Ford's (1992) list of goals to be presented in the next section.

Table 1. Murray's taxonomy of 20 needs that are assumed to drive all human behaviour across the life span, listed in alphabetical order.

Abasement (Aba):	to submit passively to external force, to admit inferiority, to seek pain, punishment, misfortune
Achievement (Ach):	to accomplish something difficult, to master, to excel, to rival and surpass others, to overcome obstacles and attain a high standard
Affiliation (Aff):	to draw near and enjoyably co-operate or reciprocate with an allied other, to adhere and remain loyal to a friend
Aggression (Agg):	to overcome opposition forcefully, to fight, to revenge an injury, to attack, injure or kill another, to oppose forcefully
Autonomy (Auto):	to get free, to resist coercion and restriction, to be independent and free to act, to avoid or quit activities prescribed by domineering authorities
Counteraction (Cnt):	to master or make up for a failure by restriving, to maintain self-respect and pride on a high level
Defendance (Dfd):	to defend the self against assault, criticism, and blame, to conceal or justify a misdeed, failure, or humiliation
Defence (Def):	to admire and support a superior, to yield eagerly to the influence of an allied other, to emulate an exemplar, to conform to custom
Dominance (Dom):	to control one's human environment, to influence or direct the behaviours of others by suggestion, seduction, persuasion, or command

Exhibition (Exh):	to make an impression. to be seen and heard to, to excite, amaze, fascinate, entertain, amuse, to entice others
Harmavoidance (Harm):	to avoid pain, physical injury, illness, and death, to take precautionary measures, to escape from a dangerous situation
Inavoidance (Lnf):	to avoid humiliation, to quit embarrassing situations that may lead to belittlement from others, to refrain from action because of fear of failure
Nurturance (Nur):	to give sympathy and gratify the needs of a helpless object such as an infant or any object that is weak, disabled, tired, lonely, sick, dejected, to feed, help, support, console, protect, comfort others
Order (Ord):	to put things in order, to achieve cleanliness, arrangement, organisation, balance, neatness, tidiness, and precision
Play (Play):	to act for fun without purpose, to seek enjoyable relaxation of stress, to like to laugh and make jokes, to participate in games and sports
Rejection (Rej):	to separate oneself from an object, to exclude, abandon, expel or remain indifferent to an inferior object
Sentience (Sen):	to seek and enjoy sensuous impressions
Sex (Sex)	to form and further an erotic relationship, to have sexual intercourse
Succorance (Suc):	to have one's needs gratified by the sympathetic aid of an allied object, to be nursed, supported, protected, loved, advised, to always have supporter
Understanding (Und):	to ask or answer general questions, to be interested in theory, to speculate, formulate, analyse, and generalise

From *Theories of Personality* by C.S.Hall and G.Lindzey, 1978, New York: Wiley.

Ford's taxomomy of goals

The goal theory proposed by Ford (see Ford, 1992; Ford & Nichols, 1991), termed the Motivational Systems Theory (MST), is a comprehensive theory of human behaviour and motivation, which focuses on the development of the whole person-in-context (see Ford & Ford, 1987). This model is in line with the organismic tradition, which focuses on the individual as the unit of analysis, but is also sensitive to the importance of embedding the individual in the situation, as stressed by Murray (1938), and, especially, in the biological, social and environmental contexts that are crucial for development. So, even if this theory of motivation is to be conceived as interactionist its emphasis is on the individual. In his attempt to present all the factors, which are of importance in the study of human behaviour and motivation in one model, Ford proposes a simple formula (1992). According to this formula:

Achievement or competence =

(Motivation x Skill) / Biology x Responsive environment

According to Ford (1992), actual "achievement and competence are the result of a motivated, skilful, and biologically capable person interacting with a responsive environment" (op. cit., p. 70). Skills represent the various cognitive and information-processing functions as well as the actual behaviours necessary for competent action. Biology is defined in terms of the person's physical and biological capabilities that can enhance or constrain performance. Responsive environment includes the various contexts, such as the home, school, community, peer groups, that individuals move through and that should provide positive opportunities for development (see also Maslow, 1954).

In Ford's formula, motivation refers to "a psychological, future-oriented (anticipatory) and evaluative (rather than instrumental) phenomenon" (op. cit., p. 248). In this sense, motivation provides the energy and direction for behaviour (the future-oriented function) and the evaluation of behaviour in terms of whether to continue or stop it (persistence), whereas other cognitive and behavioural components provide the means for a particular behaviour (i.e. the instrumental function that is represented by skill in the formula. This definition of motivation is remarkably similar to the general definition of motivation proposed by Pintrich and Schunk (1996). On the basis of these general characteristics of motivation, the concept of motivation can be expressed as a function of three major components, which are:

Motivation =

Goals x Emotions x Personal agency beliefs

Given this definition, Ford (1992) assumes that goals, emotions, and personal agency beliefs always interact in order to determine motivation. If any of these three components is missing, individuals will not be motivated in that situation.

In my review of Ford's (1992) goal theory, I will concentrate on the goal component of the above presented formula. However, the personal agency beliefs in this theory of motivation are basically the same constructs as self-efficacy beliefs (Bandura, 1982, 1986, 1989, 1993) and control beliefs (e.g. Little, Oettingen, Stetsenko & Baltes, 1995), which in general refer to people's self-evaluative judgements of their capabilities to accomplish certain tasks and activities (see also Harter, 1985; Wigfield & Eccles, 1992).

In Ford's theory of motivation, goals are characterised by two important aspects: goal content and goal processes. Goal contents refer to the desired or undesired consequences of a particular goal and are assessed by asking people "what they want," "what they are trying to accomplish," and "why they did

something" (Ford, 1992). Goal processes, on the other hand, involve different methods or styles that individuals use to conceptualise a goal. In my review below I will concentrate on the goal content aspect of goals.

Ford has classified the contents of goals into a taxonomy consisting of 24 general categories, which are assumed to represent classes of goals at a relatively abstract level of analysis. According to Ford (1992) while on a concrete level individuals may conceive of their own personal goals in a myriad of idiosyncratic ways, at an abstract level the idiographic goals of an individual are expected to fit into the 24 goal categories. The 24 goals in this theory may be combined into larger units or "themes" (cf. Murray's "thema") that represent the merging of several goal categories (see also Ford, 1985).

Table 2. Ford and Nichols' taxonomy of human goals.

I. DESIRED WITHIN-PERSON CONSEQUENCES	
A.	Affective goals
Entertainment:	experiencing excitement, arousal; avoiding boredom, stressful inactivity (cf. Murray's Play in Table 1)
Tranquillity:	feeling relaxed and at ease; avoiding stressful overarousal
Happiness:	experiencing joy, satisfaction; avoiding emotional distress
Bodily sensations:	experiencing pleasure associated with physical sensations, movement, or body contact; avoiding unpleasant bodily sensations (cf. Murray's Sen and Sex in Table 1)
Physical well-being:	feeling healthy, energetic; avoiding feelings of lethargy, weakness, or ill-health
B.	Cognitive goals
Exploration:	satisfying curiosity about personally meaningful events; avoiding a sense of being uniformed
Understanding:	gaining knowledge; avoiding misconceptions (cf. Murray's Und in Table 1)
Intellectual creativity:	engaging in original thinking, using novel ideas; avoiding mindless or familiar way of thinking
Positive self-evaluations:	maintaining a sense of self-confidence, pride, or self-worth; avoiding feelings of failure, guilt, or incompetence (cf. Murray's Cnt and Inf in Table 1)
C.	Subjective organisation goals
Unity:	experiencing a profound or spiritual sense of connectness, harmony with people, nature, or a greater power; avoiding feelings of psychological disunity or disorganisation
Transcendence:	experiencing optimal or ordinary states of functioning; avoiding feeling trapped within the boundaries of ordinary experience

Table 3. Ford and Nichols' taxonomy of human goals.

II. DESIRED PERSON-ENVIRONMENT CONSEQUENCES	
A.	Self-assertive social relationship goals
Individuality:	feeling of unique, special, or different; avoiding similarity or conformity with others
Self-determination:	experiencing freedom to make choices; avoiding feelings of being pressured, constrained, or coerced (cf. Murray's Auto in Table 1)
Superiority:	comparing favourably to others in terms of winning, status, or success; avoiding unfavourable comparisons
Resource acquisition:	obtaining approval, support, advice, or validation from others; avoiding social disapproval and rejection (cf. Murray's Suc in Table 1)
B.	Integrative social relationship goals
Belongingness:	building and maintaining attachments, friendships, intimacy, or a sense of community; avoiding feelings of social isolation (cf. Murray's Aff in Table 1)
Social responsibility:	keeping interpersonal commitments, meeting social role obligations, conforming to social and moral rules; avoiding social transgressions and unethical and illegal conduct (cf. Murray's Def in Table 1)
Equity:	promoting fairness, justice, or equality; avoiding unjust or unfair actions
Resource provision:	giving approval, support, advice, or validation to others; avoiding selfish or uncaring behaviour (cf. Murray's Nur in Table 1)
C.	Task goals
Mastery:	meeting a challenging standard of achievement or improvement; avoiding incompetence, mediocrity, or decrements in performance (cf. Murray's Ach in Table 1)
Task creativity:	engaging in activities involving artistic or creative expressions; avoiding tasks that do not provide opportunities for creative action
Management:	maintaining order, organisation, or productivity in daily life tasks; avoiding sloppiness, inefficiency, or disorganisation (cf. Murray's Ord in Table 1)
Material gain:	increasing amount of money or tangible goods one has; avoiding loss of money or material possessions
Safety:	being unharmed, physically secure, safe from risk; avoiding threatening, depriving, or harmful circumstances (cf. Murray's Harm in Table 1)

From *Motivating Humans: Goals, Emotions, and Personal Agency Beliefs* by M. Ford, 1992, Newbury Park, CA: Sage Publications.

Two main categories of goals can be distinguished in Ford's taxonomy: goals that are intrapersonal and reflect desired within-person consequences (see Table 2) and outcome goals that represent desired outcomes or end-states of a person's interactions with the environment (see Table 3). As can be seen in Table 2, with respect to intrapersonal goals, three main categories of goals have been distinguished by Ford: a) the affective goals, which represent feelings and emotions that individuals

want to experience or avoid, b) the cognitive goals, which represent four kinds of goals with the first three representing three different levels of cognitive engagement, and the fourth (i.e. positive self-evaluation) referring to the protection of self-worth or the self in general, and c) the subjective organisation goals, representing a complex mixture of both affective and cognitive states, such as unity goals and transcendence goals.

As can be seen in Table 3 above, the outcome goals that represent desired outcomes or end-states of a person's interactions with the environment, involve three major groups of goals which refer to: a) self-assertive social relationship goals, b) integrative social relationship goals, and c) task goals. In the self-assertive social relationship goals the individual is most prominent, while in the integrative social relationship goals the group or others are prominent. Each of the self-assertive goals is paired with an integrative goal to reflect the general tension between individuality and the group. For instance, the goal individuality reflects the individual's desire to be unique and different from others, whereas the goal belongingness represents a need to be part of a larger group or community.

The two goals self-determination and social responsibility reflect the individual's desire to experience freedom in making choices. These goals also reflect the individual's need to conform to certain rules and social obligations in general and to rules and obligations in the classroom, in particular (see also Wentzel, 1991b; Blumenfeld et al., 1983; Blumenfeld et al., 1986).

Superiority goals represent individuals' needs to be best in comparison to others, to win, to achieve success at a higher level than others (positive social comparison), as well as to avoid negative social comparisons with others. The countervailing goal in the taxonomy is an equity goal, referring to individuals' need for justice, equality, and fairness. The two goals, resource acquisition and resource provision, represent individuals' need to acquire help and support from others, as well as to provide help and mentoring to others. These two goals are expected to be reciprocally related.

The final category of goals displayed in Table 3 (i.e. the task goals), refers to how individuals choose to relate to different types of tasks they confront in their lives.

Some reflections

In their motivation theories, Murray (1938) and Ford (1992) have been concerned with the identification of general or universal needs and goals that they

assume drive all human behaviour or actions across the life span. Murray's (1938) need-based theory of motivation has, however, been criticised for being tautological. Because Ford's (1992) taxonomy of goals to a large extent overlaps with Murray's taxonomy of needs, Ford (1992) has argued that his taxonomy of goals is not as tautological as is Murray's taxonomy of needs because he attempts to distinguish between goals and the behaviour patterns that might be generated by the goals, which Murray did not do, according to Ford. In addition, the goals listed in his taxonomy should according to Ford (1992) also be conceived as being more specific and less global than Murray's taxonomy of needs.

The serious problem with needs pointed out by Ford (1992) (i.e. the unresolved issue of what a need actually is, how it is linked to behaviour, and especially the difficulty to distinguish between the need as a cause of behaviour and the actual behaviour) is actually one of the main reasons as to why in current cognitive and social cognitive theories, including Ford's goal theory, needs have been recast as goals (Pintrich & Schunk, 1996). However, even though these motivation theories represent an improvement on traditional need-based theories of motivation (e.g. Murray's, 1938), according to critical voices (e.g. Niemivirta, 1998b), the problem of differentiating between the different phases of motivated action still remains.

In the next section, the construct of goals within action theory will be presented. In contrast to Murray's (1938) and Ford's (1992) organismic-contextual theories of motivation, which focus on the individual as the unit of analysis, action theory is concerned with explaining the complex reciprocal interaction between the individual and the context in which the goals of the individual are to be realised (for a review of the action theoretical perspective to goals see Oppenheimer, 1991a, 1991b; Heckhausen, 1991, Heckhausen & Kuhl, 1985; Eckensberger & Meacham, 1984). Moreover, in contrast to the motivation theory of Ford (1992), which is primarily concerned with exploring what kind of goals individuals may try to pursue in any situation, central to action theory is the issue of how people set up their goals. According to an action theoretical approach to goal, of importance to a person when he sets up his goals are concepts such as intentions, meaning, wishes, desires and self-reflection (see also Piaget, 1950).

Goals in action theory

The basic assumptions of action theory derive from Soviet psychology (Leontiev, 1981; Vygotsky, 1974) and historical-materialist theory in particular, according to

which human consciousness changes as the materialistic conditions in society change (Leontiev, 1981). Consciousness in action theory refers to the "subjects' reflection of reality ... (or of) ... their own activity" (op. cit., p. 56). However, this does not mean that consciousness is exclusively a product of society (cf. the mechanistic approach to human action, Reese & Overton, 1970), or that it is exclusively a product of the self or self-reflection (cf. the organismic approach, Reese & Overton, 1970). Human consciousness within action theory refers to the reciprocal interaction between the individual and the context implying that it is not possible to investigate actors as context-independent or contexts without actors.

On the basis of the assumption that the individual's intentions, wishes and desires and the features of the environment are always interacting, action theory proposes the construct of human action as a unit of analysis (cf. Murray's "thema", 1938, and Ford's "theme", 1992).

From an action theory perspective, central in the understanding of human actions are the interests and goals that individuals are trying to fulfil (cf. Hollis, 1977; Oppenheimer, 1987, 1988). Interests and goals in action theory refer to the relationship between needs and objects or people thought to be capable of satisfying these needs. Needs are, however, not defined by their organic nature (cf. Murray, 1938; Maslow, 1954) but by their functionality. Needs are manifest disequilibria (Piaget, 1981). Expressed differently, interests and goals in action theory are objects or people but also experiences that the individual wants, wishes or desires and which the individual acts towards in his strive to satisfy his needs. The objects, people, or experiences that individuals set up as goals to be achieved are assumed to be meaningful to them, that is, in accordance with their values (cf. Rokeach, 1979; Wigfield & Eccles, 1992), but also in accordance with external rules (cf. Hollis, 1977; Ford, 1992).

The conception of autonomous man in action theory

According to Hollis (1977), while the individual is interacting with the environment, in his strive to satisfy wants, wishes or desires, the environment will constrain the individual's actions by the nature of its structure (see also Oppenheimer, 1995). The conception of man as active and autonomous is, however, basic to the action theory perspective on motivation. The conception of autonomous man implies that human action is "purposive, intentional and subject to rules" (Hollis, 1977, p. 107).

In his theory of autonomous man Hollis (1977) has tried to describe the way in which individuals should act to permit their actions to be called autonomous (cf. Deci & Ryan, 1985, 1991). Hollis assumes that man's "freedom of action" resides in the way he deals with the behavioural rules that define a certain role that man is to play, and how this role should be played well (cf. classroom competence, Wentzel, 1989, to be presented in the following sections).

According to Hollis (1977) when individuals deal with behavioural rules they act on rational grounds. This implies that individuals will have "good reasons" to act. The postulation of good reasons, however, "raises the question of motive ... A motive, viewed for our purposes as a desire defined in terms of its object, can be treated ... as the actor's real reasons defined in terms of his interests" (Hollis, 1977, p. 132). As such, reasons are determined by "man's duties in society" (cf. von Wright, 1976, to be presented in the following sections).

If man's actions were merely determined by social duties, then autonomy would loose its meaning, however. Consequently, besides social duties individuals should have personal interests and goals as well. According to Hollis (1977), the ultimate personal interest that individuals may possess is the desire to play particular social roles in such a way that they can identify themselves with those roles - that is, express themselves by playing these roles. According to Hollis (1977) individuals should possess a personal identity to permit them to act rationally. "Without strict identity there can be no good reasons for action" (Hollis, 1977, p. 98). Thus, it can be concluded that a particular goal of an action finds its origins within the self-concept (i.e. subjective identity). The self-concept here is perceived as a result of primarily the individual's own interpretation of himself in action (see Oosterwegel & Oppenheimer, 1993).

According to Hollis (1977) the concepts of purpose, intention, and rules permit us to identify and understand actions only and are not sufficient to reach an explanation of human action. Hollis (1977) argues that the introduction of a purpose or goal in our analyses is very important for the distinction between the cause and the goal of an action. As Hollis states, "To put it too simply, goals pull from in front and causes push from behind" (p. 109). In Hollis' theory of autonomous man, intentions are related to "criteria of sameness and difference for possible actions and are crucial for deciding what (the agent) chooses to do and what he prefers it to" (p. 107) -- that is, "what a man does may depend on what he intends to do and so accordingly does the classification on what has to be explained" (p. 115).

According to Hollis (1977), the rules are part of the external social environment in which the agent acts. Rules are considered to give meaning to actions. This means that "all action is rule-governed but all actions are not ... The thought that men follow rules is itself neutral; but to explain the actor in terms of the rules makes the actor Plastic" (Hollis, 1977, p. 121). However, one of the essential characteristics of autonomous man is that he is not rule governed in the selection of a goal and what action or action sequence he chooses with the purpose to attain that goal. The implementation of the intended action (i.e. the observable behaviour) is, however, very often rule governed because it is expressed within, and has to be accepted by, the social environment.

"An actor can have a purpose and follow rules intentionally without acting autonomously" (Hollis, 1977, p. 122). To overcome this problem, Hollis (1977) introduced the concept of goal rationality ("Zweckrationalität"), which refers to "the most rational means to reach a goal," seen from the actor's perspective, and that give the "actor the highest chance of success at the lowest opportunity costs" (p. 124). However, "the mere fact that the actor hits on it (i.e. the overall best means) is not sufficient and perhaps not necessary for his actions to be zweckrational, the actor must know that he has found the best means" (p. 125). Here Hollis (1977) introduced an important distinction between objective and subjective goal rationality. An action is considered to possess an objective goal-rationality if it is the objectively overall best means to attain the particular goal. It possesses a subjective goal-rationality if the actor him- or herself has objective good reasons to believe that it is the best means to attain the particular goal. According to Hollis (1977), the actor may have reached this judgement incorrectly or have based his judgement on too little information. The point is, however, that "the good reasons must be the actor's own reasons" (Hollis, 1977, p. 132).

Wants and duties in action theory

According to von Wright (1976) the actions of an actor are best understood when studied in the context of institutionalised human relationships. According to him, there are two major determinants of human behaviour, the actor's intention to act and his mental state. Actions are fully determined by the intentions and the beliefs of the actor. The choice of a particular action from a number of alternative actions is not, however. The actor's choices are constrained or sanctioned by the (social) environment.

In von Wright's (1976) action model, an important distinction between external and internal determinants of action is made. The external determinants are characterised by symbolic challenges (e.g. verbal orders, requests, etc.). Symbolic challenges are the "institutionalised forms of behaviour or practices" (op. cit., p. 419), which represent one form of participation in the social context. Complying to symbolic challenges implies according to von Wright (1976) a certain level of "conformity with rules such as the laws of the state or the codes of morality and good manners or custom or traditions" (p. 419). Learning to follow these challenges takes place under the strict guidance of the external social context. Von Wright considers this type of learning to be a social motivational mechanism -- the "normative pressure" (op. cit., p. 419).

The internal determinants involve intentions and mental states. However, fundamental to the explanation of human action is the question "why people have the intentions they have" (op. cit., p. 427). Two types of internal determinants of intentions are proposed by von Wright: wants and duties. Wants refer to the intrinsic values of actions, whereas duties refer to explicit and implicit rules related to, for instance, the social role of an actor (i.e. the "role-holder-duties", op. cit., p. 429). The duties can overrule the wants, though, "when a man has no time for his wants, only for his duties, he is a slave to his roles" (op. cit., p. 430).

Wentzel's goal theory

In Wentzel's goal theory (1989), pupils' own reasons to conform to the demands and expectations of the social environment and to show a socially desirable behaviour are summarised in the concept of social responsibility (cf. von Wright's "normative pressure", 1976, p. 419).

According to Wentzel (1991b) social responsibility or behaving responsibly in the classroom makes two contributions to learning: 1) Behaving responsibly can facilitate learning by promoting positive interactions with teachers and peers (e.g. peer sharing of materials or exchanging help with assignments; 2) Pupils' goals to be compliant and responsible can both constrain and enhance the learning process (e.g. pupils' striving to complete assignments on time to comply with requirements). In the classroom the rules and norms that define the student role are most relevant. In them (i.e. the roles) pupils are required to adhere to rules for interpersonal conduct as well as to those related to curricula tasks (op. cit., p. 2) (see also Malmberg, 1998; Andersson, 1996).

While "the adherence to social rules and role expectations" (Wentzel, 1991, p. 2) in the school setting is instrumental in the acquisition of academic knowledge and skills, the studies conducted by Wentzel suggest that socially responsible behaviour in the classroom contributes, at the same time, directly to learning and academic achievement (Wentzel, 1989, 1991a, 1991c). The pursuit of social responsibility goals is positively related to academic achievement only if the goals are pursued simultaneously with learning goals (for a review of the literature on social responsibility and academic achievement, see Wentzel, 1991b).

But why would pupils be motivated to comply to classroom norms and adult expectations for responsible classroom behaviour? According to Wentzel (1989), one of the reasons is that the tasks to be taught in school are most of the time not intrinsically interesting or challenging for pupils (see also Deci & Ryan, 1985). Being motivated to be compliant and to look towards others for approval, that is, to adopt extrinsic goals (see extrinsic motivation in the next section) or performance goals (see goal orientation theory in the forthcoming sections) would then help pupils to maintain cognitive engagement and performance. On the other hand, if the pursuit of this kind of goals (i.e. extrinsic, performance or social responsibility goals) takes precedence over the pursuit of task-intrinsic learning goals that would have a negative influence on achievement (Wentzel, 1989).

In the next section, I will first review some general theoretical assumptions central to intrinsic and extrinsic motivation and the self-determination (autonomy) view of intrinsic motivation developed by Deci and Ryan (1985, 1991) in particular, and then move on to goal orientation theories.

INTRINSIC AND EXTRINSIC MOTIVATION

In contemporary intrinsic motivation theory the motives or goals of an activity (or learning itself) is thought to lay in the activity itself. According to Bruner (1971), children are born with learning motives and a will (or want) to learn and attain knowledge for its own sake. When children examine their surroundings and begin to understand their situation through act and activity, they are driven by interests (cf. Piaget, 1981; and action theory in the previously presented sections), and curiosity, an inner motivation or compulsion. Inner motivation is characterised according to Bruner (op. cit.) by a want or desire to learn through the "act of discovery", which implies that children examine alternatives and test their ideas. By learning according to self-set or internal standards, and by

mastering the content of different activities and tasks, children strive for increasing their competence at these activities and tasks (cf. mastery goals in goal orientation theory in the forthcoming sections).

In Deci and Ryan's (1985, 1991) self-determination (autonomy) view of intrinsic motivation, humans have an innate need to be autonomous and to engage in working tasks and activities because they want to and because they find them enjoyable. Intrinsic motivation is according to Deci and Ryan's theory of self-determination an innate human need, which begins in infants as an undifferentiated need for competence and self-determination (Deci & Porac, 1978). However, being self-determined requires that individuals are aware of and accept their strengths and limitations, are aware of the forces acting on them, are free to make choices, are responsible for their actions, and can decide upon and set ways to satisfy needs. This view of intrinsic motivation is rather similar to the view of autonomous man (Hollis, 1977) central to action theory.

Seen from an intrinsic motivation perspective, while intrinsically motivated pupils are expected to engage in different working tasks and activities because they want to and because they enjoy themselves while being engaged in them, extrinsically motivated pupils are expected to do this because they believe that participation in these activities will result in desirable outcomes such as a reward, teacher praise, or avoidance of punishment. Extrinsically motivated pupils are in general expected to engage in working tasks and activities as a means to an end (see the intrinsic-extrinsic perspective on motivation, White, 1959; Rotter, 1966; Bruner, 1971; de Charms, 1968, 1984; Harter, 1978, 1981; Deci & Ryan, 1985, 1991; Lepper, 1981, 1983).

Findings within intrinsic motivation research suggest that if individuals are offered or allowed to work in an environment that they perceive as supporting autonomy their intrinsic motivation will be enhanced (Deci & Ryan, 1991). Factors such as being able to make choices (Zuckerman, Porac, Lathin, Smith & Deci, 1978) and receive positive feedback that enhance perceived competence (Deci, Vallerand, Pelletier & Ryan, 1991) have also been found to enhance individuals intrinsic motivation. Findings within extrinsic motivation research, on the other hand, suggest that extrinsic factors, such as rewards and teacher praise, deadlines, imposed goals and social evaluation can diminish individuals intrinsic motivation (Cameron & Pierce, 1994; Deci & Ryan, 1991).

According to Deci and Ryan's (1985, 1991) self-determination (autonomy) view of intrinsic motivation, but also to many other contemporary perspectives

on intrinsic motivation, an individual's intrinsic motivation will be enhanced or diminished depending on how he comes to perceive his own actions. Intrinsic motivation is expected to drop if individuals come to believe that their actions are extrinsically determined and, thus, not controlled by themselves (see also locus of control, Rotter, 1966, and "internal/external" locus of control as an aspect of autonomous man, Oppenheimer, 1991a, Oppenheimer, Stet & Versteeg, 1986). Intrinsic motivation is, in addition, expected to drop if individuals are offered extrinsic rewards on tasks that are intrinsically interesting and that they already enjoy. Research findings within this field suggest that when the reward contingency is not longer in effect, then individuals will lose their justification and motivation for working on the task, while their own intrinsic motivation to work on the task will be gone as well (Lepper & Greene, 1978; Lepper, 1981, 1983; Lepper & Hodell, 1989).

A conclusion to be drawn so far is that pupils in school are facing and have to deal with a lot of extrinsic structures, controls, and rewards set by teachers and that these external factors may not fit or be in line with their own goals for being in school and learning. Pupils are consequently required to co-ordinate, compromise, comply or even give up their own goals according to what is possible in the school environment. But how do pupils themselves experience the fact of being involved in working tasks and school activities that lack personal meaning and the experience of failure in school? This kind of issue is examined, among other things, in research on goal orientations to be presented in the next sections.

GOAL ORIENTATION THEORIES

Before I start my review of goal orientations, some important distinctions between goal orientation theories and goal theories (Ford, 1992; Wentzel, 1989; action theory, e.g. Oppenheimer, 1991a, 1991b) are needed. First of all, goal orientation theories were primarily developed to explain children's reasons to engage in achievement behaviour (i.e. children's learning and performance on academic tasks in school settings). Goal orientation theories are, thus, not concerned with explaining human behaviour, in general. According to the literature, the focus of the goal orientation theories is on one single and specific cognitive goal: the mastery vs. the performance goal. This goal is more situated and context dependent than the particular goals in the goal theories of Ford

(1992) and Wentzel (1989), which refer more to a personal disposition or individual difference variables.

In goal orientation theory, a clear distinction between what is meant by goals in general and goal orientations in particular, and if mastery vs. performance is one single goal or two goals, has not been made (Pintrich & Schunk, 1996; Niemivirta, 1998a, 1998b; Urdan, 1997) and is causing great confusion. For instance, in many writings concerning goal orientation research, the concepts of goal and goal orientation have been used interchangeably. According to Niemivirta (1998b), given the large number of studies that have been produced on goal orientations and the rapidly growing interest that has been displayed for goal orientation, it is quite surprising to see how diverse and vague the conceptualisations of the construct have been.

In an attempt to clarify the distinction regarding mastery vs. performance goals, Pintrich and Schunk (1996) suggest that goal orientations do not focus on particular goals but rather on the question of why individuals want to accomplish a particular goal and how they approach this task. In my opinion, this definition of what goal orientation refers to is quite vague, however. Another definition, proposed by Ames (1992), is that goal orientations are to be seen as integrated patterns of beliefs that lead to "different ways of approaching, engaging in, and responding to achievement situations" (op. cit., p. 261). That is, goal orientations reflect a type of standard by which individuals judge their performance or success, which in turn has consequences for other motivational beliefs, such as attributions and affects, as well as actual performance and behaviour.

However, while goal orientations are labelled in different ways in the literature, they are always presented in the different goal-orientation theories as opposite pairs: a) learning and performance goals (Dweck & Leggett, 1988; Elliott & Dweck, 1988), b) task-involved and ego-involved goals (Nicholls, 1984), c) mastery and performance goals (Ames, 1992; Ames & Archer, 1988) and d) task-focused and ability-focused goals (Maehr & Midgley, 1991). According to Nicholls (1990), there is disagreement among these researchers with respect to the question of whether all these goal pairs represent the same construct. Irrespective of this disagreement, the two general goal orientations clearly involve a mastery and a performance orientation.

Goal orientation theory proposes that if pupils adopt a mastery-goal orientation towards their academic work, then they should be focused on learning and mastering the content according to self-set standards, developing new skills,

improving their competence, trying to accomplish something challenging, and trying to gain understanding and insights (Ames, 1992; Dweck & Leggett, 1988; Maehr & Midgley, 1991; Nicholls, 1984). On the other hand, if pupils adopt a performance-goal orientation towards their academic work, their focus is expected to be on demonstrating ability, trying to surpass normative performance standards, getting good grades or rewards, besting other pupils' performance and seeking public recognition of this performance level (Ames, 1992).

In goal orientation research mastery goals are, in general, associated with adaptive patterns of behaviour (Ames, 1992; Ames & Archer, 1988; Elliott & Dweck, 1988; Pintrich & De Groot, 1990), while performance goals are associated with maladaptive behavioural patterns (Dweck, 1986; Dweck & Leggett, 1988).

In the next section the goal orientation theory developed by Carol S. Dweck and her colleagues will be presented. This theory articulates the notion of what is meant by adaptive vs. maladaptive patterns of behaviour.

Dweck's goal orientation theory

The goal orientation theory of Dweck and her approach to achievement motivation is mainly based on experiments involving problem-solving (Ames, 1992). In these experiments children were given a series of problem-solving tasks for which success was assured, followed by tasks designed to promote failure (Dweck, 1986; Dweck & Leggett, 1988). While children were working on the tasks designed to promote failure, two different behavioural patterns were observed. These patterns involved a helpless and a mastery orientation.

In these experiments, children who were considered as showing a helpless orientation quickly began to report negative self-cognitions. That is, they attributed the reasons for their failures with the unsolved problems to personal incompetence, such as being less intelligent, having short memory, or lacking problem-solving abilities. In contrast, children who were considered as showing a mastery orientation did not perceive their difficulties with the unsolved problems as indications of low ability, but rather as challenges to be mastered through effort.

The "mastery oriented" children were, in addition, observed to engage in planning specific hypothesis testing strategies and monitoring their outcomes, and to instruct themselves to exert effort or to concentrate and then to monitor their level of effort or attention. In contrast to the "helpless" oriented children, the

"mastery oriented" children were also observed to maintain a continuous optimism (i.e. positive attitude) towards their efforts, believing that their efforts sooner or later would be successful.

In these experiments, the "helpless" oriented children began to express negative affect. These children expressed, among other things, a dislike toward the task (i.e. negative attitude), boredom with the problems, or anxiety over their performance. In contrast, the "mastery oriented" children maintained their positive affect toward the task and some even showed heightened positive affect while working with the difficult problems (Diener & Dweck, 1978).

According to Dweck and Leggett (1988) these studies demonstrate that in spite of the fact that all children possessed equal abilities (i.e. intelligence), were presented with identical tasks and achieved identical task outcomes, they perceived, processed and responded to the situation in two entirely different ways. These two different ways of interpreting the situation with the problem solving tasks and reacting to it are suggested to characterise "helpless" and "mastery" oriented children (see also Dweck, 1986).

On the basis of additional experiments Dweck and her colleagues (e.g. Elliott & Dweck, 1988) suggested that the two different reactions are a result of differences in the children's aims or purposes in the situation, that is, their goals. In these studies, "helpless" oriented children were found to pursue performance goals, by which they tried to confirm the adequacy of their ability and to avoid producing evidence of its inadequacy. "Mastery" oriented children, in contrast, were found to pursue learning goals. These children tended to view achievement situations as opportunities to increase their competence and pursue goals to acquire new skills or to extend their mastery (see Table 4).

Table 4. Theories, goals, and behavioural patterns in achievement situations.

THEORY OF INTELLIGENCE	GOAL ORIENTATION	PERCEIVED ABILITY	BEHAVIOURAL PATTERN
Entity (Intelligence is fixed)	Performance (Goal is to gain positive and avoid negative judgements of competence)	High	Mastery oriented (Seek challenge; high persistence)
		Low	Helpless (Avoid challenge; low persistence)
Incremental (Intelligence is malleable)	Learning (Goal is to increase competence)	If high or low	Mastery oriented (Seek challenge that fosters learning; high persistence)

From *A Social-Cognitive Approach to Motivation and Personality* by C. S. Dweck and E. L. Leggett, 1988, Psychological Review, Vol. 95, No. 2, 256-273.

To further test the assumption that the different behavioural patterns observed by Dweck and her colleagues are a result of differences in the children's aims or purposes in the situation (i.e. goals) Elliott and Dweck (1988) manipulated children's "performance" or "learning" goals and gave them the opportunity to choose from either challenging or easy tasks.

The findings obtained in this study indicated that when children were oriented towards skill acquisition and mastery, the assessment of their present ability was largely irrelevant (i.e. they had chosen the challenging learning tasks and displayed a mastery-oriented achievement pattern). In contrast, when children were oriented towards the evaluation of their abilities, the task they had chosen and the achievement pattern they displayed (mastery- or helpless-oriented) seemed to be highly dependent on their perceived ability. The hypotheses of this study are shown in Table 5.

Table 5. Summary of goals and predicted achievement patterns.

GOAL VALUE	CONFIDENCE[1]	PREDICTED ACHIEVEMENT PATTERN	
		Task choice	Response to difficulty
Performance goal is highlighted	High	Sacrifice learning and choose moderate or moderately difficult task to display competence	Mastery-orientation of effective problem-solving
	Low	Sacrifice learning and choose moderately easy task to avoid display of incompetence	Learned-helpless response of deterioration in problem-solving and negative affect
Learning goal is highlighted	High or low	Choose learning at risk of displaying mistakes to increase competence	Mastery-orientation of effective problem-solving

From *Goals: An Approach to Motivation and Achievement* by E. S. Elliott and C. S. Dweck, 1988, Journal of Personality and Social Psychology, Vol. 54, No. 1, 5-12.

Beliefs concerning intelligence and effort

But why do children have the goals they have? On the basis of their work Dweck and her colleagues have suggested that (children's) goal orientation is a function of the different theories about the nature of intelligence which they hold (Dweck & Leggett, 1988; Elliott & Dweck, 1988). In these theories, intelligence is defined by the children's perceptions of how ability and intelligence change over time.

According to Dweck and her colleagues there are two basic implicit theories of intelligence: the incremental and the entity theory. Incremental theories of intelligence reflect beliefs that intelligence and ability can change and increase with time and experience. In contrast, entity theories of intelligence reflect beliefs that intelligence and ability are fixed, stable and unchanging.

According to the theory, if pupils have en entity theory of intelligence and believe that their ability is generally stable, then they will most likely adopt a performance goal when engaged in a task. Because of their belief that they will not be able to increase their ability or intelligence over time, these pupils will be most concerned with how their performance is evaluated, how it compares to

[1] Confidence (perceived level of ability) A distinction is made between perceived current ability (perceived level of current skill) and potential ability (perceived capacity to acquire new skills). Perceived current ability was manipulated to be high or low. Perceived potential ability was manipulated to be high and constant across all condition.

others, and with trying to best others. In contrast, pupils holding an incremental theory will expect that their ability can be improved and are more likely to be focused on mastery goals, such as trying to increase their competence and judging their success at reaching this goal, by using criteria focused on self-improvement rather then social comparison.

As already mentioned, most of the research conducted by Dweck and her colleagues is based on experiments within controlled laboratory environments. In a study by Henderson and Dweck (1990), however, children were tracked from the sixth grade over the transition to junior high school. The aim of this study was to test the hypothesis that when the academic demands and task difficulty increase and the evaluation becomes more stringent children's goal orientation should begin to predict their achievement. On the basis of measures on children's theories of intelligence (entity or incremental) and their confidence in their intellectual ability (high or low), four groups of children were established in this study. Then, given the grades they earned in seventh grade, the question was: How well did the groups compare with what would be expected on the basis of their past achievement (i.e. from grade six).

The overall finding of this study was that pupils who had been high achievers in sixth grade remained so, and many of the relatively low achievers became high achievers. In particular, many incremental theorists with low confidence who had not done well in the past were found to receive many of the highest grades. Entity theorists who had been low achievers in the past remained so, and many who had been high achievers in sixth grade were found among the lowest achievers. Among the latter were many high-confidence entity theorists. This group of pupils showed the most pronounced decline of any group.

Dweck (1991) summarised these findings by suggesting that the two implicit theories of intelligence which children hold appear to orient them towards different goals, which, in turn, set up and organise different patterns of behaviour. Of importance is the suggestion that although these theories, goals and behavioural patterns are initially unrelated to actual ability (i.e. intelligence), they begin to predict the acquisition and display of ability over time.

The findings of another study by Dweck (Dweck & Elliott, 1983) suggest that younger children generally have an incremental theory of intelligence, whereas older children (about 10-12 years old) will start to develop more entity-like theories of intelligence. These beliefs are thought to become more stable over time (i.e. from the age of 12 or 13 years).

The social and moral domain

Although this goal orientation theory has primarily been developed to understand behavioural patterns in achievement situations, according to Dweck and Leggett (1988), the model may also be used to explain behavioural patterns in other domains, such as the social context and the moral domain. With respect to the social domain, the model predicts the presence of adaptive mastery oriented and maladaptive helpless responses to difficulty in social situations (e.g. rejection and conflict); that these responses reflect the social goals individuals are pursuing in social situations; and that these goals are linked to the individuals' theories of their attributes as either fixed entities or malleable qualities (see Table 6).

Table 6. Model of social motivation.

THEORY OF INTELLIGENCE	GOAL ORIENTATION	PERFORMANCE	BEHAVIOUR PATTERN
Entity (Social/personality attributes are fixed traits)	Performance (Goal is to gain positive judgements and avoid negative judgements of social attributes)	High	Mastery oriented (Seek challenge; high persistence)
		Low	Helpless (Avoid risk; low persistence)
Incremental (Social/personality attributes are malleable qualities)	Learning/development (Goal is to increase social competence, develop relationships	High or low	Mastery oriented (Seek challenge; low persistence)

From *Goals: An Approach to Motivation and Achievement* by E. S. Elliott and C. S. Dweck, 1988, Journal of Personality and Social Psychology, Vol. 54, No. 1, 5-12.

Note that when a child is focusing on a learning/development goal, the child is hoping, among other things, to develop new relationships, or to expand social horizons and social experiences, or to master a new social task. The learning goal in the social domain not only includes the development of one's own social skills, but also the development of relationships with others. According to Dweck and Leggett (1988) it might thus be more accurately called a "development" goal (op. cit., p. 265).

According to Dweck and Leggett (1988), a study of Goetz and Dweck (1980) provides clear evidence for the impact of motivational patterns in social situations. In this study, Goetz and Dweck (1980) documented helpless and mastery oriented responses with children facing problems, such as rejection by peers,

which are analogous to the responses found by Diener and Dweck (1978) in achievement settings.

Do children's social goals predict their motivational patterns? Although there is no direct evidence linking goals to specific behavioural patterns, Renshaw and Asher (1983) and Taylor and Asher (1985) have begun to link the goals children pursue in social situations to their sociometric status (i.e. their popularity with peers). The consistent finding in their research is that children of low sociometric status are more likely to formulate or endorse "avoidance" goals (i.e. performance goals in which the concerns centre around avoiding negative outcomes) (cf. Elliot & Harackiewicz, 1996; Niemivirta, 1996).

A summary of Dweck's goal orientation theory

On the basis of the results presented above we may conclude that in contrast to what Dweck and her colleagues label as "mastery oriented" children, those who are labelled "helpless oriented" children seem to avoid challenges in school and to give up easily when meeting difficulties while working on school tasks. These children seem, in addition, to have negative feelings and views of themselves and their ability when they meet obstacles in school. "Mastery oriented" children, on the other hand, seem to persist in the face of obstacles and to seek new, challenging experiences in school and while working on different school tasks. These children seem in contrast to "helpless oriented" children to have positive views of their competencies and abilities when meeting difficulties in school. According to the above goal orientation theory, this approach towards themselves and their abilities makes them task-oriented and resilient in the face of difficulties because they are confident and enjoy challenges.

The style of "helpless" or "mastery" oriented behaviour that these children are showing is not related to intelligence. The "helpless" or "master" style is to be seen rather as a way of viewing oneself and one's capacity to be effective in the world of things and people. The studies of Dweck and her colleagues suggest that children showing a "helpless orientation" pursue performance goals through which they seem to seek to establish their ability and avoid showings of inadequacy. These children seem in addition to view achievement situations as tests of their competence. Children showing a "mastery orientation", in contrast, are found to pursue learning goals in which the problem-solving tasks provide just one more opportunity to acquire new skills. With respect to social situations, when facing problems and conflicts in school (such as rejection by peers but also by others, such as teachers), in contrast to children showing a "mastery" style,

children showing a "helpless" style seem to respond with a maladaptive behavioural pattern.

Even though Dweck's goal orientation theory advocates the pursuit of single goals (i.e. mastery or performance) the importance of linking children's mastery or performance goals to the social situations in which pupils are involved in school is thus emphasised. So far the discussion indicates that the adoption of performance goals is undesirable because of the negative consequences of such goals. However, performance goals are not always linked to maladaptive patterns of behaviour. Or as Dweck and Leggett (1988) expressed it:

> Although we have been emphasising the vulnerability created by an orientation toward performance goals over learning goals, it is essential to note that there are also adaptive performance concerns. It is often important for individuals to evaluate their abilities or to gain positive judgements of their competence. Indeed, sometimes that may be a prerequisite to the successful pursuit of learning goals: Obtaining an objective diagnosis of strengths and weaknesses may be a necessary step in the learning process, and earning the positive judgement of those who control important resources may be a necessary step in one's pursuit of skills and knowledge. Thus adaptive individuals effectively co-ordinate performance and learning goals. It is when an over concern with proving their adequacy (to themselves or others) leads individuals to ignore, avoid, or abandon potentially valuable learning opportunities that problems arise. It is also important to reiterate that when confidence in ability is high, performance goals can produce mastery-oriented behaviour, and they have undoubtedly fuelled many great achievements (p. 260).

Unresolved issues within goal orientation theory

In the goal orientation theory of Dweck and her colleagues mastery and performance goals have been conceptualised as opposite ends of one continuum, thereby suggesting that individuals are pursuing either mastery or performance goals (see also the goal orientation theory of Nicholls, 1979; 1984). However, in this theory, a "helpless" pattern of behaviour will emerge only if pupils have a performance orientation and low confidence in their intelligence (see Table 5). If pupils have a performance orientation but high confidence in their intelligence then a performance orientation is expected to lead to an adaptive pattern of behaviour like seeking challenges in school and showing persistence in face of difficulties in school characteristic for a mastery orientation.

The vague distinction between maladaptive performance concerns on the one hand and adaptive performance concerns on the other causes a great deal of confusion in contemporary literature on goal orientation, such that it has recently been suggested that the performance component in Dweck's theory should be divided into two independent components - an approach and an avoidance component, respectively (Elliot & Harackiewicz, 1996). However, according to Niemivirta (1999a), instead of dividing the performance component in two independent components, it would make more sense to assume that the ability-related concern underlying the performance orientation may manifest itself in two different ways depending on its psychological function. That is, that the ability-related concern is self-enhancing when the purpose is to look competent, and self-protective when the goal is to avoid looking incompetent (see also Skaalvik, 1997). The avoidance orientation is, however, also defined in different ways by different theorists (e.g. Meece, Blumenfeld & Hoyle, 1988; Nicholls, Cheung, Lauer & Patashnick, 1989).

In summary, there is a tension here even among the goal orientation theorists themselves in how to conceptualise goal orientations and a performance goal orientation, in particular. The different ways of conceptualising the two general goal orientations have, however, resulted in different ways of measuring them. As already mentioned, in the goal orientation theory of Dweck, mastery and performance goals are conceptualised and measured as opposite ends of one continuum. Research by Meece and Holt (1993) and Nicholls and colleagues (Nicholls, Cheung, Lauer & Patashnick, 1989), on the other hand, have demonstrated that mastery and performance goals can be orthogonal to one another and that it is possible for individuals to have a mixture of both mastery and performance goals (i.e. multiple goals) that they pursue simultaneously.

Besides the disagreement among goal orientation theorists about the conceptualisation of goal orientations, there is also disagreement on the issue of whether a goal orientation is more situated and contextual or if it is more of a personal disposition or individual difference variable. A more situated view would imply that characteristics of teachers and classrooms will have a stronger influence on pupils' goal orientation (see Ames, 1992), while in a more individual difference view it would be harder for teachers to change pupils' goal orientation. Most contemporary studies on goal orientations claim to be based on the situated view (Pintrich & Schunk, 1996). A goal orientation in Dweck's goal orientation theory is, in contrast to most goal orientation theories, a personal characteristic, given the assumptions of children's beliefs about intelligence.

Table 7. Mastery goal orientation and other motivational and cognitive outcomes.

DEFINITIONS/OUTCOMES	MASTERY GOALS
Goal definitions	
Success defined as:	Improvement, progress, mastery, creativity, innovation, learning
Value placed on:	Effort, attempting challenging tasks
Reasons for effort:	Intrinsic and personal meaning of activity
Evaluation criteria:	Absolute criteria, evidence of progress
Errors viewed as:	Informational, part of learning
Outcomes associated with different goals	
Attributional patterns:	Adaptive, failure attributed to lack of effort, outcome is seen as contingent on personal effort
Affect:	Pride and satisfaction for effortful success
	Guilt associated with lack of effort
	Positive attitudes toward leaning
	Intrinsic interest in learning
Cognition:	Use of "deeper" processing strategies
	Use of self-regulatory strategies including planning, awareness, and self-monitoring
DEFINITIONS/OUTCOMES	PERFORMANCE GOALS
Goal definitions	
Success defined as:	High grades, better performance than others, higher achievement on standardised tests, winning at all costs
Value placed on:	Avoiding failure
Reasons for effort:	Demonstrating one's worth
Evaluation criteria:	Norms, social comparison with others
Errors viewed as:	Failure, evidence of lack of ability or worth
Outcomes associated with different goals:	
Attributional patterns:	Maladaptive, failure attributed to lack of stable ability
Affect:	Negative affect following failure
Cognition:	Use of more surface or rote learning strategies
Behaviour:	Choice of easier tasks
	Less willing to take risks, try new tasks
	Lower levels of achievement

From *Motivation in Education: Theory, Research and Applications* by P. R. Pintrich and D. H. Schunk, 1996, Prentice-Hall, Inc. Pintrich and Schunk (1996). Based on material drawn from Anderman and Maehr (1994), Ames (1992b), and Maehr and Midgley (1991).

However, regardless of this unresolved issue in goal orientation theory, goal orientations have been found to exert a great deal of influence on a number of motivational outcomes. The relations of the two general goal orientations to other motivational and cognitive variables are summarised in Table 7. Given the unresolved issue of how to conceptualise mastery and performance goals caution should be exercised in how these results are interpreted and generalised.

CONSIDERATIONS

As stated already, the purposes of the present investigation have their origin in my work with analysing the reasons as to why all children in Swedish schools learn English as a foreign language and how different reasons for learning English relate to achievement in English (Giota, 1995). One of the questions that I asked myself during that work and afterwards when I started to work on the present investigation concerns children as human beings and their actions in the adult world. Are children to be evaluated and studied according to adult criteria or are they to be considered for themselves? I believe that the answer that we will give to this question as researchers will lead us to conduct completely different studies.

In the present investigation, children are regarded as competent, active and subjective (Eckensberger & Meacham, 1984). This assumption implies that children are able to regard themselves, their strengths and limitations and their own goals reflectively in relation to the forces acting on them and the goals, demands and expectations set by others (e.g. teachers, parents, peers) within the context of their own actions.

The actions that children carry out in school and elsewhere have been regarded as driven by needs, wants, wishes or desires. In action theory, needs, wants, wishes or desires are thought to constitute the individual's motive to act which, in turn, is thought to determine the personally relevant goals that the individual will set up and try to attain with his actions. Seen from this perspective, the actions that children are carrying out in school and elsewhere are to be regarded as based on their own good reasons. That is, their own motives and goals (Hollis, 1977).

In the present investigation, children have been regarded as being aware of their own motives and goals (Piaget, 1981) and to set up action plans regardless of the cause for their goal appraisal. However, being aware of a motive and a goal does not necessarily have to imply that children are aware of underlying or

subconscious motives (i.e. the cause of the need, wish, want or desire) in the Freudian sense. Awareness here refers to being aware only of the need, wish, want or desire concerning certain personally relevant goals and to carry out actions according to these goals.

Having a motive and a goal and being aware of one's own motives and goals implies that children are also aware of the means of reaching their goals or that a particular goal may be used as a means for reaching other goals. The point here is that children have some ideas of the different action-steps to be taken in order to reach intended outcomes. Note that "means" or "strategies" refer to the idea of enacting a personal goal (i.e. the intention to act), whereas "action-steps" refer to acts which are the actual operations that children are carrying out in school and in everyday life to reach their goals.

Children's acts are taking place within a specific socio-cultural structure which is also characterised by semantic rules (von Wright, 1976). These rules as well as other kinds of external features in the present context are expected here to restrict children's choice of actions. For example, according to Wentzel (1989), pupils' personally relevant goals and the actions that they are carrying out in school in order to attain these goals contribute to their academic success only if these goals and actions match the intellectual and behavioural expectations as well as motivational requirements of the classroom.

However, central to the present investigation is the belief that children who are aware of their own motives and goals and able to reflect upon their strategies to attain these goals will be better prepared to act and more resistant to negative influences from the environment. Here children's self-defined possibilities and constraints for attaining their goals (see opportunity structure, Heckhausen, 1991) or their experience of autonomy and control over their own actions (Hollis, 1977) is thought to be of crucial importance for children in order to act independently in relation to the social environment, to create and to realise their own personal goals and to evaluate the effectiveness of their actions on the basis of their own (subjectively) good reasons to attain these goals (Oppenheimer, 1991a). As already mentioned, when children experience that they are not autonomous in relation to the social environment their own motivation to act will be diminished (Deci & Ryan, 1985, 1991; Ames, 1992).

These assumptions concerning motivation imply that children have the capacity to reason and that they can take responsibility for their actions and can be contrasted with conceptions of children as possessing no reason, being

irresponsible, supposed to learn everything from grown-ups and having to adapt to their projects or aims. The question is, however, if children's own reasons to act can be considered as authentic and totally autonomous. Or, should we consider children's thoughts, perceptions, beliefs, goals and experiences as reducible to adult influences, as imitations of the way adults conceive the world?

In my opinion, if one thinks that children's constructs are completely determined, or as Reese and Overton express it that the knower "plays no active role in the known, and inevitably apprehends the world in a predetermined way" (op. cit., 1970, p. 133, the mechanistic model of man), I can not see any point for why we would be interested in studying them. Expressed differently, such an assumption implies that children's perceptions, knowledge and ideas of reality and themselves in this reality would be a reflection of our adult view of the world and our way of conceiving children, their skills and competencies. Seen from this perspective, studying children according to adult criteria is completely adequate. On the other hand, to think that children's constructions of reality, as well as their perceptions of themselves as being skilful and competent or not, are completely autonomous is to forget that the social situations they engage in and the different roles that they are expected to play, although they are not totally determined by adults, are defined principally by adults (Hollis, 1977).

On the basis of these considerations, in the present investigation children's personal development, their motivation and learning in school have been regarded as both construed and directed by themselves and as a product of their interactions with their socio-cultural context (Brandtstädter, 1997, 1998). Or as Reese and Overton (1970) express it, while human activity and behaviour is originating from within the organism, they "gain their meaning, their function, from the whole in which they are embedded" (Reese & Overton, 1970, p. 133), or "while the inherent characteristics of activity and organisation result in the knower being an active constructor of the known reality, the world, as known, is a product of the interaction between the active knower and the things in-themselves" (op. cit., p. 134). Seen from this perspective, children's thoughts, perceptions, beliefs, goals, actions and behaviours hence cannot be considered aside from the environment in which they are embedded.

Considering the fact that children's actions are taking place within the social environment of the classroom, the goals that children will set up and try to pursue in school can never be only cognitive or academic in nature (cf. goal orientation theory, e.g. Dweck & Leggett, 1988), but are multiple goals (i.e. a combination of academic goals and social goals) (Wentzel, 1989). Learning in

school is thus not only a process that takes place within children but also in their positive interactions with teachers and peers (e.g. peer sharing of materials, exchanging help with assignments or learning from and with each other) (see also Wentzel, 1989).

However, considering children's thoughts, perceptions and beliefs as well as their goals and actions does not imply that these are the most or the only important things which are in the study of children. One way of dealing with the methodological issues concerning the study of children is actually to abandon a dualistic perspective that often prevails in adult reasoning in which children are conceived as being immature or mature, either intrinsic or extrinsic motivated, striving for either mastery or performance goals, having actions based on reasons or emotions, or being either completely autonomous constructors of the known or products of socio-cultural influences and constraints. If one rejects these oppositions, then it becomes "natural" to study children as they are (i.e. as multi-dimensional human beings) or as any other (social) group with its own needs, wants, wishes and goals as well as its own responsibilities, rights and obligations.

These theoretical and methodological considerations led me to find ways to measure pupil motivation as a complex and multi-dimensional construct and to test theoretical formulations of the concept of goals and motives and their relation with achievement.

CHAPTER 3

METHOD

The first purpose of this investigation is to study how 13-year old pupils perceive school and education in Sweden and what kind of own reasons (i.e. motives and goals and thus motivation) they have for going to school. The second purpose is to investigate the relationships between different kinds of reasons (i.e. general categories of motives and goals and thus different types of pupil motivation) for going to school and academic achievement.

In the present chapter, the procedures of investigating these purposes, the research design, the participants and the reliability and validity of the measuring procedures are introduced and discussed.

DESIGN

In the empirical studies involved in the present investigation use is made of data collected within the framework of the ongoing Swedish longitudinal project "Evaluation Through Follow-Up" (henceforth, abbreviated as the ETF-project). In close co-operation with Statistics Sweden, the ETF-project has since its start in 1961 followed up nationally representative samples each comprising approximately 10.000, 10- and 13-year-old children born in 1948, 1953, 1967, 1972, 1977, and 1982 (for a review see Härnqvist, 2000). The general aim of the ETF-project is a continuous evaluation of the Swedish school system. The more specific purposes are:

- to find out in what way geographic, social and psychological factors affect educational and vocational careers and to discover what changes the Swedish educational reforms have brought about in these respects, and
- to provide a basis for studies concerning the importance of various demographic factors for changes in aptitude and achievement, both within a cohort of pupils at different ages and between different cohorts tested at the same age-levels.

Below an overview of the different types of data collected within the framework of the ETF-project are presented. Basic data are collected in grades 3 and 6 (i.e. when the pupils are approximately 10- and 13-years old) for each pupil cohort, while follow-up data are collected at later points of time.

Basic data:

- Administrative data from the schools, such as grades, school class, school marks in different subjects (if available), achievement test scores (if available)
- Information about father's and mother's education and occupation
- Scores from verbal, inductive and spatial ability tests (identical in all cohorts)
- Questionnaire responses from pupils on school adjustment, interests, educational and occupational plans, etc. (varying between cohorts)
- Questionnaire responses from parents on similar items (from the 1967 cohort and on, varying between cohorts)
- Questionnaire responses from schools and teachers on teaching and on class and school characteristics (from the 1982 cohort and on)

Follow-up data from within the school system:

- Administrative data from the schools, similar to the basic data (yearly)
- Questionnaire responses from pupils the year after the completion of compulsory school, similar to the basic data (from the 1967 cohort and on, varying between cohorts)

Follow-up data from outside the school system:

- Questionnaire responses about adult education (only in the 1948 cohort)
- Questionnaire and interview responses at the age of 32 about education, occupation, confidence in own capabilities, etc. (only in the 1948 cohort)
- Scores from military classification tests (only men in the 1948 and 1953 cohorts)
- Excerpts from the records on study finance (for the older cohorts, only temporarily available)
- Excerpts from the register of higher education (for the older cohorts)

- Excerpts from the census and income register (for the 1948 and 1953 cohorts)

One of the biggest advantages of using data collected within the framework of the ETF-project is that besides the issues to be explored in this investigation, also the study of developmental trajectories over longer periods are possible. Accordingly, although this investigation is focused on pupils between the ages of approximately 13 to 15 year old, the longitudinal design of the ETF-project permits follow-up studies over a period of 10 years (i.e. data collected from the pupil cohort participating in this investigation from their age of 9-10 and up to the age of 18-19). Issues to be explored by following this pupil cohort over a longer period of time will be introduced in the general discussion part of the present investigation.

SUBJECTS AND MATERIALS

The pupils involved in the present investigation are born in 1982. During the Spring semester of 1995 they were in grade 6 in the Swedish compulsory school where they were given a test battery consisting of three ability tests (an inductive, a verbal and a spatial; see Svensson, 1971), a standardised achievement test in mathematics and a questionnaire. In addition, at the end of the spring semester in the 8th grade (i.e. 1997) course grades were collected by Statistics Sweden. The data collection in March 1995 also involved the parents and the teachers of this pupil cohort (see basic data above).

In this investigation, the open-ended question "Why do all children in Sweden go to school" (Write your own reasons), which has been included in the ETF project's pupil questionnaire, is in primary focus. The number of pupils who answered the open-ended question is 7391 out of 7607 or 97% of the total number of pupils who received the pupil questionnaire. The results of a content analysis of the pupils' responses to the open-ended question are presented in Chapter 4. These results are then related to achievement in mathematics (data collected in grade 6 in Swedish comprehensive school) in Chapter 5 and course grades obtained by the pupils two years after the first data collection (i.e. in grade 8).

Before moving to these studies the advantages and disadvantages of using an open-ended question as a method to measure pupil motivation and the reliability and validity of this procedure will be discussed.

CHOICE OF METHOD

The present investigation is based on the general assumption that pupil motivation is a theoretical construct for which I had to find a concrete representation (e.g. a variable) in order to be able to measure it. According to Judd et al. (1991) representations such as variables can never be synonymous with the construct to be measured because any single construct has many different possible representations, which can only be interpreted as partial representations of the construct.

In the present investigation, pupil motivation is measured by the use of an open-ended question (see also Giota, 1995). There are several reasons for using this kind of method. The first concerns the objective of the investigation which is to elicit information about how 13-year old pupils perceive school and education in Sweden (i.e. their knowledge, thoughts and beliefs about school and education as a social institution). I believe that permitting pupils to answer a question which measures these aspects of cognitive and motivational behaviour in an unconstrained way instead of forcing them to choose one of several statements that all could be more or less unsatisfactory to them is of fundamental importance for the validity of the present investigation. Second, because of my specific aim to explore the full range of reasons (i.e. motives and goals) which motivate pupil behaviour in Swedish schools and, thus, not only pupils' academic motives and goals as studied within intrinsic and extrinsic motivation and goal orientation research.

Open-ended questions also have disadvantages, however. The most important is the difficulty of adequately coding the responses (Judd et al., 1991). Responses to open-ended questions may be totally incomprehensive or irrelevant with respect to what is requested. The responses are, in addition, to be considered as functions of not only the respondents' knowledge about or awareness of the issue at hand but also general verbal fluency, communicative style, and other factors.

Another problem connected to open- as well as closed-ended questions concerns the level of specificity of the questions. According to Judd et al. (1991) general and specific questions often will not obtain the same responses. Specific questions are, however, expected to obtain more valid responses than general ones. On the other hand, responses to seemingly specific questions may reflect general attitudes or opinions because specific questions require the respondent to have some specific knowledge about the issue, or to be aware of his own attitudes. In this investigation, one challenge was, thus, to formulate a question to

measure pupil motivation that would not be so general as to be meaningless to the pupils or give irrelevant information and not too specific to be answered in a valid way.

The first step in developing such a question was to formulate a so-called "why-question". The answers to why-questions are in general expected to involve personal or educational experiences, beliefs, interests, goals, attitudes and values (Judd et al, 1991). This assumption is in line with the definition of the construct of motivation adopted in this investigation. That is, that motivation is a complex and multi-dimensional phenomenon which besides goals comprises a variety of motivational constructs such as affective (e.g. values and attitudes) (e.g. Wigfield & Eccles, 1992; Rokeach, 1979), cognitive and volitional (e.g. thoughts, perceptions and beliefs) (e.g. Piaget, 1981; Nicholls, 1984; Dweck & Leggett, 1988; Maehr, 1984). According to different theoretical approaches to motivation these constructs are closely related, interrelated or interdependent, or are always interacting in order to determine motivation (Pintrich & Schunk, 1996).

As noted in the theoretical part of the present investigation, in research conducted by Ford (1992) why-questions are used to measure multiple goals (i.e. affective, cognitive and social goals) that individuals try to pursue in general. In research conducted by Dweck and her colleagues (e.g. Dweck & Leggett, 1988) why-questions are in contrast used to investigate the issue of why individuals strive for some particular goals (i.e. learning or performance goals) and how they approach these goals. This implies that although in both cases why-questions have been used to measure the construct of goals, the answers to these questions refer to different aspects of goals. That is, in Ford's case they refer to the content of goals, while in Dweck's case they refer to the goal processes. This variety of possible frames of reference for the responses to a why-question is an additional illustration of the difficulties of coding open-ended responses in ways that permit comparisons across respondents and across empirical studies.

In the present investigation, I decided to use a general why-question formulated as "Why do all children in Sweden go to school?" (Write your own reasons). There are several reasons for formulating this general question instead of a specific one. Most important, asking the pupils a more specific question was considered to likely lead to responses that fail to take into consideration the future-oriented nature of education and the future goals that pupils are trying to pursue in school (Nurmi, 1993; Malmberg, 1998). In short, asking a specific why-question was considered as less adequate for capturing the variety of concerns that motivate pupil behaviour in school over time.

Asking 13-year old pupils to give their own reasons as to why all children in "Sweden" are going to school was expected to result in statements reflecting their beliefs about the socio-economic and the socio-cultural features of the Swedish society in which school and education is embedded (e.g. the labour market situation, the educational tracks, possibilities for employment, gender-roles) (Buchmann, 1989; Hurrelmann, 1993). These are factors which are assumed to influence the decisions that pupils have to make with respect to own future goals and their actions to reach these goals (Malmberg, 1998).

VALIDITY

From the above discussion it follows that the open-ended question that I created in order to measure pupil motivation can never measure only the construct that I intend to measure, but also things that I do not want to measure. In the literature, constructs that we do not want to measure refer to systematic or non-random errors of measurement (Carmines & Zeller, 1990). Examples of non-random errors of measurement are a general test-taking anxiety, motivation to do well on the day the question was administrated, ability to read and write or ability to understand instructions. Besides non-random errors of measurement there are random errors of measurement however. Examples of such errors are fluctuations in mood or inability to concentrate on the day the question was administrated, because one may lack sleep or not feeling well, and so on (Carmines & Zeller, 1990). The effects of random error are totally unsystematic in character, implying that a measurement that is affected by random error will sometimes overweigh a particular object and on other occasions underweight it. Unlike random error, non-random errors have a systematic biasing effect on measurements. Accordingly, the responses to the question "Why do all children in Sweden go to school?" (Write your own reasons) contain both non-random and random errors of measurement.

According to Carmines and Zeller (1990) non-random error lies at the very heart of validity (p. 14). Or "matters of validity arise when other factors – more than one underlying construct or methods factors or other unmeasured variables – are seen to affect the measures in addition to one underlying concept and random error" (Althauser & Heberlein, 1970, p, 152, in Carmines & Zeller, 1990). That is, invalidity arises because non-random error prevents indicators from representing the theoretical construct (in our case pupil motivation) they are intended to represent. Consequently, the issue here is not whether the responses

to the open-ended question contain non-random and random errors of measurement or not, because as Carmines and Zeller put it the measurement of any phenomenon always contains non-random error and random error to a greater or lesser degree (op. cit., 1990). The question is rather how big these errors are and the influence of non-random error in particular.

A variable that primarily measures the construct of interest with minimal contributions from constructs that we do not wish to measure is to be considered as having construct validity (Carmines & Zeller, 1990). According to Carmines and Zeller (1990) both criterion validity, content validity and face validity have been found to have limited usefulness for assessing the validity of empirical measures of theoretical constructs employed in the social sciences (see also Messick, 1980, 1981). Consequently, the attention has been focused on construct validity, which is by necessity theory-laden. Accordingly, a researcher can assess the construct validity of an empirical measurement if the results can be placed in a theoretical context. In short, if the performance of the measure is consistent with theoretically derived expectations then it is to be concluded that the measure is construct valid.

According to Judd et al. (1991) validity is also demonstrated when the empirical relationships observed with a measure match the theoretical postulated nomological net of the construct, defined as the set of construct-to-construct relationships derived from the relevant theory and stated at an abstract, theoretical level. This kind of validity is a form of construct or convergent validity pointing out that theory may tell us that other constructs (measures), although not identical, should be correlated (i.e. measures which are theoretically expected to correlate), implying that such constructs should also furnish evidence of a measure's validity.

In short, construct validation is thought to require a pattern of consistent findings, involving different researchers using different theoretical structures across a number of different studies. Consequently, in order to find support for the construct validity of the first empirical study, that is, the content analysis and the categorization of the pupil responses to the open-ended question "Why do all children in Sweden go to school?" (Write your own reasons) to be presented in Chapter 4, different strategies have been used.

Face validity

Before testing the construct validity of the open-ended question a try out was conducted with 120 grade-six pupils in spring 1995. This try out was an attempt to test if this question gave any indication of having at least a minimum of face validity. By visiting these pupils in their own classrooms and by asking them what they thought about the open-ended question it emerged that the pupils perceived the question as very interesting, fun to respond to and significant because the question asked for their own opinion in the particular matter. Here, it may be mentioned that this question was the only one with an open response alternative in the pupil questionnaire which otherwise consisted only of closed questions. The pupils said in addition that they answered the question on the basis of their own reasons for going to school. This was because they could not know why other children went to school and had to rely on their own beliefs as they expressed it. On the basis of this kind of statements the question was extended with the request (Write your own reasons). After this try out it was concluded that the formulated question had face validity and could be included in the final data collection of the ETF-project in March 1995.

Construct validity

One strategy of testing the construct validity of the study in Chapter 4 has been to compare the outcomes from the content analysis with research on goals (e.g. Ford, 1992; Wentzel, 1989) and goal orientations (e.g. Dweck & Leggett, 1988). Another strategy has been to relate the outcomes from the content analysis to academic achievement in Chapter 5 and self-evaluations (Giota, a) and then compare the obtained outcomes with research on academic achievement, motivation and the self-concept (e.g. Harter, 1981).

The construct validity of the first empirical study in Chapter 4 has also been tested within the framework of two cross-national comparative studies between pupils in Sweden and pupils in the Netherlands. In these studies how 1300 pupils in the Netherlands perceive school and education and what kind of own reasons they have for going to school were investigated (Giota, b, c) and the outcomes from the content analysis of the responses were related to course grades and self-evaluations and compared to achievements and self-evaluations attained by pupils in Sweden at the same age. About 700 of the pupils in the Netherlands have also completed Wentzel's Goal Questionnaire comprising only closed-ended questions about motivational and self-regulatory processes in school (see Wentzel, 1989).

CODING THE RESPONSES

All pupil responses to the open-ended question have been transferred from the questionnaires to a document file by the author of this investigation and have been copied exactly as they were expressed by the pupils (i.e. with orthographical errors, etc). In the next step, general themes and sub-themes in the pupil responses were identified and established on the basis of a careful reading.

The primary source and frame of reference for the identification and establishment of different kinds of general themes and sub-themes was Murray's taxonomy of needs (1938), Ford's taxonomy of goals (1992) and the goals included in Wentzel's Goal Questionnaire (1989), mentioned above. The reason for using the goals in Ford's taxonomy as well as the needs in Murray's taxonomy is that these are to be viewed as "general energisers" of human behaviour and, thus, as universal.

As mentioned already, the construct of motivation is a complex and multi-dimensional construct which besides goals involves a variety of other interrelated cognitive and motivational constructs (see e.g. the definition of motivation as a function of goals x emotions x personal agency beliefs, in Ford, 1992; the definition of motivation as a function of beliefs about intelligence, in Dweck and Leggett, 1988; the definition of motivation as a function of incentive values, including personal interests for studying, in Wigfield and Eccles, 1992). Consequently, by using an open-ended question to measure pupil motivation the responses to this question will not only map perceptions, thoughts and beliefs about school and education and various personal reasons for going to school (i.e. motives and goals) but also other elements involved in the multi-dimensional construct of motivation. Accordingly, in the content analysis of the pupil responses to the open-ended question a number of other constructs will be introduced. Given the complexity of each of these constructs they will not be discussed in any detail, unless they are of significant theoretical importance with respect to the construct of motives and goals.

Besides Murray's, Ford's and Wentzel's motivation approaches and general principles for conceptualising the content of the different kinds of goals expressed in the pupil responses, a number of other guiding principles for the conceptualisation of other cognitive and motivational constructs related to goals have been used. For instance, considering the relation between mastery and performance goals and pupils' beliefs about intelligence (Dweck & Leggett, 1988; Nicholls, 1979, 1984) thematic components based on beliefs that intelligence is

fixed, stable and unchanging were distinguished from components based on beliefs that intelligence can change and increase with time and experience.

Considering the construct of motives in intrinsic and extrinsic motivation theory thematic components where the motives for engaging in school tasks and activities could be considered as being internal to the pupils were distinguished from components where the motives for engaging in the school content could be considered as externally generated (Gardner, 1985; Deci & Ryan, 1985, 1991; Rigby et al., 1992).

In the Eccles-Wigfield expectancy-value theory of achievement tasks (e.g. Eccles, 1983; Wigfield & Eccles, 1992) expectancies and values have been conceptualised as cognitive beliefs that are related to the conscious decisions and choices pupils make about their achievement. The value construct in this theory of motivation refers to a pupil's response to the question: "Why should I do this task?" Responses to this question are expected to include responses having to do with goals (e.g. "I want to become a doctor"), values (e.g. "I think math is important and/or useful to me") and interests (e.g. "I am interested in math"). In contrast, the expectancy construct refers to the question: "Am I able to do this task?" Expectancy is defined as pupils' actual beliefs about their future expectancy for success, that is, whether they believe they will do well on an upcoming test or some future event. Research by Eccles and Wigfield suggests that higher expectancies for success are positively related to all types of achievement behaviour, including achievement outcomes, choice and persistence.

Considering this theory of motivation, thematic components based on beliefs that school and the tasks and activities to be taught there are important, interesting or useful to pupils were distinguished from components based on beliefs where school and the school content are meaningless, boring or with no use to pupils. In the same way, high expectancies for success with respect to academic school subjects as well as for attaining future goals were distinguished from low expectancies for success with respect to these issues (for studies on the content of pupils' future goals, see e.g. Nurmi, 1991; Malmberg, 1998).

As already mentioned, besides the identification of the variety of reasons that motivate pupil behaviour, the present investigation aims to obtain insights in the ways pupils think about the Swedish education system and the society in which this education system is embedded. Note here that although the education system and the general cultural and societal milieu in which this system is embedded may have a direct effect on the kind of goals that pupils will set up and strive for in

school there is reason to believe that the strongest effect is mediated by the pupils' own perceptions and interpretations of environmental influences (see Wigfield & Eccles, 1992; Sylva, 1994; Andersson, 1996).

In this investigation, how pupils perceive, reason about and the beliefs that they are expressing with respect the education system and the Swedish society have not been analysed in relation to specific theoretical approaches to these concepts. This is because the analysis of this kind of perceptions, thoughts and beliefs requires a more sociological framework. It is also my personal belief that in order to obtain a complete picture of the ways pupils think about education and the Swedish society in which the education system is embedded, their thoughts and beliefs about these realities should not be constrained interpretatively by a priori theoretical frames.

Consequently, besides the approaches to goals mentioned above the content of the pupils' responses themselves functioned as the guiding principle in the identification and establishment of the general themes and sub-themes to be presented in Chapter 4 (i.e. the procedure of inductive coding; Frankfurt-Nachmias & Nachmias, 1992, p. 323; see also Hakvoort, 1996).

DOCUMENTATION OF THE RESPONSES

The identified and established general themes and sub-themes, consisting of specified and detailed descriptions of relevant content characteristics, were recorded in a coding manual which resulted in an unambiguous coding procedure. In the next step each pupil response was reduced into an enumeration of themes and sub-themes which were classified into various predefined categories. The categories were then coded as string variables in an SPSS data file (SPSS 9.0 for Windows). For example, a pupil response such as "To meet friends (theme: social relationship goals, category 1: establishing or keeping friendships), to acquire knowledge (theme: learning goals, category 2: general knowledge) and to get a job" (theme: future goals: category 3: job) was coded as subject number 1: sr_le_j. Note here that these categories are predefined and considered as mutually exclusive or logically independent from each other.

This kind of categorical data is known as multiple-response data and is to be contrasted to single-response data. Using this kind of method to code each pupil response into themes and sub-themes, which were transformed in sets of categories, resulted in a large amount of information. With respect to goals, a

large amount of information about what kind of short- and long-term goals pupils themselves try to pursue in school, what kind of decisions and choices they make about these goals, how fun, interesting, important or useful different kinds of goals are to them, what kind of goal combinations they set up and how they intend to approach these goals (i.e. their strategies) has been obtained.

However, while this coding procedure made it easy to capture the variety of concerns that motivates each individual pupil's behaviour in school, on the other hand, it made comparisons across pupil groups impossible. Therefore, in the next step of the analyses of the data, the total number of themes and sub-themes identified in the pupil responses were coded as numerical variables. This procedure will be presented in more detail in the result sections of Chapter 4.

THE RELIABILITY OF THE CODING PROCEDURE

In the literature, the reliability of the coding procedure depends upon the accuracy with which themes were identified (i.e. the so-called process of unitising, see Holsti, 1969, p. 136). According to Holsti (1969) "reliability is a function of coders' skill, insight and experience, clarity of categories and coding rules which guide their use, and the degree of ambiguity in the data" (p. 135). Holsti also notes that thematic analysis is not an easy task because themes are not "natural units" for which physical guides exist. This fact was actually one of the reasons for my decision to rely on my own judgement and skills in order to identify and code the thematic units instead of using a computer-based content analysis.

In order to evaluate the reliability of the coding procedure the first necessary step was to develop an unambiguous coding system. As one indicator for the reliability of the coding system the degree of agreement between different raters judging the same verbal responses was chosen (i.e. inter-rater reliability).

To compute inter-rater agreement, a randomly selected part of the verbatim transcriptions (5%) was used. By means of the coding manual in this initial step of the analysis of the pupil responses to the open-ended question two independent raters were required to assess if the content of the pupil responses expressed either internal, external or negative/critical reasons for going to school. The inter-rater reliability was established by comparing how each of the randomly selected pupil responses had been assessed by the author of the present investigation and then by the two other raters. Note that each pupil response could be assessed as expressing only one of the three types of reasons for going to school. Total

agreement with rater number 1 was found in 90% of the ratings and with rater number 2 in 88%. These ratings have been considered as being of acceptable reliability. Values of 60% or 70% are normally considered to be the limit for reliable ratings (e.g. Bernardi, 1994).

Note also that the same procedure for computing inter-rater agreement was used to compute the total agreement between me and Dutch researchers who under my guidance collected data on which the two previously mentioned cross-national comparative studies between Swedish and Dutch pupils' reasons for going to school are based (Giota b, c). By using a translation of the coding manual used in the present investigation into English two independent Dutch raters were required to assess whether the sample of approximately 600 Dutch responses in the first study, and two others the sample of approximately 700 Dutch responses in the second study expressed either of the three types of reasons for going to school identified in the responses of the Swedish pupils. The coding agreements between these raters and me ranged from 80% to 90%. In short, in this initial step of analyzing the data, the reliability of assessing each pupil response as expressing either of the three types of reasons for going to school is deemed satisfactory and further analyses of the pupil responses were conducted giving rise to the results to be presented in the coming chapter.

CHAPTER 4

PERCEPTIONS OF SCHOOL

In the next sections, the results of the content analysis of the pupils' responses to the open-ended question "Why do all children in Sweden go to school?" (Write your own reasons) will be presented.

As mentioned already, the number of pupils who answered this question is 7391 or 97% of the total number of pupils who received the question. The total number of themes and sub-themes identified among the pupil responses on the basis of the content analysis is 600. These themes and sub-themes have been coded in a data file (SPSS version 9.0 for Windows) as numerical variables. The second step in analyzing the obtained themes and sub-themes was to count how often each of them occurred among the pupil responses. The tables to be presented in the next sections contain this information. Note, however, that the tables in the next sections display a selection of the main themes and sub-themes central to each motivation category.

RESULTS

As noted in the theoretical chapter, according to the cognitive and social cognitive perspectives on motivation the perceptions, thoughts and beliefs individuals have about themselves in relation to the environment are closely related to their motivation to act in the environment (e.g. Dweck & Leggett, 1988; Ames & Archer, 1988; Maehr & Braskamp, 1986). Given this assumption, the motivation categories to be presented in next concern how pupils perceive, think and reason about school, the adults in school and the context in which school is embedded. Note that the quotations within these categories are displayed exactly as they were expressed by the pupils.

School as a pleasant venture

On the basis of the content analysis of the pupil responses to the open-ended question, we may conclude that some pupils go to school because school is a pleasant venture, or as they express it "is fun". For these pupils school seems thus to exist for their own emotional well-being (cf. Affective goals: Entertainment, Tranquillity and Happiness, in Ford, 1992; Play, in Murray, 1938; Contented pupils, in Andersson, 1996).

- To learn, to meet people and to have fun.

School as a work place for pupils

For other pupils, besides the fact that school and going to school is compulsory by law, school seems to be a work place for pupils, or a place where children are because there is nothing else to do.

- School is like my work place. I go to school in the same way as my parents go to work.
- School is a kind of job for pupils. Otherwise you would be illiterate.
- Because you have to, and because there isn't anywhere else to go.

School as a place of torture

For another group of pupils, school seems to exist only for torturing children, or for making their lives miserable. This group of pupils is very unhappy about their situation in school. This is expressed in statements such as children go to school to "get to know how it is to live in prison," "be plagued to death," or that "school is the worst nightmare of your life".

As a consequence of the situation that some pupils seem to experience in school they may have become "apathetic" as suggested by statements such as "I don't know why I am in school and I don't care either". Others demonstrate an "aggressive" attitude. This is expressed in statements where they are using a lot of swear words.

Considering the content of the statements in this motivation category, we may conclude that for some pupils school has a detrimental effect (cf. To submit passively in Abasement, and to escape from a dangerous situation in Harmavoidance, in Murray, 1938; Unhappy, Invisible and Discontented pupils, in Andersson, 1996; "School-haters," in Andersson, 1999).

- To learn sense, but school wouldn't exist, school is bad.

- Because you have to learn; because without school you cannot get an education, but most of the time I want to quit school.
- Because we have to, I would most of all like to be out in the woods and run so that I can escape from being bullied.
- To be plagued by school.
- To torture us pupils.

Table 8. Frequency of themes and sub-themes concerning perceptions of school.

	Freq.
Sch_1. School as a pleasure venture	
School is good	30
School is fun	21
School is useful	10
	S=61
Sch_2. School as a work place	
Going to school because there is nothing else to do	51
School is boring	27
	S=78
Sch_3. School as a place of torture	
Aggressive attitude towards school	113
Going to school because children are forced to	51
Going to school to be tortured	42
Passive attitude towards school	20
	S=226

In the motivation categories to be presented in the next section how pupils perceive, think and reason about the adults in school and the teacher role, in particular, is presented.

As both Ames (1992) and Blumenfeld (1992) point out, there is very little research on how different groups of pupils perceive and react to different classroom features and teacher characteristics. On the other hand, the role of teacher expectations and behaviours on pupils' academic achievement and classroom behaviour is documented in an enormous amount of studies (Sylva, 1994; Rosenthal & Jacobson, 1968). With respect to pupils' classroom behaviour, research studies point out that teachers are sensitive to individual differences in classroom conduct, they value socially competent behaviour and they spend much time in teaching their pupils how to behave and act responsibly (Doyle, 1986). Other studies point out that teachers consistently report preferences for pupils who are co-operative, conforming, cautious, and responsible rather than

independent and assertive, or argumentative and disruptive (Brophy & Good, 1974; Solomon & Kendall, 1977; Cartledge & Milburn, 1978).

Teachers as being in school for the sake of pupils

The content analysis suggests that some pupils expect the teachers to be in school for the sake of pupils. In particular, teachers are expected to be in school primarily to teach pupils (i.e. their help is necessary for pupils in order to learn), but also to support and help them to overcome different personal problems (cf. Get other to help you, in Wentzel, 1989; Get support, advice or validation from others in Resource acquisition, and being unharmed, physically secure, safe from risk in Safety, in Ford, 1992).

- To get knowledge and help with reading.
- So as to learn and become smarter, so as to get help from the teachers, if they have problems at home they can get help and comfort from the school nurse.

Teachers as being in school for their own sake

In this category, pupils express that they expect the teachers to be in school mainly because school is their work place and state that if pupils did not go to school, teachers and other adults would not have anything to do and thus would not be able to make a living.

- They have to get an education, otherwise they'll be unemployed when they grow up and they also provide jobs for teachers. There wouldn't be jobs for teachers if pupils didn't go to school.

Teachers as being in school to make pupils suffer

In this category, teachers and other adults are not said to be in school either for the sake of helping pupils to overcome intellectual and personal difficulties, or because school is their work place, but mainly to make pupils suffer and seem to be perceived as asserting control over pupils, exerting unreasonable pressure and as unpleasant. This suggests that the interpersonal relationships between pupils and teachers in school may not be good (cf. Interpersonal relations between "school-haters" and teachers, in Andersson, 1999; Teacher-student relationships, in Brophy & Good, 1974).

- Because the x teacher thinks it's fun to see pupils suffer.
- Because there is not enough work for everybody. But it would've been better if nobody could read so that you got out of school and all the fucking teachers.

- Because they have to and because the teachers need to have somebody to whimper at and because you should also learn a little too.
- Because you are forced to go to this damn shit-school, and as if this wasn't enough, the teachers are also of course defect, school is a shit-hole.

Table 9. Frequency of themes and sub-themes concerning the teachers in school.

	Freq.
Teachers_1. Being in school for the sake of pupils	5
Teachers_2. Being in school for their own sake	14
Teachers_3. Being in school to make pupils suffer	20

The results of the content analysis presented thus far suggest that different groups of pupils perceive, think and reason about school and teachers quite differently. That some of them perceive, think and reason about school and teachers mainly from a personal point of view, focusing on the importance of school and teachers for their own well-being and personal development, whilst others perceive, think and reason about school and teachers mainly from the perspectives of others (cf. Social perspective taking and interpersonal understanding, Selman, 1980). While these pupils argue about school and teachers in a positive way other pupils argue about school and teachers from a critical or negative point of view.

In the motivation categories presented thus far pupils argue about school as a social institution, involving social relationships between teachers and pupils on a micro-level. In the motivation categories to be presented in next pupils argue about school in relation to the macro-level of society and the broader institutional functions of school in society. These are often factors that pupils, teachers and other adults are considered as having little direct influence upon, but which influence their lives in school (see Buchmann, 1989; Hurrelmann, 1993; Andersson, 1999).

Accordingly, in the next section what pupils have expressed about why society created school and why society wants all children in Sweden to be in school will be presented.

Economic and material reasons for the existence of school

According to pupil statements, one reason as to why there are schools in Sweden and why all children are going to school is that Sweden is a rich country that can afford to provide all children with schools. Sweden is expected to be able to do so because of the taxes that parents have to pay to the state.

In the pupil responses, one consequence of Sweden being a rich country seems to be that the furnishing and display in Swedish schools as well as the equipment for learning are of high standard, implying that in Swedish schools children learn more or better as pupils expressed it themselves. Another consequence is that children in Sweden are not compelled to work in order to contribute to the material needs of the family like children in under-developed countries and can thus go to school.

In short, in this motivation category the main reason as to why all children in Sweden are going to school seems to be the economic and the material conditions prevailing in the Swedish society.

- Because Sweden has a good economy and can afford to let children go to school.
- Because we are better off, not like other countries like Pakistan where children have to work and can't learn to read and write. I don't think that's fair but there's probably nothing we can do about it.
- Because it's the law that all pupils must go to school for 9 years and because there are school places for everyone. Some countries don't have schools for everyone and in some countries parents need their children to work at home.
- Because Sweden isn't as poor as other countries and parents pay taxes so their sons and daughters can go to school.
- Because you have to and because the State pays child-allowances so we can go through the upper-secondary school as well.

Equality reasons for the existence of school

Another expressed reason as to why children in Sweden go to school is that the state created school because it intends to give every child irrespective of social, cultural, and/or economical background equal opportunities for attaining high education standards and jobs in the future. Or as one pupil put it: "I believe that they want to give everybody a chance to become educated; in that way, nobody will be sorted out on the basis of the colour of their skin, economy, or smartness; I believe that this is good, even though I myself am not so keen on school". Seen from a here-and-now perspective, by making school available for all pupils in Sweden, the state seems to be expected to give every child the opportunity to acquire the same knowledge and reach the same level of knowledge.

In short, in this motivation category the main reason given for why children go to school seems to be that the state wants to provide them with the opportunities to live their lives as equal human beings in a future society.

- So we don't finish up in the same situation as Brazil with millions of pupils on the streets, high unemployment and massive differences between rich and poor.
- Because we want things to be fair and that not just the rich get an education but even those whom don't have so much money. Every child in Sweden should be able to read, write, count and so on.
- So that all pupils whether rich or poor can get the same education. A lot of adults in the world are unemployed because they've never gone to school and can't read or write.

Democratic reasons for the existence of school

Another reason given for why the state gives all children in Sweden possibilities to go to school and learn is that Sweden is a democratic country that strives for human rights by following, among other things, the United Nations and conventions on children's rights. Consequently, going to school in Sweden is not only an obligation (given the compulsory nature of schooling), or something that the state wants all children to do, but also a right, or as one pupil expressed it: "A child's right, which is not something obvious in other countries". This is why parents in Sweden are, according to pupil statements, expected to get some kind of punishment if they try to keep their children away from school.

- Because we are a democratic country and therefore everyone should go to school.
- Everyone is of equal value and all have a right to go to school.
- It is both their responsibility and their right to go to school.
- Because all pupils have the same right to know things.
- Because we all have the same rights and everyone should learn the same things.

Sweden's perceived interest and involvement in issues of equality, solidarity and human rights, including the rights of children is not a "new phenomenon," however, but something with quite a long history. Or as pupils expressed it: We can go to school because people in the past struggled for the issue that we would be able to go to school," or "Sweden has struggled a lot for equality and that is why all pupils must go through the compulsory school".

In short, in this motivation category the main reason given for why children go to school is because they are members of a democratic society that gives them the right to go to school.

Functional reasons for the existence of school

According to other pupil statements, the state is expected to provide all children in Sweden with schools because education fulfils the state's need for well-adapted and effectively functioning adults within the existing (social) order.

In this motivation category the main reason for children going to school is thus because the state needs people with different kinds of knowledge, skills and competencies in order to function well in the future. Seen from this perspective, going to school is a societal duty equally important to every other duty in society (cf. Andersson, 1999). Consequently, pupils in this motivation category may feel that they can make a contribution to society by going to school.

- If you don't learn anything you can't get a job. Sweden can't afford people who don't do anything.
- So as to learn something. The Government hopes to obtain more intelligent youngsters. They've had enough of all the unemployed whom didn't study when they went to school.
- Because its the law because the Government wants everyone to be able to read and write so things will run better in society.
- Partly because it's the law but the main reason is that without an education society would break down. We all have to learn, otherwise nobody would know anything and it would be chaos.
- So you can learn and will be able to get a job. If no one went to school it would be like Africa. Chaos in other words.

Preventive reasons for the existence of school

The reasons in the motivation category presented above are expressed by some other pupils in a reverse order. That is, the reason as to why school exists seems to be perceived by some pupils as something that prevents negative social phenomena such as higher violence or vandalism both in the present and in the future. Seen from a here-and-now perspective, if pupils didn't go to school, or if they played truant, for example, "the police would catch them," as pupils express it themselves "and some kind of punishment would take place".

In this motivation category, going to school in a here-and-now perspective has thus a negative value because it implies that children are not meaningful or useful to society and that society has to put them in school in order to prevent them causing different kinds of trouble. By letting all children go to school society intends to socialise them to its norms, values, beliefs and attitudes and thus to prevent undesirable adult functioning later on in life (Rosental, 1994; Malmberg, 1998).

- So as to learn things for when you're grown up and so that pupils have something to do otherwise they would just hang out down-town all day and there would be more violence than there is now.
- In order to learn things and be able to get a job and so that you don't just hang out in a gang all day. You have to learn to be responsible.
- So that you can get work. If no one went to school there would be much more vandalism.
- Otherwise a crisis would take place in Sweden; pupils would go around in the streets and only make litter, nobody would be able to get a job, or an education and also we can afford to go to school
- Because it's the law and if you didn't go to school you wouldn't get a job and would become criminal. I think that's why it's the law.
- So you can get work and otherwise there would be nothing to do and violence might increase.

Table 10. Frequency of themes and sub-themes concerning the functions of school.

	Freq.
Function_1. Economic and material reasons for the existence of school	
Sweden is a rich and well-developed country	144
Sweden can afford to provide all children with schools	143
Sweden has free school attendance for all children	43
Sweden has enough schools for all children	38
Sweden is not in war	29
Swedish schools are much better	28
Sweden can afford to give every child an education	27
Swedish schools have (nice) books, (nice) environments, and free lunch	22
Swedish schools can teach better	18
Sweden has free school attendance because the parents pay taxes to the state	15
Swedish children do not have to work to support their parents	15
	S=522
Function_2. Equality reasons for the existence of school. Because every child in Sweden shall have the same or an equally good chance	
To get a (good) job	76
To get a (good) education	43
To learn	23
To get a (good) future	17
To acquire the same level of knowledge	13
	S=172

Function_3. Democratic reasons for the existence of school. Because every child in Sweden shall have the same right	
To go to school (a child's right)	43
To get an education	20
To acquire skills	17
To learn things	12
Swedish parents will be punished if they keep their children from school	9
	S=101
Function_4. Functional reasons for the existence of school. Because Sweden	
Gains of having people who are working	43
Cannot function otherwise	26
	S=69
Function_5. Preventive reasons for the existence of school	
Short-term negative social consequences	6
Long-term negative social consequences	5
Children will be punished if they do not go to school	5
	S=16

As can be seen in Table 10, the most frequently mentioned reason as to why children in Sweden go to school refers to the economic and material conditions of today's Swedish society (Function_1). The least frequently mentioned reason is the one where Sweden is expected to put all children in school because it intends to socialise them to its norms, values, beliefs and attitudes in order to prevent undesirable adult functioning (Function_5).

Within intrinsic motivation theory, an important aspect of adapting to classroom life and society is for pupils to understand the norms, values, beliefs and attitudes inherent in them and make them their own or internalise them (Deci & Ryan, 1991). Within action theory, it is emphasised that the reasons for adapting or complying with classroom life and societal values and mores must be the individual's own good and conscious reasons (Hollis, 1977). Here the question is not of how externally motivated reasons for action may become internalised, but how the individual can play different (social) roles in such a way that he can express himself by playing these roles and feel self-determined or autonomous in relation to the environment (cf., the self-determination view of intrinsic motivation, Deci & Ryan, 1985, 1991). Autonomy in action theory refers to the individual's awareness of the environmental features, which are expected to limit his actions and his capabilities to find ways to realise goals and satisfy wants and duties (James, 1890; von Wright, 1976; Heckhausen, 1991; Malmberg, 1998; Wentzel, 1989, 1991a, 1991b).

In the first motivation category to be presented in the next section identification with, acceptance of or compliance to the structural and cultural aspects of Swedish society and the functions of school is displayed. In the second motivation category a rejection of such aspects and the functions of school is displayed.

Acceptanse of school as a social institution

As indicated by statements in the motivation categories presented above, Sweden is expressed by some pupils as a rich country that can afford to let all children to go to school (Function_1) and is also expected to want to give every child in Sweden equal opportunities to acquire an education and a job in the future (Function_2 to Function_4). These kinds of statements seem to parallel some other statements which may be seen as indicating a "gratitude" towards the state for giving such opportunities to children.

Expressed differently, in this motivation category the fact that society provides children with the economic, material, social and pedagogical resources of schooling seems to create a belief in some pupils that they should be "grateful" for that (cf. Andersson, 1999). In the pupil responses this "gratitude" is expressed in terms of an identification, acceptance or compliance to the educational goals set by the state or society and perceptions of school and society as something "good" for children.

- I believe that pupils in Sweden are spoiled, they are screaming 'no' when they are receiving some homework to do, while pupils in Africa are longing for homework and school.
- To get a chance to be able to get a good education and job so they can earn money and one can't help feeling sorry for the pupils in other countries who are not allowed to go to school.
- You have to learn and we should consider ourselves lucky because we are allowed to go to school, which is not the case for all countries.
- If you want to manage yourself then you have to go to school and in Sweden we have money for the schools. Thank you for letting us go to school.
- Sweden invests in pupils and the future. Sweden has also more money to invest than poor countries and I believe that pupils are grateful for that. At least I am.

Rejection of school as a social institution

Other pupil statements indicate a criticism towards the state and the reasons for why the state makes all children to go to school. Statements in this motivation

category express the state or society as negatively effecting pupils' situation in school in a here-and-now perspective as well as causing some direct negative consequences for them in a long-term future perspective (see the "hidden function" of school, Jackson, 1968). For these pupils going to a school that has been created by adults for them seems thus to be totally meaningless. Expressed differently, in this motivation category, the interests of society to put all children in school do not seem to coincide with the children's perceptions of their own interests.

Pupil statements indicate, in addition, that some pupils' perceptions of schooling penetrate beyond the front-stage school scenario (i.e. the knowledge communicative goal of school) and their positions in it as pupils, suggesting that some pupils see their achievement in school as fulfilling the needs of others rather than the needs of themselves. These people seem to be "the rich people," or people that are "in charge" in society and who have decided that all children have to go to school (see Willis, 1977). Irrespective of this, pupil statements in this motivation category express a general almost out of hand rejection of school and indicate an unwillingness to identify with, accept or conform to the educational goals set by the state.

- Yes, I wonder why too, (why go to school). I believe it's totally, bloody unnecessary. What bloody things do you learn here, nothing. They only stuff you with unnecessary shit every bloody day, totally bloody unnecessary. I hope all schools burn down to the ground.
- It is some sly dog who invented it. By the way they don't even know why themselves.
- Because there are some shabby old men who decided it.
- Because the law is written in such a damn way and because some damn idiot invented the school.
- It was some stupid devil who invented the school. This person must have been boring.
- The people who make the decisions or the rules want to have people working for them, so that they are not forced to work themselves. People who, for instance, are building roads and houses. Of course in Sweden you don't want to have any uneducated gypsies. Here in Sweden everybody shall have a chance in the society, therefore, you receive school attendance and we are tortured by sitting and sweating during the lessons in mathematics. But it is bloody stupid that you are cutting down the handicraft in school.
- Because some old codgers want you to slave for them. The more you know, the more you will slave for them.
- To be tortured, to learn how to work for the rich people so that the rich people can become even richer.

Table 11. Frequency of themes and sub-themes concerning acceptance or rejection of school.

	Freq.
Accept_sch. Acceptance of school as a social institution	14
Reject_sch. Rejection of school as a social institution	19

LEARNING AS AN OPPORTUNITY

In the literature, the individuals' own aims or purposes with and reasons for doing different things (such as learning) refer to motives and goals for acting (e.g. Dweck & Leggett, 1988). Within motivation theory and research, aims, purposes or reasons are in general used in order to explain why individuals initiate actions and why they persist in these actions (Zimbardo, McDermott, Jansz & Metaal, 1995).

According to intrinsic motivation theory, the motive or goal for engaging in tasks or activities is inherent in them. This implies that pupils engage in different activities in school for their own sake and because they find them enjoyable, or because they have an intrinsic interest in their content (Pintrich & Schunk, 1996). When pupils engage in different activities in school because of their end results, or when they find them important or useful in terms of their future goals, including career goals, this motive or goal is considered as instrumental or extrinsically motivated (op. cit).

Goal theory, on the other hand, postulates that although some tasks and activities in school may be fun or interesting in themselves, or that pupils work on tasks and activities that have assigned goals, pupils also may have personal goals for these tasks and activities (see Locke & Lathem, 1990). For instance, pupils may work on tasks and activities because their outcomes, or the consequences of their outcomes, may be important or useful to them, or because they want to use particular outcomes as a means or strategy to attain other outcomes (Niemivirta, 1998b). These outcomes, or the consequences of the outcomes, may be situated in a here-and-now perspective, but also in a more distant future. In this perspective, the motive or goal to do so is not considered as being instrumental or extrinsically motivated, however.

Going to school in order to acquire the content that is taught there

On the basis of the content analysis, we may conclude that although school is compulsory for all pupils in Sweden, the main reason many pupils give us to why

they go to school is because they want to acquire the content that is taught here. According to these pupils, the content that is taught in school is good and fun in itself as well as personally important and useful to them. This implies that some pupils find it meaningful to go to school (cf. Contented pupils, in Andersson, 1996).

Table 12. Frequency of themes and sub-themes concerning the content in school.

	Freq.
Children are going to school because they want to Learn the knowledge that is taught there	54
Learning is useful	18
Learning is good	15
Learning is important	12
Learning is fun	8
	S=107
Children are going to school because they want to acquire the specific skills that are taught there	19
Skills are good	16
Skills are useful	10
	S=45
Children are going to school because they want to acquire the specific subjects that are taught there	10
School subjects are useful	10
Languages are important	17
	S=37
Children are going to school because they want to acquire the education that is provided by school	54
Education is important	14
Education is good	7
	S=75

Central to the below motivation category is the notion that when we ask the pupils themselves about their own reasons for going to school their responses to this question refer to two different aspects of motives or goals simultaneously. That is, the enjoyment that they are experiencing when being involved in particular learning tasks in school such as acquiring skills and (at the same time) the importance or usefulness of doing these tasks for their own life (see Locke & Lathem, 1990; Ford, 1992; Niemivirta, 1998b).

In the motivation categories to be presented in next the issue of what kind of personally relevant goals pupils try to attain by engaging in the tasks and activities that take place in school is in focus. The content analysis suggests that

some of these goals are learning goals to be attained in a here-and-now perspective.

As noted in the theoretical part, the pursuit of learning goals is characteristic for a mastery goal orientation. According to the theory, if pupils adopt a mastery goal orientation towards their academic work they should be focused on learning and mastering the content according to self-set standards, developing new skills, improving their competence, trying to accomplish something challenging, and trying to gain understanding and insights (Dweck & Leggett, 1988; Ames, 1992; Maehr & Midgely, 1991; Nicholls, 1984).

Going to school in order to attain different kinds of learning goals

In the present study, the learning goals that some pupils try to attain in school are to acquire general knowledge (Learn_1), knowledge in specific school subjects (Learn_2) and specific skills (Learn_3) and to improve and/or develop one's own knowledge, skills and competencies (Learn_4).

In the pupil responses, the latter reason (Learn_4) is expressed in terms of going to school in order to "feel more confident about one's own knowledge," "understand things better," "become better at things" and "keep oneself informed about current affairs both within the own country and in the world" and/or "increase one's understanding about these things". These goals are thus identical to goals characterising a mastery goal orientation.

Table 13. Frequency of themes and sub-themes concerning learning in school.

	Freq.
Learn_1. Going to school in order	
To acquire knowledge about (important, useful) things	1312
To acquire different kinds of knowledge such as knowledge in basic things	105
To acquire knowledge about the world	21
	S=1438

Learn_2.Going to school in order to acquire knowledge in specific school subjects	313
Mathematics	108
Swedish	99
English	76
Languages	53
Social science	48
Geography	25
Gymnastics	16
History	14
Handicraft	7
Music	6
	S=765
Learn_3. Going to school in order to acquire competence in reading, writing and counting	344
Reading and writing	335
Writing and counting	59
Reading and counting	50
Reading	42
Counting	26
Spelling	24
Speaking	18
Writing	15
Speaking Swedish	11
Understanding	8
	S=932
Learn_4. Going to school in order	
To improve and/or develop one's own knowledge	149
To get to know new things	49
To improve and/or develop one's own skills and competencies	41
To get to know, understand and to keep oneself informed	12
	S=251

According to goal orientation theory, mastery goals and performance goals are closely related to pupils' conceptions of ability (Dweck & Leggett, 1988; Elliott & Dweck, 1988; Nicholls, 1979, 1984). According to Nicholls (1979) some pupils define ability in learning and mastery terms. According to this definition pupils judge their ability in relation to their previous performance and believe that additional effort actually can increase their ability. Hence, pupils view ability and effort as complementary. This conception of ability fosters a task-involved goal orientation (i.e. a mastery orientation) and a focus on mastery and improvement.

Other pupils define ability as relatively stable and judge it in comparison to others and so have the notion of "ability as capacity". In this view pupils see abi-

lity and effort as inversely related, so they base their assessments of ability on how much effort the individual has to expend. The more effort expended, the less ability one has. This view of ability can foster an ego-involved goal orientation (i.e. a performance orientation), where viewing ability as capacity leads to an emphasis on demonstrating that one has more ability than others do.

Research conducted by Dweck and Elliott (1983) suggests that younger pupils generally have an incremental theory of intelligence (i.e. that intelligence is malleable, or that it can change and increase with time and experience) and, hence, opt for learning goals, or a task-involved orientation in Nicholls' terms. Older pupils however (about 10-12 year old) will start to develop more entity-like theories of intelligence, or see ability as capacity (i.e. that intelligence is fixed, stable and unchanging) and, hence, opt for performance goals, or an ego-involved goal orientation in Nicholls' terms.

In short, in Nicholls' as well as in Dweck's research these two different approaches to ability and intelligence are expected to lead children to adopt different goal orientations. The research of Dweck and Nicholls suggests, in addition, that there are developmental and group differences in pupils' theories of intelligence.

In the next section a motivation category where pupils reason about intelligence as well as learning and development will be presented.

Beliefs about intelligence, learning and development

Pupil statements in this motivation category suggest that pupils go to school because they want to increase or develop their cognitive abilities, or as the pupils express it themselves "one's intelligence". In the pupil responses, all children seem to be expected to be able to do this (i.e. increase or develop their intelligence), but the results are expected to be totally determined by their own involvement in schoolwork (i.e. their effort, expressed in terms of practising and working hard in school) and the extent to which they want to continue their studies at higher levels (i.e. upper secondary school and university). Or as a pupil expressed it: "Some pupils are already clever or intelligent but they go to school to improve themselves, but some other pupils are there to acquire some intelligence".

- Because education is important and good for your intellect and the future.
- I believe that all pupils go to school so as to raise their intellect and so as to more easily understand and get to know and understand others and get a job.

Pupil statements in this motivation category suggest that learning and development may be perceived as a process influenced by the pupils themselves. A consequence of this assumption is that learning and development can be directed towards the attainment of one's own interests and personally relevant goals. This process may be sensitive to inner as well as outer influences during the period "when you are still a child," as a pupil expressed it. In adulthood it is expected to be much "more difficult to change things" such as to learn, or to acquire more knowledge. Or as a pupil expressed it: "To get an education and it is easier to learn when you're young. To write, read and learn languages of course".

In the pupil responses, learning and development are not referred to as something that just stops after pupils become adults, however. On the contrary, learning and development are perceived as something that takes place continuously during one's whole life. Or as one pupil expressed it: "To be able to work and be able to read and develop during their whole life".

In short, central to this motivation category is an incremental view of intelligence (Dweck & Elliott, 1983), where intelligence and effort are seen as complementary (Nicholls, 1979), and a view of learning and development as a process. This view indicate a strong trust in human capabilities and effort.

- So as to be able to get a job later on, but it depends on how hard each pupil tries and on how high they aim.
- So they can learn and then have the opportunity to get a proper job. But it's up to each and every pupil how much effort they put in. If you put in more effort you get a better job I reckon.
- Pupils need an education in order to make something of themselves. They go to school to learn and anyone can make it if they try.
- To learn and educate yourself to become what you want to be, those who work hard in school can become whatever they want to, although you have to believe in yourself.

Table 14. Frequency of theme and sub-themes concerning beliefs about intelligence, learning and development.

	Freq.
Int. Going to school in order	
To acquire intelligence	40
To go on with one's development	25
To increase their intelligence	14
To increase their intelligence and to attain own goals by effort	14
To not stay dumb	10
	S=103

The learning goals presented thus far (Learn_1 to Learn_4) are to be conceived as cognitive goals. That is, goals which are to be attained by engaging in learning tasks and activities in school (cf. Cognitive and Task goals, in Ford, 1992). As suggested by the results presented in the above motivation category (Int) these goals are connected to an incremental view of intelligence.

In the next sections, motivation categories where the reason for going to school is connected to a desire to acquire social knowledge and to attain social relationship goals are to be presented.

Going to school in order to acquire and/or develop social knowledge

In this motivation category, social knowledge is expressed in terms of going to school in order to learn how to "understand, listen to, respect, co-operate with, be kind to, and take account of other people". This accords with research on social effectiveness which suggests that acquired social knowledge is applied in interactions with other people to help a person to relate to other people by developing positive social relations (Durkin, 1995). Being socially effective in one's social interactions with other people as a result of acquired social knowledge is referred to as social competence in Greenspan (1981) and Oppenheimer (1989).

- We are here to learn how to socialize with other people.
- To educate yourself and get a good job and so you can learn respect and to get to know other people.
- To learn to write, read, to learn maths and how to co-operate with others.
- So as to get knowledge and get a job as an adult and learn to mix with people and make friends.

Going to school in order to attain social relationship goals

Besides acquiring and/or developing social knowledge, some pupil statements suggest that pupils go to school because of a desire to develop social relationships with peers and adults, to have fun with their friends and to make new friends (cf. Social interaction goals, in Wentzel, 1989; Belongingness in Integrative social relationship goals, in Ford, 1992; Affiliation, in Murray, 1938).

Going to school in order to have fun with one's friends is sometimes referred to as an undesired goal because it may lead the pupil to ignore or abandon potentially valuable learning opportunities (cf. Wentzel, 1989). Seen from another perspective, that some pupils put a higher priority on having fun with their

friends or building new friendships than on learning in school can indicate that the learning content or learning conditions in school are not in agreement with their own needs or interests. In Andersson (1999) one third of all the pupils involved in a large-scale longitudinal study in secondary and upper secondary school who disliked school and perceived themselves disliked by school (i.e. the teachers) stressed that they wouldn't have "survived" school if they hadn't had their friends in school.

In short, having fun with friends in school is a complicated issue that suggests as much about the educational goals of school and the interactions between teachers-pupils as it does about the interactions between pupils. Moreover, to have friends in school implies that pupils have someone to trust and get help from if they have problems and someone who can make them feel secure and accepted.

- So that we can learn to read, write and so on, get a broader set of acquaintances, learn how to get on and to be able to get a job when we grow up.
- Because it is fun and good for you to learn and to meet children of the same age.
- Because they want to learn more or to meet friends, play football or some other sport at break-time.
- They are there to learn, meet their friends, get an idea about how life is and how things are in the world.

Table 15. Frequency of themes concerning social knowledge and social relationship goals in school.

	Freq.
Soc_knowl_1. Going to school in order to acquire and/or develop social knowledge	50
Soc_rel_1. Going to school in order to attain social relationship goals	53

In goal orientation research learning goals have been found to relate to positive self-cognitions (or self-evaluations) (e.g. Dweck & Leggett, 1988). In particular, pupils with learning goals have been observed to plan specific hypothesis-testing strategies and to monitor their outcomes while being engaged in a particular task and to instruct themselves to exert effort or to concentrate and then to monitor their level of effort or attention.

In Ford (1992) as well as in Covington (1992) and Harter (1990) positive self-cognitions or self-evaluations refer to the individuals' goal or competence to

protect their self-worth or the self in general. That pupils are aware of their own cognitive as well as social goals, strengths and limitations and able to reflect upon strategies to attain these goals is, in other words, of crucial importance in order to be successful in their actions and to maintain a positive self-image (Hollis, 1977; Brandstädter, 1984; Piaget, 1950).

Accordingly, the motivation category to be presented in the next section refers to how pupils think and reason about their own abilities, skills and competencies in school.

Self-evaluations with respect to one's learning and behaviour as a short- and long-term personal strategy

The content analysis of the pupil responses suggests that some pupils in school seem to monitor and evaluate their ability in using social competencies as well as their ability to manage things in the academic domain. Or as pupils express it, you go to school because: "It is important that you learn to write, read, and other important things in order to manage in the wide world. Languages are important, but I am very bad at that," "So that they can learn things that they will have great use of in the future for example work. I have difficulties in getting things into my head," or "You are able to learn how to write, read, and count, to talk properly, not to swear, something that I am not so good at" (cf. Doing the very best that you can, in Wentzel, 1989; Positive self-evaluations in Cognitive goals, in Ford, 1992).

Table 16. Frequency of theme concerning self-evaluations as a personal strategy.

	Freq.
Self_eval. Self-evaluation as a personal strategy	8

The motivation categories presented thus far are based mainly on the content of the goals that pupils try to attain in school by engaging in the tasks and activities that take place there. Central to the motivation categories to be presented in the next section is the reasons as to why pupils try to attain these goals. The content analysis suggests that pupils try to attain different kinds of learning and social goals because of their outcomes in a here-and-now perspective, or the consequences of their outcomes in a future perspective (Ford, 1992; Niemivirta, 1998b).

Desired outcomes and consequences of outcomes concerning the goal to acquire general knowledge in school

In the pupil responses, one of the desired outcomes of having acquired general knowledge (Learn_1) in school is that one can become cultivated or knowledgeable, or as a pupil expressed it: "To learn things in order not to wander in the darkness of ignorance". The long-term consequence of having become cultivated or knowledgeable is that pupils can have a good life, or a better future.

- To learn so things will work out well for them in the future.
- So you can learn and then have a better life and a successful future and live comfortably. It's also fun and useful to use your brain.

Desired outcomes and consequences of outcomes concerning the goal to acquire knowledge in specific school subjects

In the pupil responses, one of the most important subjects to be taught in school is languages (see Table 12). With respect to languages, some pupils are going to school especially in order to be able to acquire competence in speaking their own language and foreign languages and English, in particular.

The desired outcomes of having acquired and/or developed competence in speaking languages are that by making use of their language competencies pupils can expand their social horizons and social experiences by communicating, getting acquainted with and understanding other people, both within and outside their own country (see Giota, 1995; Gardner, 1985; Gardner & Lambert, 1972). Note here that these goal and their outcomes are similar to the goals and their outcomes that mastery oriented pupils are expected to try to pursue in the social domain as proposed by the goal orientation theory of Dweck and Leggett (1988).

The short- as well as long-term social consequence of having acquired competence in speaking different languages is that languages in general can bring people together (see Hymes, 1967, 1971).

- To learn different languages so you can talk to all sorts of people in the world so we can get to know each other and learn a job.
- To learn to count, write, read, speak another language, get new friends, get to know other people, understand people and to learn a new language like English. English is very important because abroad nearly everyone speaks English, so if you visit other countries then it is good to know how to socialize with people there.

The pupil responses suggest, in addition, that some pupils go to school because they want to acquire knowledge in another important school subject. This subject is social sciences (i.e. the subject area which refers to history, geography, religion),

which some pupils suggest provides insight into how people lived in the past and live in the present (within and outside their own country), what their country looks like, and what the characteristics of their culture and religion are.

- So as to learn things about the world and to learn to read and write about Sweden's history and even world history so we can get to know what people in other parts of the world have gone through in their lives.
- To learn important things like reading, writing and geography, so we know about the culture and people in other countries.

Desired outcomes and consequences of outcomes concerning the goal to acquire specific skills in school

According to some of the pupil statements, being able to acquire specific skills in school such as reading, writing or counting is expected to result in a personal competence to manage daily life situations in a here-and-now perspective (cf. Management in Task goals, in Ford, 1992; Order, in Murray, 1938). This competence is expressed for example in terms of being able to read books and newspapers in order to keep oneself informed about different events in the world, being able to write letters in order to communicate with friends, or being able to count in order to pay with the right amount of money in the super-market, etc.

Being able to read, write or count is, in addition, expected to have as its consequence that pupils will be able to manage life-situations in a long-term perspective and to manage tasks within future jobs. Or as one pupil expressed it: "If you are working as a secretary in the future, then it is good that you have learned how to read and write in school as a child".

- So you can know what's going on in the world by reading newspapers and books and can keep in touch with friends by letter and so on.
- So as to be able to read letters, count things, pay the right price for things and know a bit about Sweden's history and geography.
- In order to get a good education so as to get the kind of job you want so you can run a home, read newspapers, work out costs as an adult.
- So as to learn to count, e.g. to be able to work out what it costs to buy things and to solve problems at work and such like.

Desired outcomes and consequences of outcomes concerning the goal to acquire social knowledge in school

In the pupil responses in this category, being able to acquire and/or develop social knowledge in school in a here-and-now perspective is expected to result in a general and personal social competence, which can be used within the presently existing context of the classroom. Such a competence is expressed in the pupil

responses in terms of going to school in order to learn to "work in a group" or "interact with the teacher" (see definition of social competence in e.g. Oppenheimer, 1987, 1988, and Wentzel, 1991a, b, c).

A consequence of having acquired and/or developed a general and personal social competence in school is expressed as a belief that it promotes pupils' own social development within broader, and also more future oriented, social contexts (e.g. life). Such a competence is expressed in the pupil statements in terms of going to school in order to be able "to stand on your own two feet" and is expected to help pupils manage "reality out there" or to manage well in life and in the world, in general.

- I think that it's so the pupils will be able to take care of themselves in the future. If they have a good education they can get a good job and its also good if they can learn to believe in themselves and to become a better person in life.

Desired outcomes and consequences of outcomes concerning the goal to improve and/or develop one's own knowledge, skills, and competencies in school

Statements such as pupils go to school because they want to learn "to plan for their own future" or "to get to know things on their own by using books and encyclopedias in school" suggest that some pupils may see their presence in school as being about developing an independence or autonomy with respect to learning and taking responsibility for their own learning (cf. Learning autonomy, in Holec, 1988).

However, a consequence of being able to improve and/or develop one's own knowledge and becoming skilful and competent is that pupils can then help other pupils in a here-and-now perspective by sharing with them their own knowledge, skills and competencies, or teach their own children in a future perspective (see To help or support others in Nurturance in Murray, 1938).

- To learn things and to be better at things so you can also learn others.
- To learn as much as possible so you can get a good job and be able also to teach or help your own children to learn.

Table 17. Frequency of thmes and sub-themes concerning the outcomes and the consequences of outcomes with respect to learning in school.

	Freq.
Cons_1. Desired outcomes and consequences of outcomes with respect to having acquired knowledge, in general	
To prepare for adult life or the future	127
To manage practical things or daily life situations	91
To manage well or better in life	13
To have a good life	12
	S=243
Cons_2. Desired outcomes and consequences of outcomes with respect to having acquired specific skills	
To manage practical things or daily life situations	18
To manage in the future	17
To manage well or better in life	12
To manage in the world	5
	S=52
Cons_3. Desired outcomes and consequences of outcomes with respect to having acquired knowledge in specific school subjects	
To communicate with people by using English	25
To manage practical things or daily life situations by using languages	11
To prepare for adult life or the future	9
To manage practical things or daily life situations	7
	S=52
Cons_4. Desired outcomes and consequences of outcomes with respect to having acquired and/or developed one's social knowledge and competence	
To interact with other people	36
To manage classroom situations	25
To manage practical things or daily life situations	12
	S=73
Cons_5. Desired outcomes and consequences of outcomes with respect to having acquired different kinds of knowledge, skills and competencies	
To develop learning autonomy	10

The findings presented thus far suggest that while some pupils are going to school because it is fun and of implicit value they simultaneously have own goals for the tasks and activities that take place in school. These goals are multiple goals (Ford, 1992; Wentzel, 1989; Peltonen & Niemivirta, 1999). That is, they are both cognitive goals (e.g. to acquire general knowledge, or knowledge in specific subjects), social goals (e.g. to acquire social knowledge, or to meet friends) as well as affective goals (e.g. to experience joy while being in school).

The most important or frequently mentioned goal that can be associated with what pupils have written about why they go to school is to acquire general knowledge. This is followed by the goals to acquire competence in specific skills,

knowledge in specific school subjects and to improve and/or develop their own knowledge, skills and competencies (Learn_1 to Learn_4). With respect to the social goals, the most important or most frequently associated goal is to meet ones' friends or peers and make new friendships. This is followed by the goal to acquire social knowledge.

The content analysis suggests that some pupils want to attain these goals because of their outcomes in a here-and-now perspective. Other pupils mention the long-term consequences of these goals, or their outcomes (Cons1_ to Cons_5). In the pupil responses, the most frequently mentioned long-term consequence concerns acquiring general knowledge in school in order to prepare for the future and adult life.

In the next section, the content of another type of personally relevant goals will be presented. In the literature, this type of goals are termed as distal, long-term or future goals and suggest that adolescents think about future education or training, occupation, partnership and family life as part of their future orientation, a concept which refers to a preparation towards the future and adult functioning (Nurmi, 1989; Malmberg, 1998).

Going to school as a strategy to attain future goals

In the present study, the future goals that some pupils suggest as personally important to them and which are to be attained in a nearest or a more distant future by acquiring the knowledge, skills and competencies that are taught in school are a) to gain access to future education (i.e. to upper secondary school and university), b) to acquire a profession and c) to get a job.

In the pupil responses, being able to acquire the knowledge, skills and competencies that are taught in school is also related to another very specific personally relevant goal, namely, to make choices. Or as one pupil expressed it: "If you don't educate yourself, then you don't have so many possibilities to make choices, you are becoming freer through a good education" (cf. the self-determination or autonomy view of intrinsic motivation, Deci & Ryan, 1985, 1991, and autonomy in action theory, Hollis, 1977, or von Wright, 1976). This suggests that pupils go to school with the specific purpose of entering courses or programs of their own choice at different educational levels, so as to get an education for a profession of their own choice and to attain jobs of their own choice, which they value as good, fun or interesting.

Good professions or jobs seem to refer to academic professions or jobs performed by medical doctors, lawyers, teachers, professors, archaeologists, executive officers or computer engineers.

- So they can get a good job when they get older and so they can learn things and get good grades and get into the programs they want to in the upper-secondary school.
- To get an education for the work you want to do and to get into the upper-secondary school and maybe become something in the world.
- So as to get into the upper-secondary school and higher education and get a good education to be able to choose the kind of job that you find interesting and enjoyable.
- To learn how to speak, write, read or know things so as to become what they want to be, a doctor, pilot or dentist.

With respect to future jobs, being able to acquire a good education in school and to be skilful and competent in different areas in school is expected to result not only in pupils becoming able to get a job in the future, but also in becoming able to a) get a job more easily, b) get a good job, and in being able to c) manage a specific job or jobs, in general.

- So they can get an education. A good education makes it easier to get a job.
- To learn, and the more you learn the better job you get.
- Because we want to learn things so when we get a job more of us will be able to do things like fixing cars.

Pupil statements indicate, in addition, that with respect to future jobs some pupils seem to have a strong belief or trust in human capabilities or as pupils expressed it: "If everybody really tried in school then it would doubtlessly be much easier to get a job," or "To be able to learn to write and count and of course to be able to get a job they want, if they are willing to put in 100%."

According to pupil statements, by acquiring an education and also by being able to get jobs (i.e. based on one's own choice but also jobs in general) pupils are expected to be able to become "someone" in the future.

- To get an education and a job so as to become someone in the future.

To have a job or a good job is connected to a) having the opportunity to earn a living, b) get a family, c) take care of oneself, d) take care of a family, and to e) live a good life.

- Because they want to learn to read and write and so on and so they can get an education and a job to support themselves.

- So that you can get a good education and a good job which pays well so you can support your family.
- So they can get a good job and earn money to their family so they can buy a nice house and build a family = a good life.
- So we can get a job and earn money so we can live a happy life. We learn things so we can travel abroad, teach our children and so on.
- To get a job and live a good and secure life as an adult.

Being able to acquire knowledge, skills and competencies (or an education) in school is related to another very specific personally relevant goal, namely, to obtain personal freedom and become independent from others (cf. Individuality in Self-assertive social relationship goals, in Ford, 1992). In the responses, personal freedom is expressed in terms of being able to "leave your parents' home," "to manage on your own" and "to live your own life".

- To get an education and work when they get a bit older so they can make money themselves and get by.
- So you can support yourself when you grow up and so you don't need to mope at home like a 97 year old or something.
- Pupils go to school to get an education so they can get a job and live their own life.

Table 18. Frequency of themes and sub-themes concerning to go to school as a strategy to attain future goals.

	Freq.
Fut_1. Going to school in order to prepare for the future or	
To have a good or better future	75
To manage well or better in life	53
To have a good, easier or better life	31
To manage in the world	17
	S=176
Fut_2. Going to school in order to get an education or	
To get a good or better education	573
To get a good education in order to get a good job	230
To get an education in order to manage a job	23
To get a good education in order to get better jobs	22
To get an education in order to get a job and money	12
To get an education in order to manage in life	35
	S=895

Fut_3. Going to school in order to acquire education at higher levels or	
To attain higher education	21
To attain education at upper secondary school	11
To attain education at the university	8
	S=40
Fut_4. Going to school in order to acquire a (good) profession	81
Fut_5. Going to school in order to get a job or	
To get a good job	898
To get a job and money	107
To get a job in order to support yourself	68
To get a job easier	35
To be able to choose a job	28
To get a job in order to support a family	18
To get a job and money in order to support yourself	6
To get an interesting or fun job	6
	S=1166
Fut_6. Going to school is order to become someone in the future	34
Fut_7. Going to school in order to attain personal freedom or to become independent	41

Considering the content of the above motivation categories, we may conclude that besides the most important or most frequently mentioned goal to go to school in order to acquire general knowledge in a here-and-now perspective, the next most important or most frequently mentioned goal is to go to school in order to get a job in the future (cf. Andersson, 1996). This finding suggests, among other things, that for some pupils school and the content that is taught in school is personally meaningful to them because it gives them the opportunity to fulfil own short-term purposes, aims or goals and to use acquired knowledge, skills and competencies as a strategy to structure their own future and life as adults.

In the following motivation category how pupils reason about achievements in school and in the future is presented.

Going to school in order to attain good achievemens

In the pupil responses, good achievements, reflected by good grades, seem to be referred to as indicators of progress or effort with regard to a pupil's own personal development and the acquisition of knowledge (including social

knowledge), skills and competencies in a here-and-now perspective. Good achievements or good grades in school seem, in addition, to be referred to as indicators of a pupil's ability, competence or effort to attain jobs in the future. Or as pupils expressed it: "Because the better you are, the more jobs you have to choose among," or the better you are "The bigger the opportunity to obtain a good job, but it is up to you how much you go in for school, if you go in for school more, then you will get a better job, I think."

Note that grades in the Swedish Compulsory Comprehensive school are not awarded until the first term in grade 8 in compulsory school. As already mentioned, the pupils participating in the present study are in grade 6.

- To learn and get a good grade because then it will be easy to get a job.
- To get good grades that show what you can work with as an adult.
- To learn for life and get grades which lead to different jobs with different salaries and demands.

Table 19. Frequency of sub-themes concerning to go to school as a strategy to attain good achievements.

	Freq.
Ach_1. Going to school in order	
To attain good achievements in order to get a good job	25
To attain good achievements	14
	S=39

LEARNING AS A DEMAND

In contrast to the motivation categories presented thus far suggesting that some pupils go to school because of a personal want or desire to attain own goals, the motivation categories to be presented in next suggest that some other pupils go to school because of different kinds of demands set by the state and/or their parents. In the present study, these demands have been considered as having their source outside the pupils (Gardner, 1985), are externally motivated (Rigby, Deci, Patrick & Ryan, 1992), or are evoked by environmental pressures or features (Murray, 1938).

Going to school because it is required by the law

According to pupil statements in this category, the reason as to why pupils go to school is because school in Sweden is compulsory by law for all children through

grade 9 (i.e. until the age of 16 years). Consequently, pupils do not have any choice in regard to going to school or not. In this motivation category no disapproval of this law is expressed, however (cf. External regulation, in Rigby, Deci, Patrick & Ryan, 1992).

- Because there's a thing called compulsory schooling and it means that all pupils have to go to school, rich and poor, black and white.
- The state says we have to therefore we have to.
- Because Sweden has decided that all children have to have 9 years of education.
- Because we have to.

Going to school because it is required by the parents

Another of the given reasons for why pupils go to school is their parents (cf. External regulation, in Rigby, Deci, Patrick & Ryan, 1992). Although the focus of this motivation category is the parents and their reasons for why their children should go to school, the pupil responses indicate that the children themselves have an opinion about this issue as well.

- Because their parents make them and because they need to learn something as well.
- So as to get an education and later on maybe find it easier to get a job and because you have to because your parents make you.

Table 20. Frequency of themes concerning to go to school because it is required by the law and/or the parents.

	Freq.
Comp. Going to school because it is required by the law	765
Parents. Going to school because it is required by the parents	41

According to Durkin (1995), within the family system the acquisition of "rules of behaviour and the systems of beliefs and attitudes that equip a person to function effectively as a member of a society" is the core definition of the socialization process (op. cit. p. 13). Socialization processes are not limited to the family system only, however, but are continued or transferred from the family system to the school system and vice versa (Bronfenbrenner, 1979). In Durkin (op. cit.) as well as in Oppenheimer (1989) the main purpose of socialization processes within the family system as well as the school system is to develop children into "socially competent" or "adaptive adults" (see also Frankel & Roer-Bornstein, 1982).

However, there is ample evidence in the literature about how parents' aspirations for their children's education relate to children's own aspirations or how parents' behaviours relate to children's general achievement motivation (see Wigfield & Asher, 1984, for reviews). For example, Deci and his colleague (Deci & Ryan, 1980, 1985) have argued that when parents promote their children's mastery attempts and foster a sense of self-determination (i.e. autonomy) in their children, those children are more likely to be intrinsically motivated. By contrast, when parents exert too much control over their children then children are more likely to remain extrinsically motivated.

Moreover, research findings suggest that parents who are supportive of the child's autonomy and interests and who take note of the child's point of view (i.e. showing a so-called authoritative parenting style) stimulate higher levels of educational performance (cf. Baumrind, 1987) and have positive influence on the child's expectations about his future (Marjoribanks, 1987). Of importance is that while authoritative parents set the guidelines and goals for their children, characteristic for this parenting style is that guidelines are established in consultation with their children and by discussing ideas with them. Authoritarian parents, on the other hand, seem to be characterized by a cold and punitive attitude towards their children, to show high control and demands, and to expect obedience and respect for authority. As communicators of expectations they seem to lack clarity and they do not take the interests and plans of their children into account (Baumrind, 1989). That is, they rely on orders rather than reasons. In this sense the goals and plans of children from authoritarian parents reflect the parents' goals and plans rather than those of the children themselves.

In the motivation categories to be presented in the next section how pupils perceive the demands or reasons as to why the state and the parents want them to go to school is displayed.

Going to school because the state and the pupils are in agreement that school is good for them

According to pupil statements in this motivation category, by making the school compulsory, the state is expected to make provisions for the future of those pupils who don't know or understand the advantages of being in school in a here-and-now perspective. Or expressed differently, to enable every child to manage the demands of society and thus to survive in his adult life. Or as a pupil expressed it: "We go to school because the government believes that we shall learn what we need to be able to manage in society".

Considering the content of the pupil responses in this category, we may conclude that there seems to be some agreement or common understanding between the state and pupils on the issue that school is "good for them".

- School is compulsory because those who don't want to go to school should still have an equally good chance in the future, otherwise others, those who like school, are going to have a better future.
- The reason for why school is compulsory is because when you are little you cannot have the responsibility for yourself; if you don't want to go to school, then you would probably regret it yourself, because everybody is having a chance; I don't believe that school is that much fun, but at the same time I believe that it is necessary that I go to school.
- There's a law about it but it's mainly for the sake of the children, so that they'll be able to support themselves when they grow up.

Going to school because the parents and the pupils are in agreement that school is good for them

In the pupil responses in this motivation category, parents are recognized to want their children to go to school because this is for "the children's own good". Or as one pupil expressed it: "They must have a good education and learn a lot, otherwise they will not be able to manage by themselves and I believe that this is why parents are forcing them to go to school. It is for their own good".

This category suggests thus that there seems to be some agreement or common understanding even between the parents and pupils on the issue that school is "good for them". Such an agreement is expressed in statements like: "I think that Swedish parents are more careful than they are in places like the USA, although some parents don't give a damn and that's a pity. We have good schools too".

- Parents make you go to school because you can learn something and get a good job to support your family in the future.
- Because parents believe that school is of use to you and because you are forced by parents and teachers and because the adults and the pupils want to have a good education here in life.
- Because parents want them to learn things and because its good to learn things too.
- To get a good job. Even if you want or not, parents force us and because it is good so we can have a proper life.
- We have to go to school and my parents want me to go. I have to go to get an education and a job.

– Pupils want to have a good education. Their parents want them to succeed and get a good job. Some maybe believe it's fun and others that it's boring, but we go anyway.

Table 21. Frequency of themes and sub-themes concerning socialization processes.

	Freq.
Socializ_1. The state and pupils in agreement that school is good for them and that they have to go to school in order	36
To get an education	41
To learn	36
To get an education and a job	6
To acquire specific skills	5
To survive as an adult	5
To support themselves	5
	S=134
Socializ_2. The parents and pupils in agreement that school is good for them and that they have to go to school in order	
To get an education and a job	17
To learn	24
To have a good life or future	12
	S=53

Central to the motivation categories presented above is that the beliefs and values of the state and the parents with respect to pupils' schooling seem to coincide with the pupils' own beliefs and values and that pupils in these motivation categories seem to identify themselves with an authority (i.e. the state and/or the parents), which they think wants the best for them. Given this interpretation, pupils expressing this kind of reason for going to school may be considered as being willing to make efforts to attain the state's and/or the parent's wants or demands with respect to their schooling (cf. Identified regulation, in Rigby, Deci, Patrick & Ryan, 1992).

With respect to the parents, one of the indicated reasons for why some pupils may be willing to fulfil or comply to their parent's wants or demands seems to be because they want to make them happy or proud of them. Consequently, it can be argued here that the parenting style that may hide behind the pupils' willingness or compliance to achieve for others may be an authoritative parenting style rather than an authoritarian one (Giota, 1996).

Besides going to school because it is required by the state and/or the parents, a third reason as to why some pupils go to school is because of a self-defined request or demand where pupils seem to think that they "have to" or "must"

acquire the content that is taught in school (cf. Introjected regulation or feelings of should, ought and guilt, in Rigby, Deci, Patrick & Ryan, 1992).

Going to school in order to acquire knowledge, skills and competencies because pupils think they have to or must do so

The content that some pupils seem to think of as "a must" to be acquired in school refers to a general knowledge (Must_le_1), knowledge in specific school subjects (Must_le_2) and specific skills such as reading, writing or counting (Must_le_3).

With respect to acquiring specific skills in school, in this motivation category no reference is made as to whether the acquisition of skills is personally important to pupils, if they are interested in acquiring any specific skills or how skills may be useful to them in a here-and-now perspective. This goes also for the acquisition of knowledge in specific school subjects. The only school subject that in the pupil responses is referred to as something being very important to pupils to acquire in school is mathematics. Acquired competence in mathematics seems to come into use exclusively in the future however and in particular within private life, giving pupils the opportunity to count and thus take care of their taxes and bills.

- Because you have to learn a lot of things and that is what you do in school.
- We have to learn maths, English, domestic science, languages and so on.
- Because you have to be able to read, count, write and so forth. You have to use what you learn later on and when you get a job.

Going to school in order to acquire and/or develop social knowledge because pupils think they have to or must do so

Besides the above goals, pupil statements suggest that some pupils go to school because they think they "must" acquire and/or develop social knowledge Soc_knowl_2). In this motivation category, the acquisition of social knowledge is not associated with developing one's own social competence in school to enrich interactions with other people, however, but to norms and social comparisons with others. In the pupil responses, social knowledge is expressed in terms of learning "to behave properly," "good manners" and "discipline," or "to differentiate between right and wrong".

Expressed differently, the abilities that are stressed in this motivation category as "a must" to be acquired and/or developed in school are abilities that in the literature are supposed to help pupils to deal with the demands and behavioural expectations of school (Jackson, 1968; Wentzel, 1989). Consequently, in this

motivation category, acquired and/or developed social knowledge and subsequent social competence may concern "conformism and social desirability rather than social competence" and what pupils are "conforming to reflects the values and goals of the social structures in which they are situated" (Durkin, 1995, p. 153).

Central to this motivation category is, however, the notion that some pupils seem to accept the demands and the behavioural expectations required by school or that they at least accept the societal norms and values behind them.

- To learn about how to be adult.
- We go to school because it will be us who take over Sweden in a few years and we have to be prepared to take this responsibility. We need an education for this for we are Sweden's future.

Going to school in order to attain social relationship goals

Besides the reasons presented above, some pupils say that they go school in order to be together with their friends or peers and to build new relationships with other children as well as adults.

As already noted, the issue of going to school in order to be together and have fun with one's friends is rather complicated. In the literature, the goal to go to school to meet friends is, in addition, distinguished from the goal to go to school to meet peers or classmates. Having good relationships with peers or classmates and acting responsibly towards them is thought to facilitate learning, while the opposite relation is thought about having good relationships and fun with one's friends (cf. Wentzel, 1989). However, considering the ways pupils are reasoning about going to school in order to attain social relationship goals in the present motivation category and in the motivation category previously presented (Soc_rel_1) it is difficult to say if pupils in the present study make any difference between going to school in order to meet their friends, peers or other children.

- Because you have to go to school and to talk with your friend.
- Because you have to and to meet friends.

Table 22. Frequency of themes concerning learning as a self-defined demand and going to school to attain social relationship goals.

	Freq.
Must_le_1. To acquire knowledge about things	437
Must_le_2. To acquire knowledge in specific school subjects	79
Must_le_3. To acquire specific skills	67
Soc_knowl_2. To acquire and/or develop social knowledge	22
Soc_rel_2. To attain social relationship goals	20

Going to school as a strategy to prevent feared-for-situations

In this motivation category, the reason some pupils express for going to school is that they "must" acquire the different kinds of knowledge, skills and competencies that are taught in school to counter different kinds of fears that they hold about the future. Pupils in this motivation category seem thus to make themselves go to school as a strategy to prevent feared-for-situations such as unemployment or social failure to become reality. Expressed differently, in this motivation category, acquiring the content that is taught in school is perceived as an unconditional personal demand for the pupils' survival as adults, or a strategy to attain positive or ideal situations in the future. Or as one pupil expressed it: "As long as the society of today looks like this we don't have any choice, we must go to school and learn. On the other hand, if society had been different, all of us would have been uncivilized and hit each other on the head with sticks".

- Because you have to get an education so as to be something worthwhile and get a job so you can support yourself. It might be a bother going to school but I think it is necessary to go to school.
- Because you have to have an education in order to get by these days and I wouldn't want to just sit at home anyway. School is necessary.
- You have to go to school or you will have no future. I think it is necessary. It's better than sitting in front of the TV all day.
- We have to learn to read and count and write and spell otherwise we wont be able to get by as adults.
- Of course we have to go to school as things are now. You have to be able to get a job otherwise you can't get by in society unfortunately.

In Table 23 below, the feared-for-situations that some pupils are trying to prevent by going to school and engaging in the tasks and activites that take place there are displayed.

Table 23. Frequency of themes and sub-themes concerning feared-for-situations.

	Freq.
Fears_1. Perceptions of school as the only source available from which children can acquire knowledge, implying that if children do not go to school they can never	
Get a job	74
Learn anything	46
Manage in the future	17
Acquire any skills	15
Acquire a profession	15
Get money to support themselves	5
	S=172
Fears_2. Going to school as a strategy to prevent feared-for-situations such as	
Unemployment in the future	71
Social failure in adult life	32
Illiteracy	11
	S=114

Going to school as a strategy to attain future goals

Another reason that seems to underlay some pupils' personal "must" and efforts to acquire different kinds of knowledge, skills and competencies in school seems to be related to long-term or future goals in the pupils' future lives (i.e. their roles as adults in the society). These goals involve almost exclusively "good" future jobs.

With respect to jobs, pupil statements in this motivation category indicate the belief that it is the jobs in themselves that demand specific skills and competencies to be acquired in school and that if they are not acquired then pupils will never get a job. In other words, pupils will have to be successful in acquiring these skills and competencies in school, or expressed differently to avoid failure as a strategy to get future jobs and "good" jobs, in particular.

- For the chance of a good future and to learn different subjects and be good in them because jobs demand this.
- Because you have to have a job as an adult and you have to be able to meet the demands jobs set.

In the pupil responses, "bad" jobs are jobs at "the production line," "cleaning toilets," or "collecting garbage," while "good" jobs seem to be jobs which primarily permits pupils to earn (a lot of) money. In this motivation category, money seem to be expressed as the main criterion ("a must") for pupils to manage or survive in adult life as the availability of money does not only allow

pupils to buy things (e.g. a house), but also to fulfil responsibilities (e.g. to pay loans and taxes).

- Because you have to have an education if you want to have a good job and otherwise you just get a bad job as a cleaner, a bin-man or something like that which is badly paid.
- You must learn something to be able to earn money when you grow up. You have to have money to live. How would you manage otherwise? You have to have a job.

In the pupil responses, not to have a job is related to negative consequences such as becoming a "social problem," "poor," or "homeless," which in turn seem to be related to "drinking" or "taking drugs" or "starving to death" (see Willis, 1977). Or as one pupil expressed it: "You have to get an education, because otherwise you cannot get a good job when you become adult, you must have a job, otherwise you cannot earn a living and will be poor, maybe even heavy on the booze, or taking drugs". Expressed differently, not to have a job seems to lead to a personal disaster.

- All children have to go to school and get an education. There's a law that you have to go to school. If you don't go to school you won't be anything when you grow up and might as well die.
- Because you have to have a high education. If you have that you can get work. If you don't get work you can't live anywhere or eat food. I try to get everything right on tests and such.
- You have to go to school to further yourself and get a job. Otherwise you'd be a social case and no-one wants to be that.

Table 24. Frequency of themes and sub-themes concerning going to school as a strategy to attain future goals.

	Freq.
Fut_1. Going to school because of a self-defined demand to acquire general knowledge and knowledge in specific school subjects in order	
To get a good job	135
To manage	23
To manage the jobs	12
To acquire a profession	5
To get a job in order to support oneself	5
	S=180
Fut_2. Going to school because of a self-defined demand to acquire social knowledge in order to manage in society	26
Fut_3. Going to school because of a self-defined demand to acquire a good education	66

Fut_4. Going to school because of a self-defined demand to prepare for the future in order to manage in life	5
Fut_5. Going to school because of a self-defined demand to get a job or	
To get a good job	32
To get a good job in order to get money	16
To manage the jobs	6
To get a good job in order to support oneself	5
	S=59

Going to school in order to attain good achievements as a strategy to prepare for the labour market

In this motivation category, pupils' achievements in school and making efforts to achieve well are expressed as the reason why they have to or must go to school and seem also to be connected to the notion that this would increase job opportunities within the Swedish labour market, which is characterized by high unemployment, according to pupil statements. Consequently, some pupils go to school in order to attain good achievements, reflected by good grades, and to perform better than other pupils as a strategy to prepare themselves for the future where they have to or must compete with others for the jobs and the "good" jobs, in particular.

- Because you have to have good grades to get a job and grades you get in school. How else can you get a good job?
- To get a good job you have to have good grades and be able to know a lot. So much is needed today with unemployment. And parents want it as well.
- You need good grades for good jobs. The people who decide who get jobs choose the ones with good grades. I try to do my best in school and it could be fun to show your grades to your own children. That's my dream.

Table 25. Frequency of themes and sub-themes concerning good achievements in school.

	Freq.
Ach_2. Going to school because of a self-defined demand to attain good achievements	54
To be able to compete with others in the labour market	10
To get a good job	5
To satisfy the demands of the employers, who want to engage people with competence	7
	S=76

As suggested by von Wright (1976), showing a socially responsible behaviour always implies a certain level of "conformity with rules such as the laws of the state or the codes of morality and good manners or custom or traditions" (p. 419). According to Ford (1992), individuals are expected to show a socially responsible behaviour because of their need to fulfil duties, to meet social role obligations and to conform to certain social and moral rules (see Social responsibility in Integrative social relationship goals, in Ford, 1992; To conform to custom in Defence, in Murray, 1938). Or expressed differently, social responsibility is a personally relevant goal and refers to individuals' desire to act in a socially responsible way or to fulfil duties and responsibilities in order to become accepted members of a larger group.

With respect to schooling, in research conducted by Wentzel (1989), conforming to the demands and expectations for social behaviour required by the school and showing a socially desirable behaviour have been found to contribute directly to learning and academic achievement (see also Wentzel, 1991a, b).

Going to school as a strategy to fulfil duties and obligations towards the country

While according to some pupil statements the state is offering all children in Sweden every opportunity necessary for their survival as adults, other pupil statements suggest that the state is expected to want a favor in return. Or as one pupil put it: "School is compulsory in Sweden because people have to become skilful and successful in later occupations; if all people become skilful, then we will have better companies, and then we wouldn't need to pay as much unemployment benefit as we do now either".

Expressed differently, central to this motivation category is pupil statements indicating that some pupils seem to think that they "must" go to school and learn in order to be able to satisfy the demands which they expect the state to ask of them in the future. This is often put by them in terms of duties and obligations and what may be called a social responsibility towards Sweden (see von Wright, 1976; Wentzel, 1989). Accordingly, some pupils go to school because they think that it is their duty to learn things in school in order to be useful to Sweden. Or as pupils expressed it:

- If they don't have any knowledge in the future Sweden will eventually become more and more like a third world country. We can't keep up welfare without schooling.
- Because you have to get a job so Sweden will make it in the future and not get bankrupt.

- So you can get a job when you're adult and so you can do things for Sweden by paying taxes on your wages.
- To know more and therefore have a greater chance of getting a job and also so Sweden can be competitive.
- To have a good chance in life and to ease the national debt.
- So as to learn and get a good job so things go well for Sweden.
- So that we can learn things. If we didn't Sweden would not work in the future.
- So as to learn a lot so that Sweden progresses and can have a good economy.
- To learn so that they can get by in the future and so that the whole of Sweden does not go bankrupt and become a third-world country.
- Because you have to so that Sweden doesn't just collapse and can keep a high standard. It would sink if people didn't go to school and no-one could do a qualified job.

One of the indicated reasons as to why some pupils seem to be willing to acquire knowledge, skills and competencies in school with the purpose to achieve for Sweden seems to be that pupils are not only members of the present Swedish society but also that they will take over the running of Sweden in the future.

- We have to have an education because it is us who will look after Sweden in the future.
- They, i.e. we go to school because it is us who will take over in a few years and we have to be ready.
- To take responsibility for what we do we have to have education because it is us who are Sweden's future.
- Because the pupils are Sweden's future and economy so we have to know what we will do and be able to work abroad. The pupils are Sweden's future.
- You have to be good at your work and in other things. It is us who will take over Sweden.

Table 26. Frequency of sub-themes concerning duties and obligations towards the country.

	Freq.
Soc_resp. Going to school because of a self-defined demand, duty or social responsibility to learn things in school in order to be useful to Sweden or	
So that Sweden can maintain its welfare	27
So that Sweden can acquire a "good" young generation	24
So that Sweden can raise its economy	19
So that Sweden can keep up with the development of other countries	16
So that Sweden can have a future	15
So that Sweden can have less unemployed citizens	13
So that Sweden can function in the future	7
	S=121

A NEGATIVE AND CRITICAL ORIENTATION

In the motivation categories concerning pupils' personal wants vs demands two main reasons for why children in Sweden go to school have been identified. The first involves perceptions of school and education as providing an opportunity and a strategy for children to fulfil personal motives and goals in a here-and-now perspective and to structure their own future and life as adults.

The second involves perceptions of the school as the only source available from which children may acquire the knowledge that the state, society and the labour market define as important. In the pupil responses, the justification of acquiring such knowledge seems to be connected to negative future expectations such as unemployment, or getting bad jobs. In some examples going to school and acquiring an education seems to be the only way for pupils to survive as adults.

In addition to the above, the content analysis to the open-ended question discerned motivation categories in which the pupil responses involve in a sense no personal reasons for going to school, but hinge more on a general criticism towards school and education. In the next section the content of this criticism is presented.

School content

According to some pupil statements the content taught in school is "stupid," "boring" or "meaningless" and unnecessary for pupils to acquire. This is because pupils who go to school "either already know it," "will never remember it anyway," or "can not see how it can be of any use to them in present, every-day situations," as pupils expressed it themselves (cf. the definition of what it means to hate school, in Andersson, 1999).

Specific subjects

Some of the criticism concerning the content to be taught in school seems to be directed to particular educational subjects, and mathematics and Swedish, in particular. With regard to these subjects, pupil statements suggest that pupils in school may have difficulties with understanding the meaning of these subjects and

why they have to learn so "many details," such as the different mathematical rules or grammar.

- To learn something but most of the time it is boring to learn things you already know.
- So we can learn something that we will never remember anyway.
- How would we manage otherwise. But a lot of what we learn is unnecessary and you forget it fast.
- To learn things and get a good education, but we don't do that.
- All pupils go to school to learn a lot to be able to get a job, but you don't learn that much.
- To learn things, but you go ('to school') too many years, for example, I don't believe that I will have any use of knowing the area of Denmark.
- To learn a lot of shit. It would be simpler if we had for example only two rules of arithmetic, but instead of that there are a thousand of unnecessary rules of arithmetic and in Swedish grammar there are all kinds of strange words which you never use when you talk with people.
- To learn to write, count and read but I believe that you shouldn't have mathematics more than once per week. Then it could be more fun with mathematics, which I expect to be the case next term.

Tests and homework

Pupil statements suggest that pupils in school should have less tests in school, less work to take home and they should be permitted to do their homework during school time rather than having to do it during their spare time after school. Or as pupils expressed it:

- To be able to get a good education and different kinds of knowledge for society, but I believe that by having written tests and homework you suppress the pupil's real knowledge about things because a lot of them are worried about tests and also about grades.
- Because they shouldn't be at home and have fun but rather waste their childhood by being in school and doing homework in their spare time.
- To learn things which are required and to get good jobs. But I believe that we should have less homework and less hours in school.
- To learn things, of course. But I believe that you should work in school and not have a lot of homework to do at home.

Taking responsibility for one's own learning

Pupil statements suggest, in addition, that pupils in school would like to have the opportunity to participate in planning the teaching content and other things in school (see what kind of activities pupils in school are allowed to plan, in

Andersson, 1999). As pupils commented themselves, such participation would stimulate their own interest (i.e. motivation) to learn in school (cf. Critical pupils, in Andersson, 1996). In addition, they noted that the amount and level of knowledge that is taught in school is not in par with pupils' intellectual abilities and/or motivation to learn. In this motivation category, pupils seem to remedy this situation by learning things on their own in their spare time after school.

The authority structure of the classroom

An aspect of school that is extensively criticized in this motivation category involves the teachers, because as pupils commented themselves teachers do not give pupils sufficient opportunities to express themselves within the wanted frames (cf. Discontented pupils, in Andersson, 1996).

The meaning of school for one's future life

In pupil responses, the question is repeatedly raised about the use-value of the school content to pupils in their future lives and in their professional life and employment. According to pupil statements, the obligatory number of years of education should be reduced because as one pupil expressed it: "It is strange to go 9 years in school and still not be educated for real work" (cf. Unhappy and Manual oriented pupils, in Andersson, 1996).

The compulsory nature of school

In regard to school being compulsory for all children and thus that pupils have to go to school, pupil statements express the opinion that pupils should have the opportunity to choose if they want to go to school or not. According to the pupil's making these comments, given this choice then pupils would likely not have chosen to attend school.

Table 27. Frequency of themes concerning a neg/critical orientation towards school.

	Freq.
N/cr_cont_gen. School content	19
N/cr_cont_spec. School subjects	8
N/cr_tests_hw. Tests and homework	6
N/cr_autonomy. Learning autonomy	6
N/cr_authority. The authority structure of the classroom	8
N/cr_meaning. The meaning of school	15
N/cr_comp. The compulsory nature of school	12
	n=74

INTERPRETING THE MOTIVATION CATEGORIES

Summarizing the content of the present chapter, we may say that the first step in the analysis of the pupil responses to the open-ended question has been able to identify general themes according to predefined criteria and patterns of responses that were recurrent throughout the whole data material. This was done by identifying specific conceptions of different phenomena in each pupil response in order to capture the general conceptions of the same phenomena in all pupil responses.

The sub-themes identified in the above way may thus be conceived as descriptions of general themes or as concretizations that give meaning and significance to such themes. However, each of the identified general themes and sub-themes are expressions of different types of cognitive processes (such as thoughts, perceptions and beliefs) and motivational processes (such as motives, goals, affections and values) at a fairly abstract level of analysis. As noted already, the individual's thoughts, perceptions and beliefs about different phenomena and situations are expected to determine his motivation to act in relation to these phenomena and in these situations (e.g. Dweck & Leggett, 1988; Maehr & Braskamp, 1986). Or inversely, the ways an individual will come to perceive, think and reason about different phenomena and situations are determined by his motivation (e.g. Nicholls, 1984). Within goal orientation theory, the complex interrelations between different types of thoughts, perceptions, beliefs and motivation are expressed in terms of different types of goal orientations that individuals are expected to hold about themselves in relation to the world around them.

The content of the identified themes and sub-themes suggests that different pupils perceive, think and reason about school and education quite differently. The different ways of perceiving school and education seem to be connected to different types of personal reasons (i.e. motives and goals) for going to school. Given the relationship between thoughts, perceptions, beliefs and motivation, it is suggested here that the different ways of perceiving school and education and the pupils' own reasons for going to school, put together, may be conceived as different types of goal orientations that different groups of pupils hold towards school and education. In this section, an analytical model is presented of the kinds of goal orientations different groups of pupils may hold towards school and education.

The conceptualisation of different types of general themes and sub-themes as the components or the general characteristics of different types of goal orientations towards school and education is to be seen as the second step in the analysis of the pupil responses. In particular, the purpose of conceptualizing the findings of the present study in terms of different types of goal orientations towards school and education is to increase our understanding of pupil motivation by relating them to individual data.

In the next chapter, my aim is to test how different kinds of general conceptions of specific phenomena such as "going to school," or "the purposes of school," and "reasons for learning," conceptualized as the general characteristics of different types of goal orientations towards school, relate to individual pupils' school achievement and gender. By doing so, the relationships between a "general" issue such as different types of complex cognitive and motivational processes and a "specific" case such as what is typical for individual pupils can be investigated. By taking into consideration the findings of this second step of the analysis, a third step can be taken which could be termed "from the specific back to the general". The third step can be seen as a basis for improving the general units of analysis (i.e. the themes and sub-themes) by taking into consideration individual differences.

The main reason for conceptualizing different types of general themes and sub-themes in terms of different types of goal orientations is, however, the fact that the pupil responses to the open-ended question are not single responses, but multiple-responses which involve several statements and thus combinations of different general themes and sub-themes. The different types of goal orientations presented next represent an attempt to put together the patterns of responses that groups of pupils have in common and to test them in relation to individual data.

As noted already, the total number of themes and sub-themes identified on the basis of the content analysis of the pupil responses is 600. The 600 themes and sub-themes have been coded in a data file (SPSS version 9.0 for Windows) as numerical variables. Each pupil response has obtained a score of 1 for every theme and sub-theme involved in this response. For instance, if a pupil response involved three different statements this pupil response obtained a score of 1 across three variables of the total 600 in the data file. The data file in which all individual data are stored has been built as a matrix comprising 7391 cases (i.e. pupils) and 600 variables (i.e. themes and sub-themes).

In the first step of the conceptialization of the different types of goal orientations, the 600 themes and sub-themes were situated along an internal and external and a here-and-now and future time motivational dimension. The basis of the internal and the external motivational dimension is the different kinds of personal reasons (i.e. motives and goals) that pupils participating in the present study are expressing in their responses to the open-ended question. These reasons have been considered as having their main source either in the pupils (i.e. are evoked by internal processes in the individual), or outside the pupils (i.e. are evoked by processes external to the individual such as environmental pressures and features). The basis of the here-and-now and the future time motivational dimension is whether the different types of motives and goals expressed by the pupils are to be attained in a present or in a future time perspective. In Figure 1, the abbreviations of the general themes, presented in the previous sections are used to demonstrate this system of classification.

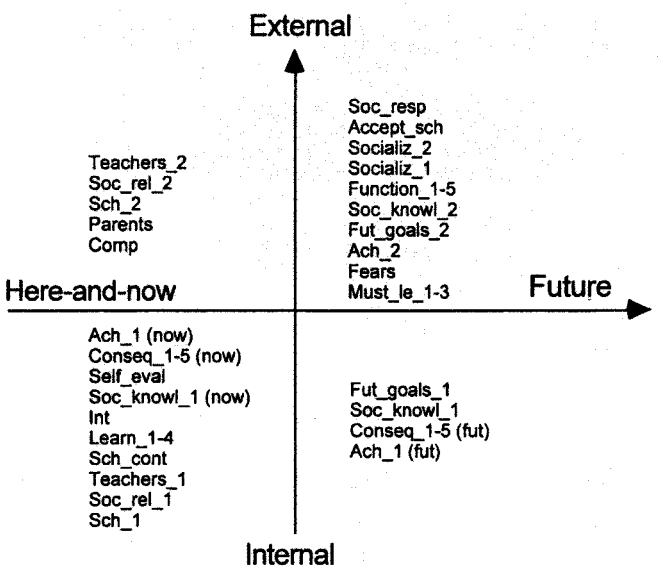

Figure 1. Classification system.

As can be seen in Figure 1, at the very left end of the here-and-now and the internal motivational dimension are themes and sub-themes involving perceptions of school, the teachers in school and the content that is taught in school as stimulating for pupils in a here-and-now perspective. Although school is compulsory by law, pupils situated at this end are expected to go to school and engage in the tasks and activities that take place there because they find them enjoyable and interesting or good in themselves (see intrinsic motivation, Pintrich & Schunk, 1996). Next are perceptions of school and education as an opportunity for pupils to attain their own goals. Pupils at this end are expected to go to school because they find the tasks and activities that take place there important and useful to them as developing persons. By going to school and engaging in the tasks and activities that take place there these pupils are expected to try to attain a variety of personally relevant goals (or the outcomes of these goals) in a here-and-now perspective (see goal theory, Ford, 1992; Locke & Latham, 1990; Wentzel, 1989). Next to these pupils are others who also have their own goals for the tasks and activities that take place in school, but these pupils are at the same time aware that attained goals, or their outcomes, have long-term consequences or implications for their future life. At the extreme right of the future time and the internal motivational dimensions are perceptions of school as an opportunity for pupils to structure their own future and life as adults. Pupils situated at this end are expected to go to school because the outcomes of their immediate aims can be used as a strategy to fulfil own long-term goals. By going to school and acquiring the content that is taught in school these pupils want to structure their future to promote their development as persons.

At the very bottom of the external and the here-and-now motivational dimension are perceptions of school as a work place for pupils as well as teachers. Next are perceptions of going to school and acquiring the content that is taught there as something that is required by authorities such as the state, society or the parents. Pupils at this end may not initially want to go to school or engage in the tasks and activities that take place there but do so because they do not have any other option (see external regulation, Rigby et al., 1992). Next are pupils who go to school and engage in the tasks and activities that take place there because of a self-defined demand (see introjected regulation, Rigby et al., 1992). That is, because they think that they should or must do so to prevent different kinds of personal fears and future threats. These pupils are almost exclusively future oriented and are planning to use acquired knowledge, skills and competencies in school as a strategy to attain own long-term goals and future jobs, in particular. Next to these pupils are pupils who express different kinds of reasons as to why

the state or society created school and why the state or society wants all children to go to school. These pupils are expected to go to school and to engage in the tasks and activities that take place there because they believe that their education in school is meaningful and useful to society (see identified regulation, Rigby et al., 1992). The next set of responses express different kinds of reasons given by pupils as to why parents want their children to go to school. These pupils are expected to go to school and engage in the tasks and activities that take place in school because their education is in line with their parents' expectations about their education and future (see identified regulation, Rigby et al., 1992). This set of responses is followed by the set of responses situated at the extreme right of the future time and the top of the external motivational dimension from pupils who say that they go to school to attain good achievements in school not only for their own good but also for the good of other people, society and the labour market (see integrated regulation, Rigby et al., 1992). The reason for their willingness to do so seems to be a sense of social responsibility (see social responsibility, Wentzel, 1989; Ford, 1992; von Wright, 1977). Thus, at the extreme right of the future time and the top of the external motivational dimension are perceptions of school and education as a strategy for pupils to prevent a poor-future or to ensure a good future for themselves and others. The pupils at this end often express a "gratitude" towards the state or society for giving them an opportunity to do well in school (see integrated regulation, Rigby et al., 1992).

In Table 28 the number of themes and sub-themes situated along each of the four motivational dimensions are displayed, along with the number of themes and sub-themes expressed by pupils within each of these dimensions.

Table 28. Frequency of themes and sub-themes involved in each of the four motivational dimensions and expressed by the pupils within these dimensions.

	Freq.	%
Themes and sub-themes situated along the here-and-now and the internal motivational dimension	136	22.7
Number of themes and sub-themes mentioned in the pupil responses		
1	3132	42.4
2	890	12.0
3	281	3.8
4	103	1.4
5	74	1.0
6	27	0.4
7	16	0.2

Themes and sub-themes situated along the future time and the internal motivational dimension	162	27.0
Number of themes and sub-themes mentioned in the pupil responses		
1	2296	31.1
2	375	5.1
3	67	0.9
4	11	0.1
Themes and sub-themes situated along the here-and-now and the external motivational dimension	105	17.5
Number of themes and sub-themes mentioned in the pupil responses		
1	1337	18.1
2	337	4.6
3	96	1.3
4	17	1.3
Themes and sub-themes situated along the future time and the external motivational dimension	182	30.3
Number of themes and sub-themes mentioned in the pupil responses		
1	824	111
2	232	3.1
3	46	0.6
4	10	0.1

As can be seen in Table 28, in their responses to the open-ended question most of the pupils participating in the present study express one single theme or sub-theme. Pupils who in their responses express two or three themes or sub-themes more frequently than other pupils are situated along the here-and-now and the internal motivational dimension. The differences in the number of expressed themes and sub-themes may be a result of, among other things, differences in the vocabularies of pupils and understanding of the stated open question, a lack of desire to respond, or an inability to really answer a question about themselves or others. This issue will be discussed in more detail in the discussion chapter of the present investigation.

Some of the general themes and sub-themes identified among the pupil responses could not be situated along these four motivational dimensions, however. These themes and sub-themes involve perceptions of school as a place of torture (Sch_3), perceptions of teachers as being in school to make pupils suffer (Teachers_3) and a general negative and/or critical attitude towards school, the content that is taught there (N/cr_cont_gen to N/cr_comp) and the context in which school is embedded (Reject_sch). Given the general negative and/or critical

attitude and affection towards school and education central to all of these themes and sub-themes, but absent in all the rest, these themes and sub-themes were situated along a third motivational dimension termed neg/critical. The number of themes and sub-themes situated along this dimension is 15 of the total 600 or 2.5%.

At the very left end of the neg/critical motivational dimension are pupils who in their responses to the open-ended question express a strong negative attitude towards school and education and a rejection of school almost out of hand. These pupils may be conceived as pupils who if they had the opportunity to choose between going to school or not would not have chosen school. At the very right end of the neg/critical motivational dimension are pupils who may be prepared to accept school if some conditions in school could be changed.

By taking into consideration the content of the themes and sub-themes situated along the left side of the here-and-now and the internal motivational dimension it is suggested here that this orientation towards school and education may be termed Self-now focused goal orientation. Moreover, by taking into consideration the content of the themes and sub-themes situated along the right side of the future time and the internal motivational dimension it is suggested here that this orientation towards school and education may be termed Self-future focused goal orientation. The themes and sub-themes situated at the left side of the here-and-now and the bottom of the external motivational dimension may be considered as indicating an Others-now focused goal orientation, while the themes and sub-themes situated at the right end of the future time and the top of the external motivational dimension may be considered as indicating a Preventive-future focused goal orientation. And finally, considering the content of the themes and sub-themes situated along the neg/critical motivational dimension it is suggested here that these responses may be termed as indicating a Neg/critical focused goal orientation.

For purposes of classifying the pupils, the number of responses in the themes and sub-themes belonging to each of the five goal orientations above was determined for each pupil. Thus, new variables were created and added to the data matrix that expressed the number of responses classified as Self-now, Self-future, Others-now, Preventive-future and Neg/critical. These variables were then transformed in such a way that the pupil obtained a score of 1 whether 1, 2 or more such responses had been given.

The fact that each pupil could give multiple-responses implies that he or she may simultaneously give evidence of more than one goal orientation. For example, two statements in a pupil response may indicate a Self-now focused goal orientation, while a third statement may indicate a Self-future focused goal orientation.

In order to investigate the prevalence of different combinations of goal orientations the five variables (i.e. the goal orientations) have been cross-tabulated. The number of pupils for each combination of values (i.e. the score of 1 and 0) of the four variables (the Self-now, the Self-future, the Others-now and the Preventive-future focused goal orientation) are shown in Table 29. Given the small number of pupils involved in the Neg/critical focused goal orientation, this orientation is not included in Table 29.

Table 29 shows that the number of pupils who are exclusively Self-now focused is 2265 (i.e. the pupils who obtained the score of 1 on the Self-now variable and a score of 0 on all the other variables). The number of pupils who may be considered as exclusively Self-future focused is 985. The number of Others-now focused is 859, while the number of pupils who may be considered as exclusively Preventive-future focused is 332.

Table 29. Cross-tabulation of number of pupils assigned different types of goal orientations.

			Preventive-fut	Preventive-fut	n
Self-future	Self-now		0	1	
0	0	Others-now 0	175	332	507
		Others-now 1	859	146	1005
		Tot	1034	478	1512
0	1	Others-now 0	2265	312	2577
		Others-now 1	358	59	417
		Tot	2623	371	2994
1	0	Others-now 0	985	103	1088
		Others-now 1	138	32	170
		Tot	1123	135	1258
1	1	Others-now 0	1267	99	1366
		Others-now 1	94	25	119
		Tot	1361	124	1485

Table 29 also shows that some pupils integrate cognitive and motivational aspects that have been considered as internal with cognitive and motivational aspects that have been considered as external. The different types of integrative goal orientations are displayed in Table 30, including the Neg/critical focused goal orientation. Missing in Table 30 refers to the number of pupil responses that do not express any of the identified goal orientations.

Table 30. Frequency of pupils demonstrating different types of goal orientations.

Single goal orientations	n	%
Self-now	2265	30.6
Self-future	985	13.3
Others-now	859	11.6
Preventive-future	332	4.5
Neg/critical	326	4.4
Integrative goal orientations 1		
Self-now + Self-future	1256	17.0
Others-now + Preventive-future	146	2.0
Integrative goal orientations 2		
8. Others-now + Self-now	350	4.7
9. Preventive-future + Self-now	308	4.2
10. Others-now + Self-future	135	1.8
11. Preventive-future + Self-future	103	1.4
12. Preventive-future + Self-now + Self-future	98	1.3
13. Others-now + Self-now + Self-future	91	1.2
14. Others-now + Preventive-future + Self-now	58	0.8
15. Others-now + Preventive-future + Self-future	30	0.4
16. Others-now + Preventive-future + Self-now + Self-future	25	0.3
Missing	24	0.3
Total	7391	100

As can be seen in Table 30, the most common goal orientation is the Self-now focused goal orientation (30.6%), followed by the integrative goal orientation termed Self-now plus Self-future focused goal orientation (17.0%). Pupils with high integrative Self-now plus Self-future focused goal orientation should evidence the cognitive and motivational elements placed at the internal and the most left end of the here-and-now motivational dimension and the motivational elements placed at the internal and the most right end of the future time motivational dimension. In the next section, the content of these different types of

goal orientations towards school and education and the above findings will be discussed in more details and in relation to well-established motivation theory and research.

DISCUSSION

The first purpose of the present study has been to present pupils' perceptions of today's school and education and the context in which school is embedded. In order to investigate this aim an open-ended question has been used (see also Giota, 1995). This aim can seem somewhat strange, but after having taken part in evaluations of the pedagogical quality of both school and pre-school education on several occasions (Kärrby & Giota, 1994, 1995; Tietze & Giota, 1998; Kärrby, Sheridan, Giota, Däversjö-Ogefeldt & Björck, 2000; see also Bjurek, Gustafsson, Kjulin, Kärrby, 1996), it is my experience that much of today's teaching is based on adult criteria in general, and teachers' criteria, in particular.

These criteria consist of the adults' ideas about when certain events are to occur in children's lives (such as when it is possible for them to get a job). With respect to schooling, teacher criteria determine what is important for pupils to learn in school, which goals are possible for them to set up and to realise in school, how they must act (behaviourally) to realise these goals, which of their outcomes are to be regarded as successful goal realisation and which as failures (see also Malmberg, 1998; Andersson, 1996). The question is, however, what happens to pupils who are unwilling to accept adult criteria concerning their lives in school?

According to Covington (1992), in most Western societies the meaning of being "successful" and "worthy" for school-age children is often determined by their academic achievements. To the extent that children accept or conform to this general societal value, their self-worth and perceptions of being a successful pupil will depend on their school achievements. As stated by Covington (1992), in order to protect their self-worth, some pupils who have repeatedly failed in school, for one or another reason, will after a while start to engage in self-protective (or self-damaging) patterns of achievement behaviour. This implies that the achievement outcomes of some pupils in school will be lower than their actual intellectual potential and capacities (see Phillips & Zimmerman, 1990; Zimmerman & Martinez-Pons, 1990; Assor & Connell, 1992).

However, pupils who accept or conform to the above general societal value and turn to satisfy goals and expectations that are more important to others rather than to themselves are expected to put themselves into a difficult situation. This is because demonstrating one's worth to others and the adoption of extrinsic or performance goals will according to Nicholls (1979) have debilitating motivational consequences for most pupils because it is only those pupils who do well relative to peers that can thrive under this kind of goals. In addition, pupils who turn to satisfy the requirement of attaining goals set by others and who adapt their own behaviour to the intellectual and social regulations, norms and values which apply in the classroom are expected to lose their own motivation to work in school in order to satisfy personally relevant interests and goals and to have difficulties to motivate themselves for school work again when the external requirements are no longer in effect (Lepper, 1981, 1983; Lepper & Hoddel, 1989).

Not all pupils are willing to accept, conform or respond positively to societal values or the intellectual requirements and social expectations for behaviour in school, however. Some of them will see through the educational and socialisation aims of school (Good & Brophy, 1986; Sylva, 1994; Andersson, 1996) and its extrinsic structures, controls and rewards (Deci & Ryan, 1991) and maybe reject school (Willis, 1977).

For other pupils the aims of their schooling, as defined by their teachers or parents and the school curriculum, can appear all too diffuse or can be in poor agreement with the reality and pressure that they experience outside of school. This can make it very difficult for them to become motivated towards the tasks and activities that take place in school. Consider for instance the amount of information and the varied impulses that pupils of today obtain via internet and other mass media and the plethora of leisure activities available to them and which they must partake in if they are to keep pace with modern lifestyle ideals as well as the frustrations they experience with regard to career choices in a labour market that is in constant flux.

All children in Sweden and in other countries have to go to school until a certain age, however. So, how do pupils' perceive school and education and their lives in school? The general finding of the present study is that when we ask the pupils themselves about their perspectives they give expression to a far from shallow view of the compulsory nature of schooling. On the contrary, the content analysis suggests that the pupils' understanding penetrate beyond the front-stage

school scenario and their positions in it as pupils to a far greater extent than we adults may think.

Consider for instance comments such as children are going to school because "The people who make the decisions or the rules want to have people working for them, so that they are not forced to work themselves," or "Some old codgers want that you slave for them. The more you know the more you will slave for them," expressed by pupils in the Neg/critical focused goal orientation. This kind of comment can be contrasted with comments such as children are going to school because "If they don't have any knowledge in the future Sweden will eventually become more and more like a third world country. We can't keep up welfare without schooling. If you don't learn anything you can't get a job. Sweden can't afford people, who don't do anything," as expressed by a pupil in the Preventive-future focused goal orientation.

In my opinion, such comments indicate that pupils are neither ignorant of nor disinterested in the factors that are influencing their lives in school (Buchmann, 1989; Hurrelmann, 1993). On the contrary, the content analysis suggests that pupils in school both reflect over and are aware of what school wants from them as pupils and that they have both broad and deep knowledge and insights into a lot of different things. These things concern both the importance of schooling for their life as adults, educational practices, the teacher's competence in teaching pupils, school regulations, the history of school and the economic, material and functional relations of school and society. Added to this is a consciousness of the import of what parents want them to do in school and why peers want them to be in school.

Motives for going to school and learning

Another general finding of the present study is that the different understandings of the compulsory nature of school and all the factors that are thought to influence pupils' life in school are connected to different kinds of motivation. That is, the pupils' own reasons defined as motives and goals for going to school. However, if we adults would take for granted that pupils see schooling as something they just have to put up with in order to get the academic knowledge and skills required for them to cope with the labour market and their life as adults then we would be surprised. Because when we ask 13-year old pupils in Sweden about their own reasons for going to school they in fact give expression to a big variety of motives and goals. To map this variety of motives and goals for going

to school and thus the different concerns that motivate pupil behaviour in school has been the second purpose of the present study.

The content analysis suggests that pupils have several clear motives for going to school. The first motive involves an inner "want" or "desire" to go to school and engage in the different tasks and activities that take place there because these are fun, interesting or good in themselves. In the literature, pupils who engage in tasks and activities for their own sake (e.g. because they find them enjoyable or interesting), or simply because they "want to" are considered as intrinsically motivated (Pintrich & Schunk, 1996; see also "wants" in action theory, e.g. Oppenheimer, 1991a, and in von Wright, 1976). Considering the content of this motive, which in the present study is characteristic for the Self-now focused goal orientation, we may conclude that this motive is similar to a general definition of intrinsic motivation.

The content analysis suggests that pupils have an additional motive for going to school. This motive refers to an inner "want" or "desire" to go to school and engage in the tasks and activities that take place there because pupils have their own goals for these tasks and activities. This motive is a common characteristic of both the Self-now and the Self-future focused goal orientation of the present study. The fact that some pupils engage in school tasks and activities for their own sake or for the goals inherent in them (e.g. to learn how to do quadratic equations) at the same time as they have own personal goals for these tasks and activities (e.g. to just complete the task, to get more correct than anyone else) that influence their achievement behaviour in school is an unresolved issue within intrinsic motivation theory and research.

As noted already, some tasks and activities in school may be fun or interesting and challenging in themselves, but most of the time the tasks and activities that take place in school are not (Wentzel, 1989; Deci & Ryan, 1985). In order to maintain engagement and performance some pupils may adopt goals that are more important to others rather than to themselves, while others will continue to learn according to self-set standards and maintain a task-involved or mastery goal orientation towards their school work (Nicholls, 1979). As stated by Nicholls (1979), since many schools promote ego involvement (i.e. the adoption of performance or extrinsic goals) (especially from the late elementary school years on), many pupils' own motivation for school tasks and activities will suffer as they proceed through school. To reduce ego involvement and increase task involvement (i.e. the adoption of mastery or intrinsic goals), Nicholls (op. cit.) suggests that pupils should be given tasks that are moderately challenging and

that the salience of task-extrinsic incentives (such as grades and/or how well one is doing relative to others) should be reduced.

The fact that some pupils enjoy themselves while being engaged in the tasks and activities that are taught in school at the same time as they plan to use them as a means to attain own goals that are of a more future character is another unresolved issue within intrinsic motivation theory and research. The same goes for the fact that some pupils have an intrinsic interest in the tasks and activities that are taught in school at the same time as these tasks and activities are of importance and usefulness to them in a here-and-now perspective and are planed to be used as a means to attain own future goals.

In the present study, the motives to engage in school tasks and activites because of the goals inherent in them, but also because pupils have personal goals for these tasks and activities (irrespective of these are short- or long-term goals) have been considered as being evoked by inner processes, or as being internal to the pupils. This implies that the motive to acquire knowledge, skills and competencies in school as a means to attain own long-term or future goals (such as to structure one's own future and life as adult), which is the main characteristic of the Self-future focused goal orientation, has been considered as being internal to the pupils in the same way as the motive to go to school in order to attain own short-term goals, central to the Self-now focused goal orientation.

The fourth identified motive refers to a "demand" to go to school and engage in the different tasks and activities that are taught there because it is required by authorities such as parents, teachers, the state or society and the labour market. This motive is the main characteristic of the Others-now focused goal orientation. Pupils in the present study express an additional "demand" for going to school, however. This is a "self-defined" or "personal demand" set by the pupils themselves. This personal demand is expressed in statements where pupils go to school and engage in the tasks and activities that are taught there because they think that this is a "must" for their survival as adults. This motive is one of the main characteristics of the Preventive-future focused goal orientation. In the present study, the "demand" to go to school because it is required by authorities, or because of a "personal demand," have been considered as having their source outside the pupils, or as being evoked by external pressures or features. The "personal demand" has been considered as externally motivated as well because this demand seems to be controlling the pupils (see introjected motivation, Rigby, Deci, Patric & Ryan, 1992).

In the literature, pupils who engage in tasks and activities as a means to an end or because they believe that their participation will result in desirable outcomes such as rewards, teacher praise or avoidance of punishment have been considered as extrinsically motivated. In Rigby, Deci, Patric and Ryan (1992) this type of extrinsic motivation is termed external regulation and is supposed to be manipulated or controlled by teachers in a direct way. Here teachers' power over pupils is expected to be strong in the sense that they can use external stimuli (e.g. threats of good or bad grades relating to good or bad jobs in the future, high and low pay, and so on) to force pupils to invest in their studies. In short, extrinsically motivated pupils may to a greater extent than other pupils tend towards learning for other purposes (i.e. those of teachers or parents) rather than their own. This is so because they initially may not want to work on the tasks or activities that are taught in school, but do so to avoid getting into trouble.

Rigby, Deci, Patric and Ryan (1992) have identified three additional types of extrinsic motivation termed introjected regulation, identified regulation and integrated regulation. In introjected regulation pupils are expected to engage in a task because they think they "should" or "must" and may feel guilty if they don't do the task. In identified regulation, on the other hand, pupils are expected to engage in the task because it has become personally important to them. In integrated regulation pupils are expected to integrate various internal and external sources of information into their own self-schema and engage in behaviour because of its importance to their sense of self.

Thinking of the "demand" to go to school and engage in the different tasks and activities that are taught in school because it is required by authorities, we may conclude that this is similar to external regulation. The "personal demand" to go to school and engage in the tasks and activities that take place there because one "should" or "must" on the other hand, is similar to introjected regulation. In Rigby et al. (op. cit.) feelings of should, ought or guilt are thought to be internal to a pupil, but not self-determined. That is, these feelings are not evoked by internal processes in the pupil (such as the pupil's own needs, wants, wishes or desires for doing things), but mainly by environmental pressures or features. Given this interpretation, while introjected regulation refers to an indirect environmental control or pressure and internal force, external regulation has to do with a more direct environmental control or pressure and external force.

The content analysis suggests that some pupils not only accept the "demands" and goals set by different authorities and the labour market for them, but are even willing to make efforts to fulfil these demands and goals. This motive

is one of the main characteristics of the Preventive-future focused goal orientation as well. Pupils in this orientation demonstrate, in addition, an awareness or understanding of the need to reciprocally co-ordinate perspectives (Selman, 1980). That is, to take into consideration the perspectives of other people (i.e. their needs, wants, wishes or desires as well as demands and expectations) and to interact positively with them in order to be a successful pupil in school, child in the family system and member of the Swedish society. Expressed differently, for pupils in the Preventive-future focused goal orientation, achieving well in school for the sake of different authorities and the labour market and for oneself to prevent a "bad future" or ensure a "good future" for others and oneself has become personally important. Given this interpretation, we may conclude that the motive to achieve for others and oneself because the demands and goals set by others have become personally important to the pupils is similar to identified regulation.

Note that as is the case in the Self-now and Self-future focused goal orientation, pupils in the Preventive-future focused goal orientation have own goals for the tasks and activities that take place in school. In the Preventive-future focused goal orientation, however, the efforts to acquire different kinds of knowledge, skills and competencies in school in a here-and-now perspective seem to be related almost exclusively to long-term goals in the pupils' lives as adults and survival in the future.

According to Rigby et al. (op. cit.), pupils who have internalised extrinsically motivated behaviours (external regulation), feelings of should, must, ought or guilt (introjected regulation) and the demands and goals of others that have become their own demands and goals (identified regulation) are suggested to demonstrate the highest level of extrinsic motivation, that is, integrated regulation. As noted already, the integrated type of extrinsic motivation implies that pupils can integrate various external and internal (in this case feelings of "must" and "should") sources of information into their own self-schema and engage in behaviours because of their importance to their sense of self. However, although this type of extrinsic motivation is still instrumental, integrated regulation is suggested to represent a form of self-determination and autonomy. As such, both intrinsic motivation and integrated regulation are expected to result in more cognitive engagement than external regulation, introjected regulation and identified regulation.

In the present study, the motive similar to integrated regulation has been situated at the very top of the external and the very right end of the future time

motivational dimension and has been considered as another main characteristic of the Preventive-future focused goal orientation. Integrated regulation as it is defined in Rigby et al. (op. cit.) has as its consequence, however, that pupils cannot question the adequacy of different kinds of environmental controls or pressures for their own learning and development because these controls or pressures have become an internalised part of their own self-schema. This is not the case with pupils within the Preventive-future focused goal orientation, however. These pupils express a personal responsibility to achieve for the best of others and themselves in a future perspective and a personal must to make conscious decisions about their own future and survival as adults in an adult society.

Pintrich and Schunk (1996) observed that it is tempting to think of intrinsic and extrinsic motivation as two ends of a continuum, where the higher end is the intrinsic motivation and the lower end is the extrinsic motivation. According to these researchers there is no automatic relation between intrinsic and extrinsic motivation, however, implying that for any given situation an individual may be high on both, low on both, medium on both, high on one and medium on the other, and so on. Expressed differently, intrinsic and extrinsic motivation are to be considered as separate dimensions each ranging from high to low.

Thinking of the different types of goal orientations of the present study, it is suggested here that these orientations are expressions of such dimensions of internal and external motivation. Moreover, as can be seen in Table 30 in the previous section, in their orientation towards school and education some pupils integrate cognitive and motivational aspects central to one type of goal orientation with another or several other types of goal orientations in different ways. Thinking of this finding in the light of Pintrich and Schunk's (1996) suggestion about intrinsic and extrinsic motivation, we may conclude that the findings of the present study suggest that there are different levels of internal and external motivation and that these levels seem clearly to co-exist within pupils at a given time.

In the literature, intrinsic motivation and integrated regulation are suggested to promote learning and achievement better than extrinsic motivation. Whether the goal orientations that in the present study have been considered as being based mainly on internal cognitive and motivational processes relate to higher academic achievement as compared to the others is to be investigated in the next chapter.

Besides these goal orientations there is the Neg/critical focused goal orientation which does not indicate any clear motives for why pupils are going to school even though not all pupils indicating this goal orientation are totally against school and education (i.e. learning in school). Some of them seem to be willing to accept school if some educational conditions could be changed, while others seem to be unwilling to accept school if no bigger changes (on the macro level) can be done. Some of them seem, in addition, to have given up in school and to have become passive, while others indicate a tendency towards aggressivity. These pupils make no comments about how school could be changed in order to better fit their own motivation to learn, but express how bad they feel in school with comments such as "I would most of all like to be out in the woods and run so that I can escape from being bullied," or "I hope all schools burn down". Expressed differently, pupils in this motivational orientation may have own motives for being in school, but these motives are not clearly expressed in their responses.

Personally relevant goals

Besides different types of motives, each of the goal orientations identified in the present study involves several distinct sets of goals which are both cognitive, social and affective in nature (i.e. multiple goals) (Ford, 1992; Wentzel, 1989). As already stated, goal orientations attempt primarily to explain pupils' choice of achievement tasks, persistence on those tasks and vigor in carrying them out. Dweck and Leggett (1988) have argued, however, that their goal orientation theory can also be used to explain behavioural patterns in the social domain. In short, the learning/development goals that mastery or learning oriented pupils are expected to try to attain in social situations in school involve hopes to develop new social relationships, expand social horizons and social experiences and to master new social tasks. The theory predicts, in addition, that in the face of difficulties or problems in social situations in school (e.g. rejection and conflict) pupils will react with maladaptive "helpless" responses.

In the present study, the most frequently mentioned personally relevant goals that pupils in the Self-now focused goal orientation try to attain in school are learning goals. In Ford (1992) this type of goals is found under the heading Cognitive goals and Task goals. Note that Task goals, involving Mastery, are identical to the mastery goals of Dweck (Dweck & Leggett, 1988), the task goals of Ames (1992) and the task involvement goals of Nicholls (1979). Pupils in the Self-now focused goal orientation express, in addition, a strong trust in human

capacities and potentials and a link between efforts and outcomes (see Table 14 concerning beliefs about intelligence, learning and development).

The social goals central to the Self-now focused goal orientation reflect a "want" or "desire" to attain and/or develop social knowledge, abilities, skills and competencies in school, to meet friends, be together with peers and to build relationships with other children and teachers. Ford (1992.) puts this type of goals under the heading Integrative social relationship goals (see also Affiliation, in Murray, 1938). As indicated by pupil responses, acquired social knowledge, abilities, skills and competencies are planed to be used by pupils in this orientation in interactions with other people as a means to get to know other people and gain insights in their lives and manners (see Table 17, Cons_3 and Cons_4). Along with learning and social goals, pupils in this orientation go to school to attain affective goals (see Affective goals, in Ford, 1992, and Play, in Murray, 1938). These goals refer to the enjoyment that these pupils seem to experience while being in school and when taking part in the tasks and activities that are taught in school.

Taking these different sets of goals together, we may say that the personally relevant goals that pupils in the Self-now focused goal orientation try to attain in school in a here-and-now perspective refer to a quest for self-actualisation (i.e. to attain one's own goals), self-determination with respect to learning (i.e. to take responsibility for one's own learning in school) and self-growth through the realisation of one's potential and capacities (see also Maslow, 1954). In the same way, the social goals that pupils in this orientation try to attain in school refer to a quest for developing their own social knowledge, abilities, skills and competencies in communicating with and relating themselves to others, and developing relationships between themselves and others.

In summary, for pupils in the Self-now focused goal orientation, school and taking part in the tasks and activities that take place in school is important and useful to them as persons. By going to school and engaging in the tasks and activities that take place there pupils in this orientation are trying to satisfy their own needs or interests and attain own goals that promote their well-being and overall personal development. Given the focus of this orientation on the individual and self-development, in the present study this orientation has been termed as Self-now focused goal orientation. Thinking of the goals central to the Self-now focused goal orientation of the present study, we may conclude that these are similar to the goals defining a general mastery goal orientation and the

learning/development goals that mastery oriented pupils are expected to try to pursue in social situations as suggested by Dweck and Leggett (1988).

Pupils in the Self-future focused goal orientation go to school to attain the same goals as pupils in the Self-now focused goal orientation. Pupils in the Self-future focused goal orientation try to attain these goals because of their consequences or implications in a future time perspective, however. They are also planning to use the outcomes of these goals as a means to attain other personally relevant goals situated in the nearest or a more distal future. Considering the content of these pupils' future goals (e.g. to prepare for adult life, gain access to future education, acquire a profession and a job and to support themselves and/or a family), we may conclude that they are identical to the goals that have been identified in studies on adolescents' orientation towards the future (for reviews see e.g. Nurmi, 1991; Malmberg, 1998).

The future goals that pupils in the Self-future focused goal orientation are trying to attain by going to school and learning involve two additional types of goals. The first type of goals reflects a quest for self-determination. That is, to have the freedom to make choices (see Self-determination in the Self-assertive social relationship goals, in Ford, 1992, and self-determination or autonomy in the intrinsic motivation theory of Deci and Ryan, 1985). Hence, for pupils in this orientation, going to school and learning is about being able to make choices in the future, such as to enter education programs of their own choice at different educational levels or get a job of their own choice. The other type of goals reflects a quest for personal freedom. That is, to become independent of others (see Individuality in the Self-assertive social relationship goals, in Ford, 1992).

In summary, although school is compulsory for all children in Sweden, pupils in the Self-future goal orientation go to school and engage in the tasks and activities that take place there because they want to prepare for adult life and structure their future to promote their personal development within more distal contexts. As noted already, the source of this type of motivation is the pupils themselves or the self, but this type of motivation is mainly future oriented. Given this interpretation, this orientation towards school and education has been termed Self-future focused goal orientation.

In goal orientation theory, the goals to surpass normative standards, perform better than others, seek public recognition for this and gain positive and avoid negative evaluations of social attributes, are characteristic for pupils operating under a performance goal orientation (Ames, 1992; Dweck & Leggett, 1988).

Moving on to the goals central to the Preventive-future focused goal orientation, we may conclude that these are similar to performance goals. As mentioned already, pupils in the Preventive-future focused goal orientation are not only aware of the reasons as to why other people, the state or society and the labour market want them to go to school, but have also accepted these reasons and are willing to make efforts for attaining the demands and goals set by them. The interpretation that these pupils may be willing to adapt or conform to societal reasons for going to school and learning is emphasised by statements where they reason about the acquisition of social knowledge in school. In this goal orientation, social knowledge is not expressed in terms of "understanding," "listen to" or "taking account of other people" as is the case within the two Self-focused goal orientations (see definition of social competence, e.g. Durkin, 1995), but in terms of "good manners," "discipline" and "moral rules" (see definition of social responsibility, e.g. Wentzel, 1989).

In the Preventive-future focused orientation, acquiring social knowledge and/or developing social competence (or social responsibility) in school are not only expected to enable pupils to deal with the demands and behavioural expectations of the classroom (Wentzel, 1989), but are also anticipated to help them play their roles as members of a future society well. Expressed differently, for pupils in this orientation, going to school and learning is not only something you must do as a child, but also something you must do as member of the present and the future Swedish society. Statements within this orientation suggest that by going to school and learning pupils in this orientation want to prepare for the future where they will have to take over the running of Sweden.

According to Dweck and Leggett (1988) the social goal to engage in actions in order to prove to oneself and to other people that one is a responsible person is characteristic for pupils operating under performance goals in the social domain. One of the reasons as to why pupils in the Preventive-future focused goal orientation are willing to fulfil goals set by others or to identify themselves with external goals may be because these goals are associated with their survival as adults. In this goal orientation, going to school and acquiring the knowledge, skills and competencies that are taught in school is perceived as the only way for pupils to prevent personal feared-for-situations to become reality in the future. One of these feared-for-situations is not being able to attain a "good" future job, or a job, in general.

However, research findings within intrinsic and extrinsic motivation and goal orientation suggest that the adoption and the pursuit of task-intrinsic learning

goals in school is desirable because such goals reflect self-initiated challenge and attempts at mastery. In contrast, the adoption and the pursuit of various types of socially defined goals (including social responsibility goals), such as conforming to certain rules and social obligations in the classroom or societal norms and values and moral codes in society, is not because such goals have the potential to produce maladaptive learning behaviour. Maladaptive learning behaviour refers to challenge avoidance and low persistence in the face of difficulty (Dweck, 1986; Dweck & Leggett, 1988). But are all socially and societal defined goals (i.e. extrinsic or performance goals) to be considered as leading to maladaptive learning behaviour? According to Wentzel (1989) the answer is no. In her studies social responsibility or behaving responsibly in the classroom have been found to enhance the learning process (see also Nakamura & Fincks, 1980; Reuman, Atkinson & Gallop, 1986).

The question whether all social goals lead to maladaptive learning behaviour has also been raised by Dweck and Leggett (1988). According to Dweck and Leggett (op. cit.) there may be also "adaptive performance concerns" that may lead pupils to challenge seeking and high, effective persistence in the face of obstacles, as well as enjoyment while exerting effort in pursuing performance goals, in the same way as the "adaptive mastery concerns" are thought to do when pupils pursue learning or mastery goals (see also Niemivirta, 1996; Skaalvik, 1977). Adaptive pupils or pupils with adaptive performance concerns are considered to be those with high perceived ability (i.e. high confidence in intelligence) and who manage to co-ordinate or integrate performance goals (i.e. social goals) with learning goals.

In a study by Peltonen and Niemivirta (1999), adaptive pupils have been termed as "achievers". Achievers are thought to be more ambitious or eager to gain success in their schoolwork than other pupils, and to prefer the competitive and active nature of classroom activities. That is, they like to be noticed and participate during lessons which, in turn, is thought to result in higher achievements in school.

Thinking of all the integrative goal orientations identified in the present study and which integrate different aspects of externally motivated actions with internally motivated actions, it is suggested here that all of them may involve adaptive performance concerns. Considering the content of the Preventive-future focused orientation it is suggested here that this orientation in itself may involve adaptive performance concerns. This assumption is based on research findings suggesting that feared-for-situations have a disciplinary function and motivate

pupils to work for the attainment of positive short- and long-term goals, which will give a guarantee for positive and promising "ideal" situations in the nearest and the long-term future (Deci & Ryan, 1985; Wigfield & Eccles, 1992; Nurmi, 1989). This assumption is based also on pupil statements within this orientation, which suggest that pupils demonstrating a Preventive-future focused goal orientation have high confidence in their capacities to attain such goals. As noted already, high confidence is one of the main characteristics of "adaptive pupils".

In Dweck & Leggett's goal orientation theory the performance goal orientation that is associated with maladaptive learning behaviour is termed "helpless" (op. cit. 1988). In the study by Peltonen and Niemivirta (1999), which is based on Dweck and Leggett's goal orientation theory (1988), a helpless orientation was found among "avoiders". Avoiders are thought to be pupils who have little interest in schooling. Peltonen and Niemivirta (op. cit.) suggest that "avoiders" have learned or convinced themselves not to value learning because of their previous experiences of failure. In order to protect their self-esteem and self-worth these pupils have been found to turn to different types of self-protecting or self-damaging strategies (see Covington, 1992). Such strategies are suggested to be indicators of insufficient study skills or beliefs of being incapable, but also of boredom with school tasks.

In the present study, pupils who indicate an "avoiding" motivational orientation towards school and education, or who do not value learning positively, indicate a lack of meaning in schooling and boredom with school tasks are found within the Neg/critical focused goal orientation. Given the content of the Neg/critical focused goal orientation it is suggested here that this kind of "avoiding" goal orientation does not need to be due to lack of intellectual capacities or insufficient study skills, but can also be due to characteristics of the classroom and educational practices. As noted already, the tasks and activities that are taught in school may be boring for pupils (i.e. incapable of catching the pupils' interest or to challenge them) (Wentzel, 1989; Deci & Ryan, 1985) or too hard for some pupils (i.e. producing anxiety) (Ames, 1992). The way of introducing different tasks and activities in school may be insufficient as well. As a consequence, some pupils may have difficulties in understanding the relevance and the meaningfulness of the content that is taught in school and thus may not become engaged and involved in school work in the ways that teachers want them to.

A slightly different idea to the above has been suggested by Wentzel (1989) who stresses that lack of interest in school work and subsequently academic

failure may also be due to an unwillingness of some pupils to conform to the intellectual requirements of school and social expectations for behaviour. This unwillingness may be expressed by behavioural patterns of passivity, aggressivity or self-damaging strategies (see e.g. Kokko, Pulkkinen & Puustinen, in press). The unwillingness of some pupils to conform to extrinsic structures, controls and rewards may lead them to finish up in difficulties in school and obtain achievements outcomes that are lower than their actual intellectual potential and capabilities, however. Wentzel's description of this group of pupils coincide with characteristics of the Neg/critical goal orientation of the present study.

Drawing any conclusions about what exactly causes critical, negative and even rejecting attitudes towards school and education as expressed by pupils within the Neg/critical focused goal orientation is quite difficult. What we could say is, however, that pupils indicating this kind of attitudes may represent a high-risk group. This is because these pupils may develop negative feelings towards themselves and negative social behaviour to a larger extent than other pupils. If no efforts to change the education system in ways that fit with the pupils' own needs, interests and goals to go to school, pupils who experience this kind of negative affections towards school may drop out of the education system. And that would be a waste of human capital, in my opinion.

Future goals

Although in the present study a different methodology than the methodology in intrinsic and extrinsic motivation and goal orientation research (i.e. questionnaires with closed-ended questions or laboratory procedures) has been used, similar motives and goals for learning in school are observed. There are, however, some important differences between the approach central to the present study and the approach in intrinsic and extrinsic motivation and goal orientation.

The results from the present study suggest that pupils have a variety of perceptions, thoughts and beliefs about school and education and a variety of personal motives and goals for going to school. The notion that pupils are able to and are actually trying to attain a variety of goals (i.e. multiple goals) in school is central to the interactionist approach to motivation (Ford, 1992; Wentzel, 1998; Heckhausen, 1991). Central to the goal orientation theory of Dweck and Leggett (1988) is the notion that pupils are trying to fulfil one set of goals at a time (i.e. cognitive goals or mastery vs performance). Other goal orientation theorists suggest that it is possible for pupils to have a mixture of different goals (i.e. mastery and performance goals) (e.g. Nicholls et al., 1989), but they are still

struggling with the best way to operationalize multiple goals in their research (Pintrich & Schunk, 1996). Moreover, although it has been suggested that pupils may be high on intrinsic motivation and extrinsic motivation at the same time, intrinsic and extrinsic motivation are still operationalized as two ends of a continuum.

Intrinsic and extrinsic motivation and goal orientations refer, in addition, to motives and goals that are to be fulfilled in a here-and-now perspective. The Self-future and the Preventive-future focused goal orientations of the present study, as well as the different integrative orientations in which aspects of the two are involved, involve goals that are to be attained in a here-and-now perspective at the same time as their outcomes are to be used as a means to attain personally relevant goals of a future character. Given these important differences, how is it possible to find the similarities between the goal orientations identified in the present study and intrinsic and extrinsic motivation and goal orientations?

With respect to the similarities with goal orientations, one explanation may be the one suggested by Niemivirta (1998b). He notes that by using a why-question as a research question the goals that will appear in the responses will refer to both lower-level and higher-level goals. Lower-level goals may be goals to be attained in a here-and-now perspective, while higher-level goals may be goals to be attained in the nearest or a more distal future. In Niemivirta (op. cit.) a higher-level goal (or goals) is expected to provide a suitable reason (or reasons) for attaining a goal (or goals) situated at lower levels. According to Niemivirta (op. cit.) goal orientations are examples of such higher-level goals.

The application of this approach to the different sets of goals central to the Self-now focused goal orientation of the present study would then imply the following. The reason as to why pupils within this orientation try to acquire different kinds of knowledge (including social knowledge), abilities, skills and competencies in school (lower-level goals) is because these goals are important and useful to them as developing persons in a here-and-now perspective and most important in order to attain mastery and improvement (higher-level goal). To try to attain mastery and improvement is the general definition of the mastery goal orientation (e.g. Dweck & Leggett, 1988; Nicholls, 1979, 1984). Moving on to the reason as to why pupils in the Self-future focused goal orientation try to attain mastery and improvement in school in a here-and-now perspective is because they want to structure their own lives and future by making personal choices (higher-level goal). In this way, pupils in the Self-future focused goal orientation may continue to develop as persons also in a future time perspective. To try to

make choices is the general definition of the self-determination (autonomy) view of intrinsic motivation proposed by Deci and Ryan (1985, 1991).

The interpretations suggested above require that intrinsic and extrinsic motivation and goal orientations are defined as personal disposition or individual difference variables and that motives and goals have a hierarchical structure. That is, that some motives or goals will end up as more important or more compelling to the individual than others (see goal hierarchies, in Ford, 1992, Heckhausen & Kuhl, 1985, and need hierarchies, in Maslow, 1954). Very little is known about the structure of motives and goals and how individuals organise their motives and goals, however (Pintrich & Schunk, 1996). An noted in the theoretical part, there is a disagreement among goal orientation theorists on the issue of whether a goal orientation is more situated and contextual or if it is more of a personal disposition or individual difference variable (Pintrich & Schunk, 1992), while goal theorists generally seem to agree on that goals are personal disposition variables (Ford, 1992). Deci and Porac (1978) have argued that intrinsic motivation is a personal disposition variable as well. According to these researchers intrinsic motivation is an innate human need that beings in infants as an undifferentiated need for competence and self-determination. This position is quite similar to that of White (1959) as well as of Maslow (1954) and Murray (1938). Other researchers suggest that intrinsic motivation is contextual and refers to how individuals view activities. As such intrinsic motivation can vary over time and with changes in circumstances (Pintrich & Schunk, 1996).

Niemivirta (1999b) has conceptualised goal orientations from a dispositional point of view, however, suggesting that a goal orientation can be seen as a personal factor that contributes to the individual's selections of different goals, representing the individual's preferences for certain types of desired end-states (see also Ford, 1992). Desired end-states refer to objects, events, states or experiences. That is, the goals that the individual desires most of all and strives to attain (see also action theory, e.g. Oppenheimer, 1991a, 1991b).

Schunk (1990) has discussed the importance of proximal (i.e. short-term goals) and distal goals (i.e. long-term or future goals) for achievement behaviour, suggesting that for pupils proximal goals work better than more distal goals. Schunk also noted that more specific goals appear to engage pupils in the task more than do general goals such as "work hard". According to Ford (1992) and Wentzel (1989, 1991a, 1991b), pupils who are most successful in classroom settings (at least in terms of high grades) are more likely to pursue multiple goals, however, involving both proximal and distal goals. In the present study, the goal

orientations that involve both proximal and distal goals, with emphasis on the pursuit of distal goals, are the Self-future and the Preventive-future focused goal orientations and the different types of integrative motivational orientations in which aspects of the two are involved.

Studies conducted by Pulkkinen (1990) and Trommsdorff (1986) suggest also a positive relationship between a combination of proximal and distal goals and achievement. These researchers suggest that the extent to which adolescents prepare themselves for adulthood is reflected in part by their "future time perspective". This perspective involves adolescents' awareness of the structure of the future and the relationships between present activities, choices and later outcomes. The research here show that high achievement and other accomplishments in school associate positively with a future time perspective as adolescents who are aware of the connection between schoolwork and exam results are likely to fare better than peers who are not aware of the link. According to Pulkkinen (1990) a better future-time orientation relates also to positive retrospective appraisals of family life and the amount of interest that parents have shown in the development and plans of their children during adolescence (see also Marjoribanks, 1987, 1991). In the present study, reasons as to why parents want their children to go to school and learn, seen from the pupils' perspective, are involved in the Others-now and the Preventive-future focused goal orientations.

In the next chapter, the importance of all these different types of goal orientations identified in the present study for achievement over time is investigated.

CHAPTER 5

MOTIVATION AND ACHIEVEMENT

In the previous chapter different ways of viewing school and education and the pupils' own reasons for going to school have been conceptualised as the general characteristics of different goal orientations towards school and education. The purpose of this chapter is to relate these goal orientations to individual data and specifically academic achievement in grade six and eight in the Swedish compulsory school.

According to Schunk (1991), pupils' motivation determines what, when, and how they learn. As suggested by Pintrich and Schunk (1996), it may be easier to think of pupils' motivation as reciprocally related to learning and performance, however, implying that motivation influences a pupil's performance outcomes at the same time as what a pupil does and learns influences subsequent motivation.

Research findings show that pupils who have high self-perceptions of competence and ability (Harter, 1985; Dweck & Leggett, 1988) and high self-esteem (Wigfield & Karpathian, 1991) do not give up their efforts to learn and to perform well in school, but try continuously by changing their goals or changing the means to reach their goals. However, pupils who fail in their attempts to do this and have low self-evaluations have been found to turn to different types of self-protecting (or self-damaging) strategies and to refrain from setting up new goals (Skaalvik, 1997). This is because they think they will not succeed anyway and that they blame themselves for the failure.

Research on intrinsic and extrinsic motivation shows that intrinsic motivation can promote learning and performance better than can extrinsic motivation (Pintrich & Schunk, 1996). For instance, by using experiments Glass and Singer (1972) have shown that when individuals feel they have control over their environment, they tolerate aversive stimuli better and perform at a higher level. As noted already, according to Deci and his colleagues (Rigby, Deci, Patric & Ryan, 1992) intrinsic motivation and integrated regulation are expected to result in more cognitive engagement and learning than external or introjected regulation. Although the position of Rigby et al. (1992) about how extrinsic

motivators may become internalised and part of the pupils' own self-schema is somewhat provoking it has important implications for educational practice and has generated much research.

With respect to goal orientation theory this suggests that if pupils adopt a mastery orientation towards their academic work they will be focused on learning and improvement but if they adopt a performance orientation their focus will be on demonstrating ability or besting the performance of other pupils. Irrespective of the specific goals associated with a mastery and a performance goal orientation, in the literature, these goal orientations are suggested to create frameworks for processing incoming information (Elliott & Dweck, 1988) and are thus expected to affect the way individuals interpret situations and respond to events (cf. Ames, 1992). Consequently, the goals or the specific goal orientation adopted by pupils are assumed to set the stage for further activity engagement and, thus, subsequent performance outcomes.

Most research on mastery and performance goals has consistently found evidence for a positive relationship between mastery and productive performance behaviours, and sometimes the opposite relationship between performance goals and productive performance behaviours. As noted already, according to the goal orientation model of Dweck and Leggett (1988), when confidence in ability is high, performance goals can produce mastery-oriented behaviour, but when confidence is low, performance goals will produce "helplessness".

In addition to the research on mastery and performance goals, there is growing evidence that the simultaneous pursuit of both extrinsic and intrinsic goals (i.e. performance goals and mastery goals) can be positively related to performance behaviour. For example, Nakamura and Fincks (1980) demonstrated that higher achievement in evaluative situations is associated with a combination of social and task-related goal orientations rather than task-related goal orientations only. Similarly, Reuman, Atkinson, and Gallop (1986) reported that attempts to master tasks and gain social approval may combine additively and increase the likelihood of positive performance behaviour.

The research conducted by Wentzel provides further information about combinations of extrinsic and intrinsic goals. Wentzel (1989) found high GPA (grade point average) pupils to be primarily concerned with the pursuit of social responsibility goals (i.e. they wanted to get things done on time, be dependable and responsible and earn approval from others) and learning goals (i.e. to understand things and to learn new things). Medium GPA pupils were on the

other hand primarily concerned with the pursuit of social interaction goals (i.e. to make or keep friendships and to have fun) and social responsibility goals (cf. high GPA pupils), while low GPA pupils demonstrated primarily the pursuit of social interaction goals. Medium and low GPA groups were found to strive for similar goals, while the goals for the high and low groups were found to differ the most.

The high GPA group differed also in the sense that these pupils reported trying to achieve more goals than did pupils in the other two groups. For instance, 84% of the high GPA pupils reported always trying to achieve at least three goals. These goals were to be a successful pupil, to be dependable and responsible, and to get things done on time. Only 33% of these pupils indicated that they were always trying to have fun in class at school. In contrast, only 13% of the low GPA group reported always trying to achieve the above three goals. Among the low GPA pupils 69% reported that they were always trying to have fun and to make or keep friendships at school. Of particular interest is the finding that as many low GPA pupils reported always trying to learn as did medium GPA pupils. In short, the low GPA pupils differed from the other two pupil groups (i.e. the high and medium GPA pupils) in that fewer reported always trying to pursue social responsibility goals.

Wentzel (1989) suggests that the classroom grades that pupils will be assigned by the teachers will reflect their social behaviour and status as well as academic competencies, that is, the type of goals that they are trying to pursue in school and their way of acting towards the attainment of these goals. According to Wentzel (op. cit.), the nature of individual pupil behaviour has an impact on academic achievement depending on teachers' impressions of and attitudes toward these pupils. Research findings show, however, that pupils who are well liked by teachers tend to get better grades than those who are not as well liked (for a review of this type of research, see Wentzel, 1989).

These suggestions by Wentzel are made on the basis of comparisons of classroom grades and SAT scores (i.e. scores on the Scholastic Aptitude Test) (Wentzel, 1989). These comparisons showed that the motivational concerns of the classroom, that is, the goals and the standards for performance related to achievement in the classroom, are not related to achievement on standardised tests. The research findings showed that the goal priorities of the SAT groups were the opposite of those found for the GPA groups. In particular, in contrast to the GPA groups, the high SAT pupils were characterised by a relative lack of concern with social responsibility goals, when compared to the medium and low SAT pupils. Of particular interest is the finding that high SAT pupils who clearly

had high ability (but not necessarily the highest grades) showed motivational patterns very similar to those of the low GPA pupils in that they reported trying to earn approval and do their very best in school less frequently than did other pupils. On the basis of these kinds of findings, Wentzel suggested that in contrast to classroom grades, which are thought to reflect social as well as academic competencies, high scores on standardised tests reflect only academic competencies, that is, specific intellectual skills and aptitudes (see also Wentzel, 1991b, 1991c; Kelley, 1958).

In short, Wentzel's research suggests that failure to achieve in school may not be the sole reason for maladaptive motivational patterns in the classroom. In addition, unwillingness to conform to social expectations for behaviour may also help to explain less than optimal performance.

THE MULTIDIMENSIONALITY OF SCHOOL GRADES

Gustafsson and Balke (1993) and Andersson (1998) have investigated the dimensionality of grades in Swedish compulsory school by a hierarchical modelling approach (see Gustafsson, 1984, 1988, 1989). Gustafsson and Balke (1993) found that grades in Swedish compulsory schools reflect a general school-achievement factor (GENACH), which influences each and every single observed grade, and domain-specific achievement factors in areas such as science-mathematics, social science, language and spatial-practical performance. The highest loadings on GENACH are obtained for the subject matters within the social science and language domains, while Physics and Mathematics have lower loadings. On the basis of this pattern of loadings Gustafsson and Balke suggested that the GENACH factor "most likely reflects a considerable motivational component, and it seems to be most central in those subject matters which pose heavy reading requirements and which require much home work" (op. cit., p. 426). The findings of the Andersson study (1998), in which the Gustafsson and Balke model has been used as a point of departure, provides additional evidence for this suggestion.

Andersson (1998) analysed marks from 17 different subject-matter areas, obtained by approximately 100.000 pupils (15-16 years old). She fitted a model with a general school-achievement factor (SchAch) and domain-specific achievement factors in mathematics-science (Mathsci) and language (Lang). The SchAch factor was found to be positively related to each and every grade,

explaining 90% of the total variance. The highest loadings were obtained for the social-sciences subjects. Two other broad factors were also found: a non-verbal factor (Non-verb, or spatial-practical) related to achievement in areas such as domestic science, physical education, crafts, mathematics and music; and an aesthetic factor (Ad) related primarily to child studies, domestic science and art education. In addition, an analysis of sex differences revealed important differences in the factor means where SchAch, Lang and Ad favoured girls and Non-verb and Mathsci favoured boys.

GENDER DIFFERENCES

Research findings suggest that boys tend to score higher than girls on science and mathematics achievement tests, while girls show higher average performances on most of the verbal school achievement tests (Rosén, 1998). Girls have, in addition, consistently been reported to have been awarded higher average school grades than boys, at least in Scandinavia (Emanuelsson & Fischbein, 1986; Undheim & Nordvik, 1992; Niemivirta, 1997).

In studies conducted by Rosén (1998) the established pattern of mean differences between boys and girls in latent dimensions of cognitive abilities, showing boys to do better in cognitive tasks requiring numerical and mechanical reasoning or visual-spatial processing (e.g. Halpern, 1992) and girls to do better in tasks requiring verbal abilities (e.g. Emanuelsson & Svensson, 1990), was challenged. In a study by Rosén (1995), boys were found to have remarkably higher means on the narrow dimension of Verbal vocabulary (V'), and a rather large difference in *g* (i.e. general intelligence) to the girls' advantage. A substantial advantage on *g* for girls was also found in a study by Härnqvist (1997).

With respect to goal content, female achievement is most often attributed to the pursuit of affiliation or social approval goals whereas male achievement is attributed to the pursuit of superiority or competitive goals (Wentzel, 1989). The generalisation of these findings to the classroom context is, however, not obvious. For instance, the study by Wentzel (1989) indicated that with the exception of efforts to help others (to the girls' advantage), girls and boys pursued a variety of both social and academic goals with equal frequency. The high GPA group in Wentzel's study was composed of more girls than boys, however.

Research on gender differences in goal orientations does not provide clear results either. For example, some of the research by Dweck (see Dweck, Davidson, Nelson & Enna, 1978; Henderson & Dweck, 1990) showed gender differences, with females being more performance oriented and more likely to endorse entity theories of ability, which are thought to result in more maladaptive patterns of attributions. In contrast, Meece and Holt (1993) found that girls were more likely to have learning as a primary goal, whereas boys were more inclined to have performance goals. Many studies do not find maladaptive patterns among females (e.g. Eccles 1983), however, so it is not clear that females would be less mastery oriented and more performance oriented. For instance, the research of Niemivirta (1997) provides new evidence against the assumption that girls adopt a superficial approach to learning (cf. Emanuelsson & Fischbein, 1986) and that although boys had high self-confidence and positive self-perceptions, they were significantly more inclined towards performance goals and reported using more surface level learning strategies (i.e. rote learning and detail memorising) than girls. In most of the empirical studies on goal orientation, gender differences have not been reported as significant, so there may not be large differences in goal orientations associated with gender.

In an attempt to explain why Swedish girls at the upper level of compulsory school do less well in the science subjects than boys, Staberg (1992) suggested that boys have a practical learning approach to science, whereas girls have a theoretical approach. In Staberg's study, boys' learning style was characterised by play, and girls' by work, suggesting that girls might seek a more "connected knowledge," while boys might treat science subjects in a more "playful" way. According to Rosén (1998) the superiority of males' performances on mathematics tests, and other domain-specific subject areas, may be because they nurture their numerical achievement skills, and other specific capacities tied to particular subject domains, to a higher degree, while females nurture their general cognitive capacities. In summary, boys seem to specialise, while girls seem to develop capacities useful for managing broader fields of cognitive problems (see also Eccles, 1987).

Ve (1991) has argued that males and females partly develop different rationalities, and rationales for action, and that their basis for doing so is interests and values, which in turn are based on the division of labour. Females more than males are socialised into taking the well-being of others into account, a habit which they bring with them into the learning environment, while males more than females are socialised to consider their individual interests. This suggestion is

in line with the finding obtained by Wentzel (1989), showing girls to try to help others more often than boys.

HYPOTHESES TO BE INVESTIGATED

Before I go on with specifying hypotheses to be investigated in the present study, a brief description of the different goal orientations involved in the analyses of the relationships between pupil motivation and achievement will be provided (see Table 31). Note that in this study the nine different types of integrative goal orientations displayed in Table 30 in the previous chapter under the heading "Integrative goal orientations 2" have been put together into one goal orientation termed Integrative. The total number of goal orientations to be related to achievement in this study has thus been reduced to eight.

Table 31. Brief descriptions of each of the eight goal orientations.

Self-now:	Positive views of school, the teachers and the school content. Focus on learning and self-development in a here-and-now perspective.
Self-future:	Positive views of school, the teachers and the school content. Focus on the long-term consequences of learning and self-development and a desire to use attained outcomes as a strategy to structure the future and adult life.
Others-now:	Going to school and engaging in the school content because society, the labour market, and/or the parents require that.
Preventive- future:	Going to school and engaging in the school content because of a self-defined request. Focus on the prevention of personally relevant fears with respect to the future by learning and a social responsibility towards society, the labour market and other people.
Self-now + Self-future:	Integrative goal orientation. Focus on learning, self-actualisation, self-determination, self-growth and well-being through the realisation of own potentials and capacities in a here-and-now and a future perspective.
Others-now + Preventive- future:	Integrative goal orientation. Focus on the attainment of requirements set by authorities, and a willingness to achieve for the best of oneself, society, the labour market and other people.
Integrative:	Integrative goal orientation. Involves nine different goal orientations, which integrate various internal and external sources of pupil motivation.
Neg/critical:	Negative and critical views of school, the teachers and the school content. Involves no personal reasons for going to school, but indicates an avoidance orientation towards school and education.

As already noted, there is disagreement among goal orientation theorists on the issue whether a goal orientation is more situated and contextual or if it is more of a personal disposition. The assumption that has been adopted in the present study is in line with the one suggested by Niemivirta (1999b; see also Mischel, 1990). Niemivirta (1999b) suggests that a goal orientation is a characteristic of the individual; a personal factor that contributes to the individual's selection of or preferences for certain types of goals. However, irrespective of this assumption, the goals that individuals are striving for are thought to guide and regulate their cognition and action (Ford, 1992).

Given the assumption of a goal orientation as a personal disposition and goals as the guides of cognition and action, I expect the goal orientations that pupils in the present study may hold towards their school work to set the stage for further activity engagement and thus to influence achievement outcomes over time. Moreover, I expect pupils within the Integrative goal orientation to do better in school than pupils in the other goal orientations both in a here-and-now and in a future perspective. This is because pupils within the Integrative goal orientation have been considered as combining different external and internal sources of motivation towards school and education and to strive for extrinsic/performance and intrinsic/learning goals (or vice versa) simultaneously. Also pupils within the Self-now goal orientation are expected to do well in school, given the similarities between this orientation and intrinsic motivation as well as the mastery goal orientation discussed in the previous chapter.

Considering the research findings on the multidimensionality of school grades, the present study aims, in addition, to investigate whether the goal orientations summarised in Table 31 are differently related to general and domain-specific achievement factors.

In the present study, no clear expectations or hypotheses with respect to gender differences in goal orientations are formulated. One of the aims of the present study is, however, to investigate if patterns of achievement might differ according to gender and goal orientation. In Table 32 the number of boys and girls involved in the eight goal orientations is displayed.

Table 32. Frequency of boys and girls within each of the eight goal orientations.

Goal orientations	Boys	%	Girls	%	Total
Self-now	1389	18.9	876	11.9	2265
Self-future	498	6.8	487	6.6	985
Others-now	473	6.4	386	5.2	859
Preventive-future	150	2.0	182	2.5	332
Self-now + Self-future	506	6.9	750	10.2	1256
Others-now + Preventive- future	48	.7	98	1.3	146
Integrative	436	5.9	762	10.3	1198
Neg/critical	197	2.7	129	1.8	326
Total	3697	50.2	3670	49.8	7367

METHOD

In the present study, achievement in school was measured by a standardized achievement test in mathematics in grade 6 (i.e. 1995), consisting of 20 paper-and-pencil tasks (alpha=.83). Responses to this test were scored as 0 (incorrect selection) or 1 (correct selection), and summed into a raw score. The reason for choosing this test as an achievement measure in grade 6 is simply that it was the only one available within the ETF project. Standardized achievement tests in Sweden are not given to pupils until in grade 9. The total number of pupils who received the standardized achievement test in mathematics in grade 6 is 7607. The mean score for the number of pupils who completed this test is 10.10, while the standard deviation is 4.42 (n=7186).

To test the hypothesis that the different goal orientations identified in the previous study will have different long-term implications for school achievement the course grades in 14 subject-matter areas (Swedish, English, mathematics, physics, chemistry, biology, natural science, history, religious studies, civics, geography, social science, music and art education) will be used as criterion variables. The course grades were collected when the pupils were in the 8th grade (in 1997) in compulsory school. This pupil cohort (born in 1982) is the first cohort in Sweden who received grades according to a new grading system. This new grading system ranges from Pass a school subject, to Pass with distinctions, and Pass with excellence. Pupils who do not reach the educational goals set for a particular school subject, will not be given a grade (Statistics Sweden, 1997). In the present study, the pupil grades have been scored as 0 (Not passed the subject), 1 (Pass), 2 (Pass with distinction), or 3 (Pass with excellence). Note also

that in Sweden grades are not awarded until the first term in grade 8 in compulsory school (i.e. at the age of 14-15 years).

However, not all pupils participating in the present study have received grades in all subject-matter areas in grade 8. Some pupils have received a combined grade for natural science subjects (16%) and some for social science subjects (37%), which is an option available to schools in Sweden. This option causes pupils by necessity to miss some grades. In the present study, the problem of missing data in the pupil data has been dealt with through using the missing data modelling option available within the Amos 4.0 (Arbuckle & Wothke, 1999) program. In this modelling approach cases with valid scores on the same subset of variables are grouped together and a separate covariance matrix is computed for each subset. The analysis then weighs the separate matrices into a total matrix, which represents the population matrix, under the assumption that the missingness is random given the information in the data.

In addition, relatively many pupils lack one or more of the individual grades in the aesthetic subjects of music and art education. The lack of individual grades seems to a large extent to be due to organisational circumstances in the application of the new grading system, however, and not to poor achievements with respect to the pupils participating in the present study. The problem that some pupils lacked individual grades in these domains has been dealt with using missing data modelling as well.

RESULTS

Motivation and achievement in grade 6

The first hypothesis to be investigated in this section is that the eight different types of goal orientations identified in the previously presented study (see Chapter 4) will differentiate between pupils' levels of school achievement, as measured by the standardised achievement test in mathematics in grade 6. In this section, gender-related differences in achievement within each goal orientation are examined as well.

The initial step in the analysis of the data was to calculate the pupils' average scores on the standardised achievement test in mathematics for each of the eight goal orientations. In the next step separate 8 x 2 (orientation x gender, i.e.

boys/girls) analyses of variance (ANOVAs) were conducted to test if gender and goal orientation relate to the scores and if there is an interaction between the effects of goal orientation and gender.

Table 33 displays the results of ANOVAs with pair-wise comparisons on the achievement test in mathematics in grade 6 for the eight goal orientations. In Table 33 the eight goal orientations are ranked on the basis of descending scores on the achievement test in mathematics.

Table 33. The results of ANOVAs with pair-wise comparisons (p-values) on the achievement test in mathematics in grade 6 for the eight goal orientations.

Goal Orient		Integr	Self-f	Oth-n	Prev-f	Self-n + Self-f	Neg/cr	Self-n
	Mean	10.88	10.78	10.43	10.37	10.35	9.60	9.24
O + P	12.06	.00	.00	.00	.00	.00	.00	.00
Integr	10.88		.00	.00	.00	.00	.00	.00
Self-f	10.78			.00	.00	.00	.00	.00
Oth-n	10.43				.89	.00	.00	.00
Prev-f	10.37					.00	.00	.00
Sn + Sf	10.35						.00	.00
Neg/cr	9.60							.00
Self-n	9.24							

As can be seen in Table 33, the highest achievement on mathematics is shown by pupils within the Others-now plus Preventive-future goal orientation (mean=12.06). The next highest achievement on mathematics is shown by pupils within the Integrative goal orientation. Hence, pupils within the latter goal orientation do not achieve significantly better on mathematics in grade 6 than all other pupils as was expected. As noted already, pupils within the Integrative goal orientation have been considered as pursuing extrinsic/performance goals and intrinsic/mastery goals (or vice versa) simultaneously, which in research on multiple goals has been shown to promote learning and performance better than the pursuit of one type of goals at a time (Wentzel, 1989; see also adaptive pupils, Peltonen & Niemivirta, 1999).

However, pupils within the Others-now goal orientation do not differ in achievement from pupils within the Preventive-future goal orientation (mean=10.43 vs. 10.37).

Pupils within the Neg/critical goal orientation did better on mathematics than pupils within the Self-now goal orientation (mean=9.60 vs. 9.24), who evidence the lowest achievement on mathematics as compared to pupils within six of the eight investigated goal orientations. Given the latter result, we may conclude that pupils within the Self-now goal orientation did not do well as was expected either. As noted already, the content of this goal orientation is similar to intrinsic motivation, which is expected to promote learning and performance better than extrinsic motivation.

Table 34. The results of ANOVAs with pair-wise comparisons on the achievement test in mathematics in grade 6 for the eight goal orientations and gender.

Goal Orient			Integr	Self-f	Oth-n	Prev-f	Self-n + Self-f	Neg/cr	Self-n
	Mean Boys	Mean Girls	11.19 vs. 10.70	10.96 vs. 10.60	10.41 vs. 10.47	10.74 vs. 10.06	10.64 vs. 10.16	9.74 vs. 9.38	9.44 vs. 8.92
O + P	13.09	11.54	.00	.02	.00	.00	.02	.00	.00
Integr	11.19	10.70		.00	.00	.00	.01	.15	.00
Self-f	10.96	10.60			.03	.01	.01	.00	.01
Oth-n	10.41	10.47				.28	.00	.00	.07
Prev-f	10.74	10.06					.00	.00	.03
Sn + Sf	10.64	10.16						.04	.00
Neg/cr	9.74	9.38							.00
Self-n	9.44	8.92							

The results of the ANOVA analyses displayed in Table 34 suggest in addition that there are gender-related differences in achievement within most of the goal orientations. Thus, irrespective of which type of goal orientation pupils may hold towards their studies in school, the pattern of gender-related differences in achievement in grade 6 is in accordance with the one generally observed in Sweden as well as in other countries. That is, boys score higher on mathematics than girls. The highest achievement on mathematics is evidenced by boys within the Others-now plus Preventive-future goal orientation (mean=13.09).

Table 35 displays the results of ANOVA analyses, which test the interaction between the effects of goal orientation and gender. As can be seen in Table 35, no interactions between goal orientation and gender are evident, however.

Table 35. The results of ANOVAs with pair-wise comparisons on the achievement test in mathematics in grade 6 for the interaction between the effects of the eight goal orientations and gender.

Goal Orient		Integr	Self-f	Oth-n	Prev-f	Self-n + Self-f	Neg/cr	Self-n
	Gender							
O + P		.43	.14	.28	.56	.20	.61	.38
Integr			.57	.53	.84	.98	.83	.74
Self-f				.40	.84	.36	.73	.66
Oth-n					.20	.41	.65	.24
Prev-f						.72	.90	.76
Sn + Sf							.98	.58
Neg/cr								.84
Self-n								

Summarising the findings presented thus far, we may conclude that the eight different types of goal orientations relate differentially to achievement on mathematics in grade 6 and to gender.

Long-term implications of motivation for achievement

In order to investigate the second hypothesis central to this study, that is, that the type of goal orientation pupils hold towards their school work will set the stage for further engagement and thus will have long-term implications for achievement, confirmatory factor analyses with the Amos 4.0 program under the STREAMS modeling environment, version 2.5 for Windows (Gustafsson & Stahl, 2000) was used.

The starting point in the modelling of the long-term implications of the eight different types of goal orientations for achievement was the creation of seven dummy variables. A dummy variable is a dichotomous variable with values of zero and one. In this case, a value of one in the first dummy variable represents the Others-now goal orientation, a value of one in the second dummy variable represents the Preventive-future goal orientation, while a value of one in the third dummy variable represents the Self-now goal orientation, and so on. Pupils with a value of zero in all seven variables evidence the Negative/critical goal orientation and this group is taken to be a reference group. The use of a dummy procedure makes it possible for us to examine the relations between each of the eight investigated goal orientations and achievement dimensions in one model. By letting the seven dummy variables have relations to one or more achievement variables one obtains estimated coefficients, which are equivalent to the mean

differences between each group and the reference group on the manifest (i.e. observed) or latent variable or variables.

In the next phase of the analysis of the data the seven dummy variables were related to the pupils' scores on the standardised achievement test in mathematics in grade 6 (see Mo1 model in Figure 2). This is an ordinary regression model.

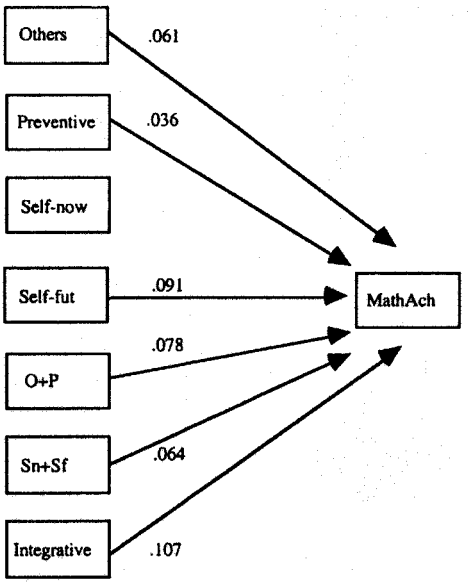

Figure 2. Standardised coefficients for the dummy variables included in the Mo1 model.

Figure 2 displays the estimated coefficients for the relations between goal orientations and achievement in grade 6. These coefficients, which are standardized, express the difference between the reference group and each of the goal orientation groups. All the estimated coefficients for the relations between goal orientations and achievement are significant, except for the Self-now as compared to the Neg/critical goal orientation. This analysis gives thus the same results as the ANOVA, except that it is less detailed and informative. This model may be extended, however.

In the next step, confirmatory factor analyses were conducted on the pupils' course grades (collected two years after the first data collection, i.e. when the pupils were in the 8th grade in compulsory school).

In Table 36, the means and standard deviations for the 14 subject-matter areas, including natural science subjects (NO) and social science subjects (SO) for the pupils by gender are displayed.

Table 36. Means and standard deviations for the school subject variables in grade 8 by gender.

	Boys			Girls		
Subjects	Mean	SD	n	Mean	SD	n
Mathematics	1.35	.72	3549	1.39	.73	3522
Physics	1.35	.71	2838	1.39	.70	2818
Chemistry	1.29	.69	2839	1.41	.70	2820
Biology	1.30	.68	2879	1.51	.71	2862
Natural science	1.32	.73	616	1.47	.75	605
Religious studies	1.21	.61	2236	1.47	.67	2264
History	1.28	.66	2205	1.48	.72	2214
Geography	1.29	.65	2196	1.46	.67	2213
Civics	1.25	.62	2226	1.41	.66	2239
Social science	1.28	.66	1283	1.53	.69	1240
Swedish	1.21	.60	3474	1.57	.68	3459
English	1.27	.67	3537	1.49	.72	3520
Music	1.32	.62	2159	1.50	.68	2133
Art education	1.21	.57	3061	1.52	.66	3057

Pupils who miss all grades have been excluded from the analysis, but otherwise all pupils have been included with the valid scores they have (n=7367).

First the factor analytic model developed by Andersson (1998) was fitted to the course grades for the fourteen school subjects for the whole sample of pupils (n=7367). The Andersson model is based on grades from seventeen different subject-matter areas, having loadings on five different latent variables. In the present study grades will be used from fourteen subject-matter areas, implying that Andersson's original model is modified to some extent.

The model that was fitted to the data is a so-called nested-factor model (NF-model) (Gustafsson & Balke, 1993). In this model (NF) one general school-achievement factor (SchAch) with a relationship to every observed variable was specified, along with three first-order domain-specific achievement factors (Lang, Mathsci and Aesthetic). The chi-square measure for this model is 428.6 with 65 degress-of-freedom, indicating a good fit of the model to the data, considering the large sample size. The missing-data model did not allow computation of any other

goodness-of-fit measure. However, the descriptive pattern of loadings is even more important in evaluating the models. Figure 3 displays the standardised loadings of the fourteen observed variables on the four latent nested factors.

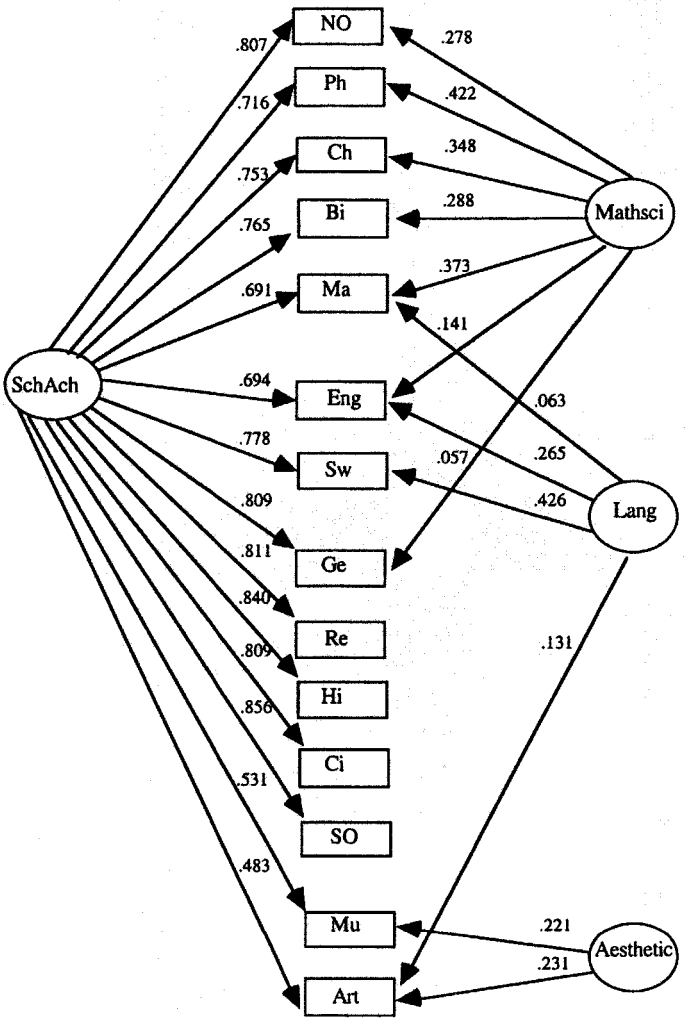

Figure 3. Standardised factor loadings in the NF-model with four nested factors for the 14 school subjects for pupils in grade 8 (n=7367).

As can be seen in Figure 3, the general school achievement factor (SchAch) is positively related to each and every grade. The strongest relations are observed for the social science subjects (SO) (.86), history (.84), religious studies (.81), civics (.81), geography (.81), natural science (NO) (.81) and Swedish (.78) followed by biology (.77), chemistry (.75), physics (.72), English (.69) and mathematics (.69). Geography is also related to Mathsci (.06). This pattern of loadings on the general school-achievement factor is the same as in the studies conducted by Gustafsson and Balke (1993) and Andersson (1998). The Mathsci factor is hypothesized to be a mathematics and natural-science factor, assumed to reflect knowledge and skills in these areas. Mathematics is, as was also found in the Andersson study, also related to the Lang factor (.06). This factor is hypothesized to be a verbal factor, involving abilities, skills and competencies to be applied in relation to language acquisition and use. This requires, among other things, the acquisition of grammatical rules, and logical reasoning, which is also required in learning the formal systems of mathematics. In addition, as in the Andersson study, English has a loading on the Mathsci factor (.14). The Aesthetic factor is hypothesized to involve abilities, skills and competencies in creative activities within music and art. The highest loading on the Aesthetic factor is observed by art education (.23) followed by music (.22).

In order to investigate whether the eight different types of goal orientations relate differentially to achievement in subjects related to the SchAch, Mathsci, Lang and Aesthetic factors the seven dummy variables were entered into the NF-model and related to the four latent achievement factors (see NF-Mo1 in Figure 4). As in the model (Mo1) MathAch was also included.

Given the positive relation between goal orientation and achievement in grade 6, displayed in Figure 2, direct relations between the eight different types of goals orientations and achievement outcomes in mathematics in grade 6 were also specified in the model (NF-Mo1). Moreover, in the NF-Mo1 model direct relations between achievement in grade 6 and the four latent school achievement factors in grade 8 were specified. This relation is based on the assumption that new learning and thus subsequent performance is influenced (or determined) partly by what pupils already know and how pupils learn, that is, their previously learned skills, strategies and behaviours. This model is reasonably well supported by the data (chi-square= 732.94; df=145).

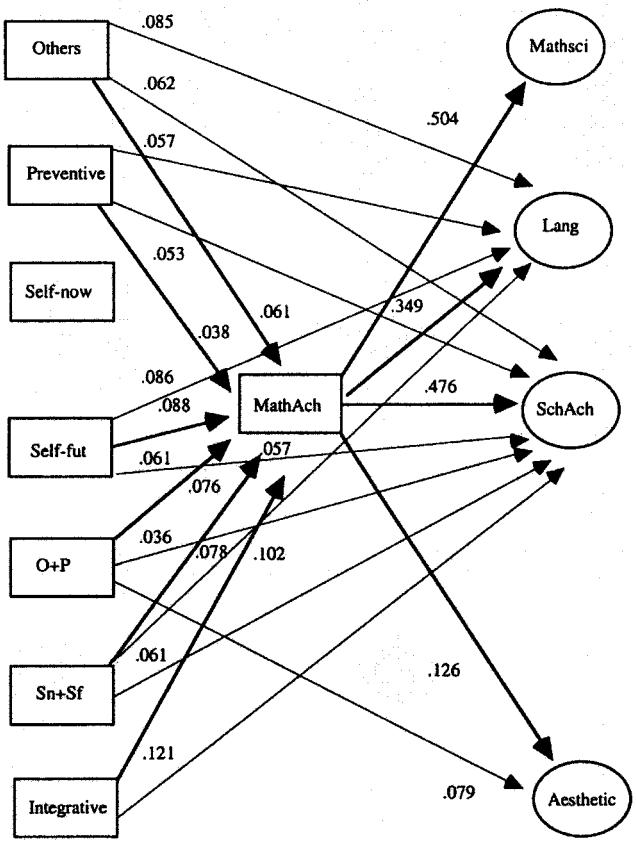

Figure 4. One-group model (NF-Mo1) of observed goal orientations related to pupils' achievement in grade 6 and in grade 8.

The standardized parameter estimates in Figure 4 show that there is, indeed, a very substantial relation between achievement in grade 6 and in grade 8, in spite of the fact that grade 6 achievement is measured by a single mathematics test and grade 8 achievement by four latent variables. The high relationship also implies that there is a strong indirect effect of achievement orientation on grade 8 achievement via grade 6 achievement. However, as is clear from Figure 4 there also are several direct effects of goal orientation on achievement differences between the goal orientations and the reference group (i.e. the Neg/critical group) from grade 6 to grade 8. One cause of these direct effects may be that the goal

orientations do express themselves differently over time. Another cause of the direct effects may be that the mathematics test in grade 6 measures a partly different aspect of school achievement than do the latent achievement variables in grade 8.

The estimated coefficients show the largest effects with respect to SchAch the Integrative (t=5.39) and the Preventive-future (t=3.34) goal orientations. For the Self-future (t=2.86), the Self-now plus Self-future (t=2.66), the Others-now plus Preventive-future (t=2.65) and the Others-now (t=3.03) goal orientations smaller direct effects are found. These results show that there are larger differences between the reference group and most of the goal orientations for the SchAch in grade 8 than for mathematics in grade 6.

The model suggests in addition that the Preventive-future (t=2.08), the Self-future (t=2.35), the Others-now (t=2.42) and the Self-now plus Self-future goal orientations (t=1.98) are significantly higher on the Lang factor than the reference group.

It is interesting to note that there is no direct effect between any of the goal orientations and the Mathsci dimension in grade 8. This result suggests a higher degree of stability of differences between the goal orientation groups in the area of mathematics and science than in other areas. Another possible interpretation of this finding is that there is less of an overlap between the mathematics test and the other achievement dimensions in grade 8 than it is with Mathsci.

Whichever interpretation of the above is correct, these findings suggest that there are larger differences in achievement over time between the Neg/critical goal orientation on the one hand and six of the other goal orientations on the other hand.

Gender differences in goal orientations and achievement

In the next model (NF-GMo2) that was fitted to the data (see Figure 5) relations between gender (coded as a dummy variable, where zero represents boys and one represents girls), goal orientations, achievement in grade 6 and achievement in grade 8 reflected in the four latent achievement factors were specified.

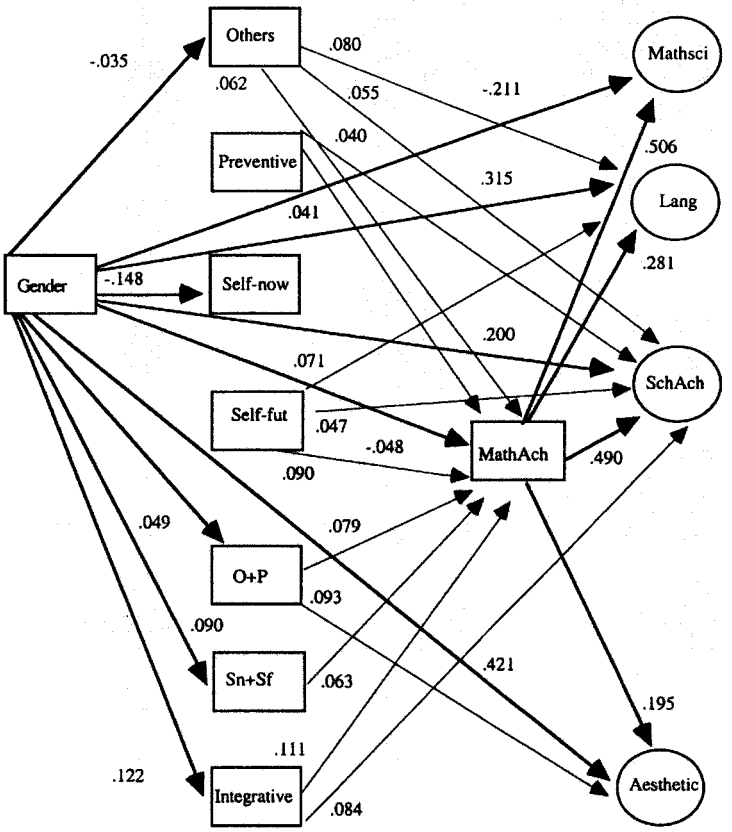

Figure 5. One-group NF-GMo2 model of gender and observed goal orientations thought to influence pupils' achievement in grade 6 and 8.

In this model gender is assumed to influence the development of different rationales for action, which in turn are assumed to affect the ways pupils engage in different learning situations in school. Different ways of acting in relation to schoolwork are in turn assumed to result in gender-related differences in learning and thus subsequent achievement outcomes in different knowledge domains in a here-and-now perspective as well as in a long-term perspective.

Moreover, in the model boys and girls are in addition assumed to set up and strive for different kinds of goals in school, i.e. to demonstrate different types of motivation or goal orientations towards school and education (see the direct relation between gender and goal orientations in Figure 5). The model fitted the data reasonably well (chi-square 888.32; df=155).

The estimated coefficients for the relations between gender and achievement in grade 6, show gender to influence pupils' achievement outcomes in mathematics directly, as indicated by the significant relations between gender and MathAch (t=-4.02). The negative t-value indicates higher achievement on the standardised achievement tests in mathematics in grade 6 for boys than for girls.

The estimated coefficients for the relations between gender and achievement in grade 8 show gender to influence pupils' school achievement in the four different knowledge domains directly, as indicated by significant relations between gender and the four latent factors SchAch (t=17.17), Mathsci (t=-11.06), Lang (t=14.93) and Aesthetic (t=9.73). The positive t-values indicate higher achievement in subjects related to the SchAch, the Lang and the Aesthetic factors for girls, while the negative t-value of -11.06 indicates higher achievement in subjects within the Mathsci domain for boys.

The relations between gender and the dummy variables in Figure 5 indicate that the number of girls within the Integrative (t=10.51), the Self-now plus Self-future (t=7.73) and the Others-now plus Preventive-future (t=4.23) goal orientations is higher than the number of boys. In contrast, the number of boys within the Self-now (t=-12.89) and the Others-now (t=-3.05) goal orientations is higher than the number of girls.

It is interesting to compare the direct estimates between the goal orientations and achievement in the model in Figure 4 and Figure 5. In the former model the relations are affected by the fact that there is a different population of boys and girls in the goal orientations, but in the model in Figure 5 these effects of gender are partialled out. Some differences are, indeed, formed. Thus, when the effects of gender are partialled out there is a significant direct effect on SchAch from four of the goal orientations, as compared to six when gender is not partialled out. The effects of the Self-now plus Self-future and of Others-now plus Preventive-future goal orientations thus seem to be accountable for in terms of gender effects. Also with respect to Lang the Self-now plus Self-future goal orientation effect seems to be accountable for in terms of gender.

CONCLUSIONS AND DISCUSSION

The purpose of the present study is to gain more information about the eight goal orientations by investigating the relationships between these orientations and achievement over time in relation to gender.

The point of departure for the analyses of the pupils' academic achievement is assumptions about the generality or specificity of the cognitive and motivational processes and the goals, in particular, involved in these orientations and how they may influence achievement outcomes over time (see e.g. Niemivirta, 1998b). Research findings obtained by Gustafsson and Balke (1993) and Andersson (1998) suggesting that the grades in compulsory Swedish schools are multidimensional have also been considered. This research states that grades in Swedish schools do not only reflect the pupils' general and domain-specific skills and aptitudes (see Gustafsson & Balke, 1993), but also the pupils' motivation and overall adjustment to the school system, referring to factors such as the neatness and the manners of the pupil, which is thought to influence the grades assigned by different teachers (Andersson, 1998). This suggestion is in line with research findings obtained by Wentzel showing that grades are influenced both by pupils' intellectual achievement and their competence in showing a socially responsible behaviour in the classroom (Wentzel, 1989, 1991a, b, c).

The first major finding of the present study is that pupils demonstrating an Others-now plus Preventive-future goal orientation show the highest results in mathematics in grade 6 of Swedish compulsory school. Given the content of the Others-now goal orientation and the content of the Preventive-future goal orientation, the Others-now plus Preventive-future goal orientation is to be considered as an orientation where the goals or demands set by other people, the state or society and the labour market have become personally important to pupils. Pupils within this orientation are thus motivated to make efforts to attain externally set goals and to achieve for the best of others and oneself. In the previous chapter, the interpretation of this goal orientation and its similarities with the type of extrinsic motivation termed integrated regulation by Rigby, Deci, Patric and Ryan (1992) were discussed. Given the above interpretation and the conceptual similarities between the Others-now plus Preventive-future goal orientation and integrated regulation, we may conclude that the above finding is in line with Rigby, Deci, Patric and Ryan's (1992) position that integrated regulation will result in more cognitive engagement and learning than external or introjected regulation and thus higher achievement outcomes.

In the present study, the next highest achievement in mathematics in grade 6 is shown by pupils within the Integrative goal orientation. As can be seen in Table 31 in this chapter, the Integrative goal orientation involves nine different goal orientations, each of them thought to integrate various internal and external sources of information and combinations of extrinsic/performance with intrinsic/learning goals (i.e. multiple goals). As noted in the previous chapter, pupils who are able to combine extrinsic/performance with intrinsic/learning goals are considered as adaptive pupils or pupils with adaptive performance concerns (Peltonen & Niemivirta, 1999). However, given the content of the Integrative goal orientation and the characteristics of adaptive pupils, we may conclude that the above finding is in line with research (e.g. Peltonen & Niemivirta, 1999) suggesting that adaptive performance concerns lead to high achievements in the same way as adaptive mastery concerns.

Summarising the findings so far we may say that the pupils who are most successful in school are those who take into consideration the perspectives of other people (i.e. who try to fulfil their wishes or demands and expectations) plus who try to prevent own feared-for situations to become reality, and pupils who try to pursue multiple-goals.

In the present study, the Self-now goal orientation which shows the biggest conceptual similarities with intrinsic motivation and mastery goal orientation is actually negatively related to achievement in mathematics in grade 6. Pupils within this orientation demonstrate the lowest achievement in mathematics of all pupils, including pupils within the Neg/critical goal orientation. This finding suggests, among other things, that school has failed with respect to its intention to "help the individual pupil to realise her/his possibilities" and "adapt the teaching toward the pupils' abilities and capabilities" (Lpo 94). That is, to support pupils' quest for individuality in the classroom (i.e. to be self-determined and autonomous and to learn according to own self-set standards in order to fulfil own needs, interests and goals), central to the Self-now goal orientation. Alternatively, pupils within the Self-now goal orientation give higher priority to learning according to self-set standards and own needs, interests and goals than to learn according to general societal and classroom norms and values and satisfy goals and expectations that are more important to others rather than to themselves.

Given the disagreement among researchers on the issue whether the pursuit of single goals (i.e. learning goals) can promote learning and performance better than multiple goals (i.e. social or performance and learning goals) and the findings of the present study which point out the advantage of the pursuit of social goals

in school, including social responsibility goals, for achievement, in my opinion, the main question should be another than arguing each others' points of view. That is, not to throw away all social and social responsibility goals (i.e. performance goals), but to find a balance between giving each pupil the opportunity to fulfil his/her need for individuality in the classroom and to learn according to self-set standards with each pupil's quest for being a part of a group (e.g. peer group, school class or society) (Ford, 1992).

Moreover, the fact that pupils within the Neg/critical goal orientation achieve better in mathematics in grade 6 than pupils within the Self-now goal orientation is an indication that this pupil group is not "mainly a weak pupil group". That is, this pupil group does not necessarily distinguish itself because of a lower achievement on the test in mathematics, but also because of the type of motivation towards school and education that these pupils demonstrate. Pupils within the Neg/critical goal orientation seem to both reflect over and be aware of what school wants from them as pupils and that they have both broad and deep knowledge and insights into a lot of different things, such as educational practices, the teachers' competence in teaching pupils, and the extrinsic structures, controls and rewards that are in school. An aspect of school that is extensively critized by these pupils is however the teaching content which according to them does not stimulate their own needs, interests or goals (i.e. motivation) to learn in school. Pupils within the Self-now goal orientation on the other hand seem to be satisfied with the teaching content and do not want to change school. However, that Neg/critical oriented pupils obtain higher achievement in school than Self-now oriented pupils might be an indication that arguing for one's own opinions, needs, interests or goals as a pupil may pay off better than being cautious (see teachers' pupil preferences, Brophy & Good, 1974; Solomon & Kendall, 1977; Cartledge & Milburn, 1978).

As mentioned in the discussion part of the previous chapter, research is mixed on the relative effectiveness of proximal goals (i.e. short-term goals) over distal goals (i.e. long-term goals). There are research findings which show that setting proximal goals can have positive effects on self-efficacy and achievement, however (Bandura, 1986). Given these findings, several researchers such as Ford (1992), Locke and Latham (1990), Bandura and Schunk (1981) and Harackiewicz and Sansone (1991) have suggested that teachers should set a mixture of both distal and proximal goals for their pupils.

The findings of the present study suggest that the pupils who do well in school are pupils who in general set and strive for a mixture of both proximal and

distal goals. Moreover, the ANOVA analyses suggest that Self-future oriented pupils (mean=10.78) achieve significantly better in mathematics in grade 6 than both Self-now plus Self-future oriented (mean=10.35) and Preventive-future oriented pupils (mean=10.37). Consequently, to engage in school work as a strategy to structure the own future and adult life seem to pay off better than to engage in school work in order to satisfy own needs, interests or goals in a here-and-now perspective or to prevent personally relevant fears with respect to the future. This finding may be an indication that school has been successful in making pupils see the personal relevance and the meaningfulness of the school content for their own learning and development and, in particular, for their preparation for adulthood (Pulkkinen, 1990; Trommsdorff, 1986; Malmberg, 1998; Nurmi, 1989).

The results of the confirmatory factor analyses conducted on the pupils' achievement on mathematics in grade 6 and their course grades in grade 8 suggest that also two years after the first data collection, six of the eight goal orientations are directly related to achievement in grade 6, causing the differences to increase even more, while again no significant relation between the Self-now goal orientation and achievement in grade 6 could be established.

Moreover, the results of the confirmatory factor analyses conducted on the pupils' course grades in grade 8 suggest that six of the eight goal orientations are also positively related to the general school-achievement factor SchAch, except for the Self-now goal orientation. As suggested by Andersson (1998) in order to reach the educational goals set for the four social-science subjects which have the highest loadings on SchAch, pupils must do a lot of homework and show adaptive classroom behaviour.

The finding that all of the social and social responsibility oriented goal orientations are positively related to achievement in the social-science domain may be an indication that pupils demonstrating these six types of goal orientations may attend to the social as well as the motivational/intellectual requirements of the classroom and pursue goals that are congruent with both sets of expectations (see Wentzel, 1989). For example, the extrinsic or performance goals that pupils within the Others-now plus Preventive-future goal orientation are emphasising as important to achieve in school are also key educational objectives for Swedish schools and society. In particular, the perceptions of a good citizen and how to act in school in a here-and-now perspective in order to become a good citizen indicated by pupils within this orientation are in line with the motivation for the teaching of social-science subjects in Swedish schools, as expressed in the national

curriculum (Lpo 94). In Lpo 94 it is stated that these subjects have the particular objective of teaching pupils to be responsible citizens in a democratic society.

Educational goals are communicated by the teachers and through their interaction with the pupils (e.g. Malmberg, 1998). The interaction between teachers and pupils in the social-science domain can thus involve the teachers' personal ideas of what is a responsible citizen, how pupils should act in order to be conceived as responsible citizens, his/her interpretation of how school should teach pupils in social sciences (as defined in the curriculum) and the pupil's own interpretation of a responsible citizen and actions in the classroom in order to become one. The higher grades in social sciences obtained by pupils within the Others-now plus Preventive-future goal orientation as compared to the grades obtained by pupils within the Neg/critical goal orientation could thus be a result of a greater overlap between the teachers' and these pupils' representations of these aspects (see individual and collective representation of cultural knowledge, Malmberg, 1998, and normative expectations about development, Heckhausen & Krueger, 1993).

As noted already, pupils within the Neg/critical goal orientation indicate an elaborate insight into the intellectual expectations and behavioural requirements of the classroom, the conditions that prevail on today's labour market and the social norms. However, these pupils seem to reject or are unwilling to conform to the intellectual and behavioural standards of school which they in general seem to perceive as bad for pupils.

The fact that no difference in achievement in subjects related to the SchAch, Mathsci, Lang, and the Aesthetic factors for pupils within the Neg/critical and the Self-now goal orientations could be established may, thus, be an indication that these goal orientations do not contribute to pupils' academic success in grade 8 because they either do not match the motivational/intellectual requirements of the classroom or the behavioural expectations or both of these aspects.

The fact that no direct relation between the eight different types of goal orientation or motivation and the domain-specific factor in mathematics-science (Mathsci) could be established may be an indication that pupils' achievement within this specific knowledge-domain may require domain-specific skills and aptitudes. In this case, ability factors and domain-specific interest factors may account more for success in this domain than broad motivational factors and adaptive classroom behaviour. This may not be the case with success in the language knowledge domain, given the significant relations between the Others-

now, the Preventive-future, the Self-now plus Self-future and the Self-future goal orientations and the Lang factor (Lang), as well as the significant relation between the Others-now plus Preventive-future goal orientations and the Aesthetic factor (Aesthetic).

Another possible interpretation of the above results is, however, that the achievement measure in grade 6 more effectively controls for performance differences in the Mathsci domain than in the Lang domain.

In short, the findings with respect to the relation between motivation and achievement in grade 6 and 8 suggest that there is an increasing difference in achievement over time between the Neg/critical goal orientation on the one hand, and six of the other goal orientations on the other hand, while the difference in achievement between the Neg/critical goal orientation and the Self-now goal orientation in grade 6 to the negative-critical pupils' advantage is absent in grade 8.

The findings with respect to the relation between gender and achievement on mathematics in grade 6 show boys to score higher on mathematics in grade 6 than girls. In addition, boys were found to score higher on the domain-specific factor in mathematics-science (Mathsci) in grade 8. In contrast, girls were found to score higher on the general school-achievement factor (SchAch), the domain-specific factor in language (Lang), and the domain-specific factor in art education and music (Aesthetic). These findings are in line with the findings obtained in the Andersson (1998) study. The fact that boys involved in the present study seem to indicate higher motivation and ambition for obtaining high achievements in mathematics in grade 6 and natural-science subjects in grade 8 is also in line with current research, showing boys to do better than girls in a knowledge domain which is established as a "male domain" (Staberg, 1992; Rosén, 1998).

Besides gender influencing pupils achievement in these four different knowledge domains directly, gender was found to influence pupils' achievement on the SchAch factor and the Lang factor indirectly, via the positive relation with the Others-now goal orientation and on the SchAch factor, via the positive relation with the Integrative goal orientation. In short, these findings suggest that achievement in school varies according to gender, mediated by pupils' goal orientation, in this case, the Others-now and the Integrative goal orientations.

In addition, the findings of the present study show the Others-now and the Self-now goal orientations to comprise more boys than girls, while the Others-now plus Preventive, the Self-now plus Self-future and the Integrative goal

orientations to comprise more girls than boys. That the Self-now goal orientation comprise more boys than girls might be considered as an indication of boys' preferences for attaining academic goals (Dweck & Leggett, 1988) or goals which are of more personal interest to them than affiliation and social responsibility goals, which are most often attributed to girls' goal pursuit (Wentzel, 1989).

The finding that the Others-now plus Preventive-future goal orientation comprises more girls than boys is thus very interesting seen from, among others, Ve's (1991) perspective which suggests that gender differences in the underlying achievement pattern are expressions of differences in interests and values which in turn are based on the division of labour. In regard to the labour market, pupils within the Others-now plus Preventive-future goal orientation indicate a desire to achieve well in school in order to compete with other pupils as well as adults in the future for the good jobs in the Swedish labour market. Pupils within the Others-now plus Preventive-future goal orientation indicate, in addition, a personal demand or social responsibility to learn in school in order to make a contribution to or become useful in society. Or as a pupil expressed it: "We must learn things and get good jobs to be able to help Sweden out of crises".

Seen from Ve's point of view the above finding may be an indication of the motivation and ambition of girls to comply with social ideals, that is, that females shall enter the public sphere and shall care about the well-being of others (i.e. children and family) and the well-being of society. The motivation and ambition of girls to achieve well in school in order to attain social responsibility goals would thus from Ve's (1991) point of view be a reflection of females' more responsible rationality. This rationality is contrasted to that of males, which is supposed to be more technical (or more specialised), and their preference for attaining goals which are of more personal interest.

However, although the different goal orientations of the present study comprise either more boys or girls the fact that each of these goal orientations involve a large variety of motives and goals, the findings of the present study can not give any answer to the question whether girls are more likely to have social responsibility as a primary goal, whereas boys are more likely to have self-actualisation as a primary goal, or whether the school achievement of girls and boys is related to some gender-specific goals or not.

As already stated the purpose of this part of my investigation was to focus on motivational determinants of learning and subsequent achievement. However, the

above discussion indicates that also cultural and contextual factors should be considered in the study of the relationship between motivation and achievement. To consider gender differences in goal orientations and achievement was a first attempt to strive towards this goal. In order to capture the dynamics and the developmental nature of the orientations involved in the present study as well as their long-term consequences for school achievement in different knowledge domains in relation to gender more research is required.

CHAPTER 6

GENERAL CONSINDERATIONS

SEEING THE WORLD FROM THE PUPIL'S PERSPECTIVE

In the Western world almost all adults have been to school and carry with them both positive and negative experiences from this. The youngsters of today cannot be the same kind of youngsters as today's adults were, however. The purpose of the present investigation has been to show the pupils' perspectives, thoughts, and beliefs about today's school and their own reasons for going to school.

However, in order to discover the inner selves of pupils and the concerns that motivate their actions in school we need to let go of our own previous experiences of school and our own formative years in what was a very different society to that of today and get down to the pupil's own level. Such a move is far from easy as the road to the inner self of a pupil is long and edged by all kinds of obstacles. These obstacles are anchored in both social practices and theories and research about children and the self.

As already mentioned in the Introduction chapter, the school has a number of different tasks. Two of these are the communication of knowledge and child-socialisation (Lpo 94 and Lpf 94). Taking these tasks together, the pupils are to obtain an education that is of importance and use to both them and society (Nurmi, 1989; Malmberg, 1998; Andersson, 1996, 1999). The challenge is, however, that we see the pupil as an individual and equal human being (Maslow, 1954; Ford, 1992) having worth in itself (Covington, 1992) and that we help to foster the unique within every pupil. This is emphasised within the Swedish National School Curriculum and the official aims for school activities and is expressed in formulations such as "help the individual pupil to realise her/his possibilities" and "adapt teaching toward the pupil's abilities and capabilities" (Lpo 94).

Another function that the school has been attributed, but which we rarely speak of today, is its "keeping function" (e.g. Andersson, 1999). Pupils are today forced to go to school for 9 years and are expected to go for 12. This can be put as follows. The school has a "keeping function" beyond the official aim of raising national knowledge levels which is about keeping pupils in school in the guise of giving them the kinds of qualifications and skills required by the labour market and future work, but with the real aim of keeping them outside of a labour market for an extended period of time, because the economic rationality that determines the dynamics of this market decrees that a place cannot be afforded for them. In short, obtaining a 9 or 12 year education and specialisations within this education becomes unavoidable for the youngsters of today, if they are to be able to compete for work as adults in a competitive labour market. School becomes here a social imperative which they cannot escape from (Willis, 1977).

The relations between education and the labour market introduced above are reflected in the more or less "hidden curriculum" of school to which pupils are exposed to in their meetings with the school and their interactions with teachers (e.g. Andersson, 1999; Malmberg, 1998). However, research findings suggest that limited knowledge and insight into the inner selves of pupils and the variety of concerns that motivate pupil behaviour, including achievement behaviour, leads teachers to introduce activities and interact with different groups of pupils on the basis of incorrect assumptions about their cognitive abilities (Andersson, 1982). Through incorrect notions about the pupil as an individual and equal human being, or as a whole person, the aims of the Swedish schools (as they are defined in the national curriculum Lpo 94 and approved by the Swedish Parliament Lpf 94) may function in a way that is not for the best of pupils and thereby may in some pupils create a feeling of meaningless.

The general finding of the present investigation is that when we ask the pupils themselves about their perspectives of school and the aims of education they in fact give expression to all the issues discussed above. These perspectives, or their different understandings of the compulsory nature of school, and all the factors that are thought to act on their life in school can be connected to different kinds of motivation.

Considering the types of motivation termed Self-now and Self-future focused goal orientation we may conclude that pupils demonstrating cognitive and motivational aspects characteristic to these orientations really enjoy spending time in school. These pupils are eager and ambitious to learn in school, they find

school meaningful and stimulating, they like the teachers and they do not want to change school.

In contrast to the pupils described above, pupils demonstrating cognitive and motivational aspects characteristic to the types of motivation termed Others-now and Preventive-future focused goal orientation do not seem to enjoy spending time in school. They go to school anyway because school is compulsory for all children, because they have to due to their parents, or because they perceive school as an unconditional personal demand for their survival in the future and on the labour market. These pupils are also eager and ambitious to learn in school and accept school.

Having own reasons for doing something is from a motivation point of view of crucial importance for learning because pupils are then expected to be focused and search for some kind of meaning in and through study. The search for personal meaning in doing something helps the learner to activate own interests and the want or desire to engage in school activities in order to fulfil immediate and distant personally relevant goals.

The lack of meaning and the experience of failure have on the other hand been found to lead pupils to low-ability judgements and undermine their self-esteem. This is in turn thought to cause anxiety and if a pupil's ability is repeatedly judged as low, both by the pupil and others, depressed affect and a sense of shame will set in (Sarason, 1975). Pupils may also adopt a more defensive and self-protective posture, devaluing the school tasks and expressing boredom or disdain towards them (Covington, 1992; Elliot & Harackiewiez, 1996; Niemivirta, 1996).

In the present investigation, pupils who seem to find school meaningless and unstimulating, who would like to stay away from school if they could, and who dislike the teachers and perceive themselves as disliked by them are found within the Neg/critical goal orientation. Given the negative implications of the lack of meaning introduced above pupils demonstrating this kind of feeling, among other things, are pupils who we really should worry about. This is because the lack of meaning can lead pupils to develop negative self-evaluations (see Giota, a), or rejecting attitudes and affections towards school, the teachers and themselves in school. Pupils within the Neg/critical goal orientation attain, in addition, lower achievement outcomes in grade 6 than pupils within six of the eight identified goal orientations, except for pupils within the Self-now goal orientation who show a lower achievement in grade 6 than all other pupils.

Moreover, given the conceptual similarities between pupils within the Others-now goal orientation and intrinsic motivated or mastery oriented pupils and the general assumption that intrinsic motivation or a mastery goal orientation can promote learning and achievement better than extrinsic motivation or a performance orientation the findings of the present investigation show us another picture of pupil motivation in real-life classrooms. The fact that pupils within the Self-now goal orientation have obtained a lower achievement outcomes than all other pupils in grade 6 and the same low achievement levels as pupils within the Neg/critical goal orientation in grade 8 may be an indication that studies on motivational processes and academic achievement which try to explain performance outcomes with respect to goals to achieve task-related standards of excellence do not adequately describe the real-life conditions that prevail in today's classrooms. That is, that pupils are required to adapt or conform both to the behavioural expectations and the intellectual/motivational requirements of the classroom and consequently set up and pursue a variety of both social and academic goals (i.e. multiple goals) (Wentzel, 1989, 1991a, 1991b). The findings of the present investigation show actually that pupils who are most successful in school over time are pupils who try to pursue both types of goals.

The above findings may also be an indication that school does not fit with pupils' quest for self-determination and motivation to acquire knowledge in school that is meaningful for their own life and development. Alternatively pupils with a Self-now as well as a Neg/critical type of motivation towards school do not fit with the school's request for adjustment or conformity.

According to Andersson (1999) the step that has to be taken in order to create a school that fits with the children's' own needs, interests, goals and potentials to learn is to "blow up school". In my opinion, if we are not prepared to take this necessary metaphorical step then we could at least reflect over and discover our own personal contributions in the forest of demands and expectations regarding both cognitive performances, social rules and regulations, norms and values that pupils meet on a daily basis in school and to change our attitude towards individual pupils.

A way towards such self-understanding is by confronting what pupils have to say about us as teachers and the teaching we offer them. Paying respect to the pupils' understandings and evaluations of us and our school demands and expectations is important as it shows that we have a view of the pupil as an equal, fellow human being with abilities and capabilities to think relevant and valid thoughts about us as teachers, the school and him/herself. In my opinion, this is

what going down to the pupils' own level and meeting pupils on equal terms and caring for them as equals is about. By doing so we may discover that there are no "unmotivated pupils" but only pupils who are not in correspondence with our demands and expectations. Expressed differently, showing human respect is where the quality in education and care for pupils lies, in my opinion. Caring for the pupils means, in addition, as an adult and teacher, having the time and the will to put oneself in the perspective and situation of the other, which is one of the most important pre-requisites for creating meaningful teaching.

SEEING THE WORLD FROM A SCIENTIFIC PERSPECTIVE

A significant barrier when we as teachers or researchers try to gain knowledge and insight into the inner worlds of individual pupils is language. For instance, when an individual pupil speaks of his/her inner world, words and expressions may be lacking, giving rise to insurmountable difficulties in the communicative moment. Further, differences in the vocabularies and understanding of concepts of the pupils, a lack of desire to respond, or an inability to really answer a question about themselves or others can also exist. These problems are associated with validity issues (Carmines & Zeller, 1979; Judd, Smith, & Kidder, 1991).

In addition, describing the school situation and the aims of education seen from the perspective of pupils is a theoretical impossibility for an adult. This is because we interpret the world (i.e. the pupils' world) from the standpoint of adult rationality, not the rationality of a child. Penetrating the pupils' perceptions of the school situation and the aims of education together with their own reasons for going to school, can become pure speculation under these conditions. This can give a body of knowledge and insights which is far from the perspectives and motivation of the pupils that it is meant to portray, as what we have done is to develop a body of knowledge and insights which represents nothing more than our subjective understandings of the subjective world of the pupils.

Knowledge and insight into the inner world of the pupil is important to have, however. This is because teachers must be able to get down to the pupils' own level and meet their pupils on their own terms. Expressed differently, teaching must in the end take a starting point in the inner selves of the pupils, if it is to be meaningful to them, motivating for them and able to contribute to and be of importance and use for their overall development. As concerns the researchers,

they must be able to increase their understanding of inner processes and how these processes interact with the environment and thus improve their methods to measure the complexity of these processes. The latter belief is what encouraged me to formulate an open question (see also Giota, 1995) to pupils about their perceptions, thoughts, and beliefs with respect to today's school and their motivation for attending school, despite the fact that open questions are associated with problems of reliability and validity from some scientific perspectives (e.g. Judd, et al., 1991).

My way of researching pupil motivation is relatively rare within contemporary motivation research, however, where pupil motivation is seen from an adult perspective only and investigated by the use of a limited number of scientifically determined and controllable variables.

In my attempts to validate the plethora of different concerns that appear to motivate pupil behaviour, I met a number of obstacles, however. One of these obstacles has been to define the concept of motivation. This is because there is today a forest of theories of motivation. These theories exist side by side, some of them are complementary, others are competitively antagonistic towards each other, some are modern, others less so, some try to explain pupils' achievement motivation in school, others have a broader more developmental orientation and it is difficult to decide which definition is most suitable.

The theories of motivation which I finally came to adopt as the ones most relevant to the descriptions provided by the pupils in the present investigation are ones which give the concepts motive and goals central importance. Common to these theories is that they define motivation from a general cognitive and social-cognitive perspective. This is a perspective which refers to how pupils themselves perceive and experience school, education and educational goals and how they make sense of what teachers, parents and society appear to want them to do in school (Durkin, 1995).

Although the theories of motivation that have been mentioned in the present investigation can use the same methodologies and can come to some degree to the same results, they have at their bases different views of humanity, culture and sociality. This is not always made explicit. The deeper implications of these issues have been discussed in the theoretical part of this investigation with respect to whether human activity is regulated by needs (Murray, 1938) or whether humans are independent and reflecting, thinking beings (Leontjev, 1981; Vygotsky, 1984; Piaget, 1950, 1981; Eckensberger & Meacham, 1984; Hollis, 1977) with their

own free will (James, 1890; Heckhausen, 1991), who can make their own choices and strive towards their own goals and development (Ford, 1992; Wentzel, 1989; Hurrelmann, 1988; Brandtstädter, 1984), or who are steered by their environment (de Charms, 1968; Rotter, 1966; White, 1959; Deci & Ryan, 1985, 1991).

The view of pupils which underlies the present investigation is that they are subjective beings in the same way adults are, with the ability of self-reflection and the capability of reflecting over their own motives, goals and actions. This means that the pupils' perceptions, thoughts and beliefs and their actions in school can be studied for what they are. That is, as expressions of subjective understandings of their internal and external reality (Reese & Overton, 1970), which have equal legitimacy with adult assumptions and expressions.

Considering the pupils' perceptions, thoughts, and beliefs as well as their motives and goals does not imply that these are the most or the only important things in the study of children. As stressed in the theoretical part of the present investigation, one way of dealing with the methodological issues concerning the study of children is actually to abandon a dualistic perspective that often prevails in adult reasoning. Within motivation research, a dualistic thinking results in studies of children as being either intrinsic or extrinsic motivated, striving for mastery or performance goals, seeing their actions as based on reasons or emotions, etc. In my opinion, if one rejects dualism then it becomes "natural" to study children and pupils as they are, that is, as multi-dimensional human beings with their own needs, interests and goals as well as responsibilities, rights and obligations.

The criticism that has been directed towards the two most well-established theoretical perspectives concerning pupil motivation (i.e. the intrinsic and extrinsic motivation and the mastery and performance goal orientation perspectives), and which I have employed in my attempts to validate the results from the open question, is that these perspectives focus mainly on single motives and goals with the consequence that they do not adequately describe the variety of concerns that motivate pupil behaviour (Wentzel, 1989).

Considering the results of the content analysis of the pupil responses to the open question, I have come to the conclusion that neither of these two perspectives on motivation alone can explain the variation in the concerns that are put forward by the pupils. Moreover, neither of these two perspectives is based on a pupil perspective. For instance, if I were to try to interpret the results

from the investigation from either a purely intrinsic-mastery or a purely extrinsic-performance perspective, many of the goals which are important to attain in school from the pupils' perspective, would be reduced to an instrumental or extrinsic and a performance orientation towards school and education. This would include goals such as going to school to be able to make choices with respect to one's own further education, and acquiring different kinds of skills for adult work or adult life.

When the pupils describe their life in school the term competition is used. Competition is considered to be a performance goal within the above perspectives (Ames, 1992) and associated with an undesirable achievement oriented behaviour (Wentzel, 1989). My professional experience of children is, however, that children compete with each other even in the pre-school years. They compete in how to build the highest tower with their wooden bricks in pre-school, in working faster than everyone else or coming furthest in their maths book in the early grades of the elementary school, in beating their teacher in various small board-games and so on (see also Locke & Latham, 1990). We adults may interpret this in terms of the beginnings of the kinds of competition that become crystallised in the upper grades of the elementary school. But for the pupils what may be in play is just a game or a personal challenge (Maslow, 1954).

My point here is that the concepts and methods we use when we try to develop knowledge about and insights into the inner and outer world of the pupil are adult concepts and methods by which we uphold a conceptual particularity and clarity on issues of childhood and youth, which the children and adolescents themselves may not have and may not support or desire. This under-girds certain dimensions of adult domination and at the same time exacerbates a risk for misinterpreting (or over-interpreting) what children and adolescents do in school and how they see things. In my opinion, it is of importance that we as adults become aware of and can recognise that the knowledge and insights we develop and employ when we speak of pupils in schools and their performances and motivation contains frailties which are a product of our flawed views rather than things that reflect problems which belong to the pupils as if of nature.

In my opinion, some of the causes behind a dualistic study of pupil motivation concerns the complexity of the different processes compiled within a pedagogical context, on the one hand, and our under-developed measurement procedures, on the other, and the inability to thereafter perspectivise motivation issues in anything but fragmentary and particularistic ways. This has resulted in studies in which the cognitive and social-cognitive processes which have tight relations of

inter-dependency and bearing in and on any pedagogical situation and in real life, are studied in a simplistic manner, more or less independently of each other and in many cases without a direct relation to the actually, situated, acting individuals they are meant to concern. These problems are not easy to deal with, however, but as noted by critical voices, studies on pupil motivation, behaviour and school-related development which focus on isolated aspects of complex situations and which do not ponder the problems of this approach, but rather consider their own results as forthrightly relevant (at times dogmatically as the only scientifically correct, valid and forthrightly relevant results) lack a framework of real life conditions to relate to and thence also demonstrable ecological validity (Bronfenbrenner, 1977, 1979).

In my opinion and according to other researchers, in order to get to know, understand and adequately describe the variety of concerns that motivate pupil behaviour in school it is of crucial importance that we focus on factors related to an overall person-situation adaptation over time (see the interactionist perspective to human motivation and development, Murray, 1938; Pervin, 1968; Reese & Overton, 1970; Kelly, 1979; Lerner, 1983; Ford, 1985, 1992; Wentzel, 1989; Heckhausen, 1982, 1991; Heckhausen & Kuhl, 1985; Bronfenbrenner, 1979; Brandtstädter, 1997, 1998).

The adoption of such perspective would imply that we can pay respect to pupils' total life-situation and see children not only as pupils. For example, one aspect that we have almost totally ignored both in theories and research about children in school and within the social practices of teaching concerns how the way children act in school resonates with the demands which they anticipate the society of the future will place on them in their adult life. As shown by the present investigation, the fact that the youngsters of today think so much about being good in their schoolwork so that they one day can take over and develop welfare within tomorrow's society isn't usually something which we adults associate with pupil motivation at first hand. From this insight, being successful or unsuccessful in school in the here-and-now means that pupils see themselves as successful or unsuccessful in a far broader context than the school.

Moreover, as showed by the present investigation, pupils who have a future time perspective and who demonstrate an awareness of the connection between schoolwork and their professional life and employment or self-development in a future time perspective do better in school over time than pupils who are mainly here-and-now focused. Note here that within intrinsic and extrinsic motivation theory all future goals are considered as extrinsic while within goal orientation

theory the adoption of proximal goals (i.e. short-term goals) is assumed to promote learning and performance better than the adoption of distal goals (i.e. long-term goals) (Schunk, 1990).

In short, in order to discover the inner selves of the pupils and their reality we must see the pupils in a far broader social context and time frame than we do at present. That is, we must see the pupil as a human being with his own needs, interests, goals, disappointments and frustrations and as having roots in a home (Maccoby & Martin, 1983) and specific society (Nurmi, 1989; Malmberg, 1998), peer-groups (Hartup, 1983) and as being part of the world of the present and of a more distant reality.

RELIABILITY AND VALIDITY

The present investigation has the importance of understanding pupil motivation from the perspective of pupils as one of its main messages. This means that it emphasises a broad interactionst perspective on the study of pupil motivation and the need to study both the inner selves of the pupils, the features of the environment in which pupils live, and the relations between the two. Because of the complexity of the processes involved in this, some form of simplification is necessary, however.

In my attempt to reduce the large number of themes and sub-themes identified among the pupil responses to the open question, the identified themes and sub-themes were conceptualised as the general characteristics of different types of goal orientations that pupils hold towards school. This simplification or the reduction of the obtained themes and sub-themes in a limited number of goal orientations was required, however, in order to test the reliability and validity of my way of researching pupil motivation and thus the obtained results discussed above. As must be clear by now these results reflect multiple motives and goals which are expressed within intertwined time dimensions that range from a here-and-now to a long-term perspective and which express positive or negative associations with the means and values of education.

Within the present investigation the terms reliability and validity refer to the full range of the research activities and include everything from data production to my own representations of the pupil responses to the open question and conceptualisation of pupil motivation in terms of different types of goal orientations towards school. The validity here is therefore a measure of the

agreement between my suggested goal orientations and the pupils' different types of statements, providing that these are reliable representations of their understandings of school and own reasons for going to school.

Of great importance in investigations such as the present one is the question how extensive eventual shortcomings in reliability can be (Carmines & Zeller, 1979). This question cannot be answered, however, as controls other than interrater reliability were not possible. For more details concerning the processes of interrater reliability and categorisation of pupil responses to the open question in the present investigation the reader should refer to the Method chapter. However, what I want to remind the reader of here is that in this investigation interrater reliability is not a measure of the agreement between the aspect categorisation I have made (i.e. as Self-now, Self-future, Others-here, Preventive-future, Neg/critical and so on) and the co-raters' own categorisations. The co-raters have instead been given access to the general principles of categorisation used by me and have then been asked to assess if the content of the pupils' responses to the open question expressed either internal, external or negative/critical reasons for going to school.

This means that controls of the reliability of categorising pupils as for example Self-now or Self-future oriented were not possible either. Such controls are important in order to specify the relative importance of sub-themes or sub-orientations within each of the eight goal orientations and if these sub-themes or sub-orientations are equally important for individual pupils' learning and achievement. Coming to terms with this kind of problem is not easy and has not been possible within the present investigation.

Comparisons between my findings and other research on motivation indicate some congruence, however. That is, the results support construct validity or convergent validity (Judd et al., 1991). This applies particularly with respect to research within intrinsic and extrinsic motivation (Deci & Ryan, 1985, 1991; Rigby, Deci, Patric & Ryan, 1992), goal orientation research (Dweck & Legget, 1988; Nicholls, 1979, 1984) and goal theory research (Ford, 1992; Wentzel, 1989). The methods used within this research diverge from the methods used in the present investigation. This means that none of the above perspectives can in themselves validate the results from the studies presented here. For instance, the measurement procedures which are used within the intrinsic-extrinsic motivation and mastery-performance goal orientation research are primarily based on laboratory experiments or questionnaires where motives and goals are usually measured with self-reported instruments (i.e. Likert-type scales).

Regarding the use of the open question as a research method, my experience is now that such a method is a good way of gaining access to knowledge and insights about the inner world of the pupil and its relations to the outer world, but that this method must be combined with more structured methods if one is to be able to control reliability, in particular.

FUTURE RESEARCH

In my opinion, a great challenge for research on motivation is the development of a method which is both meaningful and relevant for pupils and which can give reliable and valid results. My experience after having first visited over two hundred pupils in their own classrooms to ask them what they have thought about answering the open question and how they have understood the purpose of this question and, second, having analysed thousands of pupil responses to this question is that such a question can fulfil the criteria of meaningfulness and relevance seen from the pupil perspective. The question has thus face validity (Judd et al., 1991). This method has weaknesses, however, and most important with respect to conventional forms of reliability (op. cit.).

In order to make good use of the results which appear to be valid and meaningful seen from the pupil perspective whilst at the same time being able to deal with conventional reliability issues brought about by the use of an open question, the most obvious step to take after this investigation is to develop methods which will be based on the obtained results. One way of doing this is by breaking down the different types of goal orientations and forming scales and variables on the basis of the content of these orientations.

According to goal orientation theory and research, what encourages pupils to adopt either mastery or performance goals at school are beliefs about their ability (Dweck & Legget, 1988; Nicholls, 1978). According to this perspective on motivation (see also Covington, 1992), conceptions of ability exert the greatest influence on learning and pupils' achievement behaviour at school, including achievement outcomes. The results of the present investigation show that there are other kinds of beliefs that are of importance for pupils' achievement outcomes, however.

The pupil beliefs which are most prominent in the present investigation and which could be tested if structured questions can be developed are for instance beliefs about future opportunities and constraints within Swedish society and its

labour market and pupils' ideas of what it takes to become a "successful" member of society. These kinds of beliefs have to be investigated from a more social or sociological point of view, however. Another kind of beliefs that can be investigated is the pupils' beliefs or perceptions of their parents' beliefs regarding their plans and achievements in school and how these relate to their own motivation to learn and achieve in school.

As mentioned earlier, from an interactionist perspective on motivation, pupil motivation is tied up with other relations at different levels in the environment of which the pupil is a part and is influenced also by the pupils' contacts and meetings (interaction) with both teachers, parents and other pupils. However, the purpose of the follow-up research design of the ETF-project of which this investigation is part is to render possible both longitudinal and cross-sectional research studies which may give relief to, for example, how the different factors in the environment in which a pupil grows up have influenced choices of study and study performances and to which degree these influences have changed across the pupil's school career and vary across the grade levels of the elementary school at a given time (Reuterberg, Svensson, Giota & Stahl, 1995). These questions can be answered with existing data. The ETF-project has already produced questionnaire data from parents and teachers for the group of pupils who have taken part in the present investigation.

Questions to the teachers concerned, amongst other things, certain background facts about the teachers themselves, details about class-size and composition, the teacher's judgements about the knowledge level of the class, the teacher's conception of knowledge, their view of pupil learning and their judgements of the standard of school resources (books, facilities, teaching media, classrooms, pupil support, and competence development) and of parental contact in the school. Questions to the parents concerned, among other things, conditions in the home, profession and level of education, social background and attitude towards teacher-parent meetings. Other questions to the parents concerned their understanding of the demands which school placed on their child, the quality of the school and the quality of information given by the school. Some questions even concerned the parents' relations with the pupils.

As mentioned already, the focus of the present investigation is on motivational determinants of learning and subsequent achievement. However, in the last two decades there has been an explosion of research studies on "school effectiveness" (Rutter, Maughan, Mortimore & Ouston, 1979); Tizard, Blatchford, Burke, Farquhar & Plewis, 1988), claiming that schools exert a strong influence on

pupils' overall development as well. This type of research is built primarily on multi-level modelling or similar techniques and show that: a) Scholastic attainment varies considerably among schools regardless of the individual and social characteristics of pupils entering them, b) School characteristics influence their pupils' attitudes to school, as measured in attendance and also their feelings about classes and subjects, c) Effective schools influence rates of attendance and antisocial behaviour (for reviews of research studies on "school effectiveness" see Sylva, 1994).

The type of data which is used in school effectiveness research is as noted above already collected for the group of pupils on which the present investigation is based. Through analyses of these data by multivariate analysis (Jöreskog & Sörbom, 1993; Gustafsson & Stahl, 2000) there are thus good possibilities to answer relevant questions about how different types of goals and goal orientations (i.e. both short-term and long-term goals and both cognitive and social as well as affective goals) or pupil motivation tie up with and are influenced by the social conditions of the home (i.e. family characteristics), actual conditions in the learning environment (i.e. classroom characteristics) and the organisation of the school or school quality (i.e. school characteristics). Such a study may thus offer information about the question of the extent to which goals and goal orientations are situated and context-related, personal dispositions or a product of an array of individual as well as environmental characteristics. As already noted, the assumption that goals and goal orientations may be somewhat stable over individuals and across time is still an unresolved issue within motivation research (see though developmental differences in goal orientation beliefs in Dweck & Elliot, 1983, Nicholls, 1978, 1990, and Eccles & Midgley, 1989).

The results of the present investigation reveal that cultural and contextual and not just cognitive factors should be considered in the study of pupil motivation. To consider gender differences in the eight different types of goal orientations and achievement was a first attempt in this direction. In order to capture the dynamics and the development of motivation and the eight identified goal orientations as well as the long-term consequences for school achievement in different knowledge domains related to them future research is to be conducted on the longitudinal data already collected by the ETF-project and the data to be collected from this pupil cohort in the Spring semester of 2001 when these pupils are at the third year of upper secondary school. It is thus of great interest to investigate if the obtained differences in achievement obtained in the present investigation will change with development and if differences in the eight identified goal

orientations and gender will affect pupils' future choices in terms of education and occupation.

It is thus my hope that this investigation has illustrated the necessity to continue the research on pupil motivation, for both pedagogical and research interests. Furthermore, by connecting different research traditions and perspectives, new knowledge emerges.

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