Supporting the voice and choice of students
Promoting self-determination in the classroom: an observational study of teacher motivational behavior
Abstract
Motivation is an important factor when trying to understand human behavior and well-being (Ryan & Deci, 2002), especially for teachers since the occupation involves making students perform certain behaviors (Reeve, 2002). Building on the Self-Determination Theory perspective of motivation the aim of this observational study was to describe and analyze the relation between teacher motivational behavior and student behaviors. The study was conducted over a three week period of observing one class in junior high school and their teachers. The results suggest that when teachers make students aware of themselves, their inner resources and support their choice, self-determined forms of motivation is increased. These findings are discussed as well as structured in a theoretical didactical model which describes how different conditions create different psychological responses.

Key words: self-determination theory, autonomy, competence, relatedness, education
Acknowledgements

I would like to thank: my supervisors PhD Anders Urban and PhD KG Hammarlund (University of Halmstad) for their patience and thorough critique; Stina Edvinsson and Rikard Lindström; Assisting supervisor Professor Anders Persson (University of Lund) for his assistance and advice, as well as support; Gloriane Georgii for her help with the proof reading of the manuscript. I would last but not least want to thank the school which opened its doors for me and especially the teachers and students whom I observed.

Sincerely

Bo Nurmi

2010-05-25
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1. Introduction

Marva Collins (Collins & Tamarkin, 1990) once said that children are born with a tremendous capacity to learn. The only thing needed for them to flourish is to create the right environment. Collins knew what she was talking about, having worked as a teacher for several years, teaching unprivileged children in America. Considered by society to be unable to succeed academically these children had never gotten the support they needed to find and utilize their own inner resources. So therefore it was natural for Collins to start from there, working with their motivation and interest in order to make them aware of their potential.

In recent years the debate regarding if education really creates the necessary conditions for human development has been going strong. One outspoken critic of today’s school-system is Sir Ken Robinson (Robinson & Aronica, 2009), stating that school kills the inquisitive nature of children when mistakes are stigmatized and education is made to revolve around test scores and grades rather than developing ones potential. The philosophical assumption that humans are all born with an innate propensity to learn, and that this tendency can be ruined by society, forms the background of this study, giving rise to the first problem this study deals with: how are teachers to create a situation where motivation is facilitated but at the same time reaching the goals of formal education?

Regardless of how one views it, motivation is of key importance in the educational context. Teaching involves motivating student to perform certain behaviors, and students are in turn motivated or unmotivated by different things. In education, motivation is generally viewed as a unitary concept (Giota, 2002). Being assessed only in one degree, which is whether student have it or don’t. The second problem this thesis deals with is that when describing motivation as a matter of degree the focus is on the individual. The relative lack of motivation becomes a matter for the student to deal with, not something that the teacher or educational context should consider. If motivated, the student will succeed. However, to be motivated one must be allowed to succeed, creating pedagogical dilemma. The third problem is that when interpreting level of motivation, one does not take into account that the same degree of motivation can be of different quality, leading to different outcomes in turn of well-being.

The current study deals with these three problems from a self-determination theory perspective, exploring the relation between teacher motivational style and student behavior. In
the first section the self-determination theory perspective on human motivation and development is presented, followed by how it can be applied to the field of education.

2. Theoretical framework: An overview of self-determination theory

Three decades of work has through quantitative research provided ample evidence for Self-Determination Theory (SDT: Deci & Ryan, 2000; Ryan & Deci, 2002), which can be considered a well grounded psychological theory of human development. The empirical work has to date been substantial, ranging from psychotherapy (Ryan & Deci, 2008) and sport and exercise (Hagger & Chatzisarantis, 2007), to work life (Baard, Deci, & Ryan, 2004) and education (Reeve, 2002).

SDT provides a multidimensional theory of human motivation. The concept of multidimensionality refers to the idea that motivation is viewed not as a unitary concept which differ only in only one dimension (degree: more or less motivation) but varies in type, level of generality and is dependent on the surrounding social climate. At the core of SDT lies the concept of human psychological needs and the organismic-dialectic perspective on human development. (Deci & Ryan, 2000) According to SDT, humans are active, growth-oriented and try to integrate experience into a congruent sense of self, as well as integrate themselves into social structures. This organismic concept of the self stems from work by humanistic psychologists like Maslow (1943) and Rogers (1969) and is oppositional to work by Skinner (1953), who maintained that humans are reactive rather than active – viewing human development as a product of positive and negative reinforcements rather than being a natural part of the active organism.

The organismic integration is, however, situated in a social world in which there is an ongoing dialectic between the individual and the environment. To develop, humans like all animals need nutriments, whether in form of food or psychological support. In biology, the idea of needs (Jacob, 1973) is widely accepted and mainly refers to the survival and reproduction of the organism. In psychology, the idea of psychological needs have not been given as much attention in recent research. SDT proposes that for people to thrive, humans need nutriments which are theorized as the basic psychological needs for autonomy, competence and relatedness (Ryan, 1995). These needs are viewed as the foundation of human motivation and development, innate and not acquired, and just as physiological needs humans are built for the satisfaction of them.
In the context of education students will naturally thrive in environments that support basic psychological needs, and deprivation of these needs will have negative consequences in terms of well-being, as well as academic performance (Reeve, Deci, & Ryan, 2004). However, the satisfaction of these needs will not always occur naturally. The organismic-dialectic perspective refers to the idea that humans, active and growth oriented, interacts in a social world which can support or thwart the satisfaction of needs. In other words: there is an ongoing dialectic relationship between the organism and its natural tendencies and the social world.

According to SDT, the basic psychological needs are defined as follows: Autonomy “represents an inner endorsement of one’s actions – the sense that one’s actions emanate from oneself and are one’s own” (Reeve & Jang, 2006. p. 209). This concept is built on deCharms (1971) seminal work on personal causation. Being autonomous means having an internal locus of causality (I-LOC), rather than perceive being forced by an external event, which is to have an external locus of causality (E-LOC). Stated differently, it is the feeling that you act upon the world rather than feeling that the world acts upon you, being the causal agent of your behavior in the social world. Thus, it equals not to living without the pressures of others – it’s the ability to feel free to deal with them. Autonomy should not be confused with independence, as independence refers to being without the need of others. One can, according to SDT, act autonomously and still be dependent on others (Ryan & Deci, 2002) – some situation does require the need of others, and the absence can be detrimental to well-being.

Competence refers to: “feeling effective in one’s ongoing interaction with the social environment and experiencing opportunities to exercise and express one’s capacities” (Ryan & Deci, 2002. p. 7) and explains why small children engage in endless exploration of their surroundings and manipulation of objects. According to Deci & Ryan (2000) this is a function of the integrative tendency of human self. The child derives pleasure from the activity in itself, satisfying the need of competence when mastering new aspects of life. This interaction might not be necessary in any instrumental way, or prompted externally by parents; but is examined due to the inherent joy of the examination itself and fulfillment of the need to perceive oneself as competent. Competence is an important concept in education, for it is needed to feel competent in order to succeed academically (Niermiec & Ryan, 2009).

Relatedness, also referred to as belongingness (Gravely, Roseth & Van Ryzin, 2009), is the need to feel connected to others. As social beings it is necessary for optimal growth to perceive being connected to others, and perceive the social environment as supporting. The need for relatedness becomes important in the educational context when one considers that for
an individual to integrate societies or group norms and regulations they need to feel connected to the group. (Deci & Ryan, 2000) These basic psychological needs are in SDT viewed as universal, and have shown to be consistent in various situations, contexts and cultures (Jang et al., 2009). Research has shown that for optimal human function and well-being all three needs must be satisfied sufficiently, one or two are not enough (Ryan & Deci, 2002).

To put the self-determination theory of innate psychological needs into context, SDT can be compared with two other broad psychological theories: Drive theories and personality theories. Drive-theories (e.g. Freud, Gay & Strachey, 1962) explain human motivation in terms of physiological drives. The basic idea of drive theories is that when a need is not satisfied people will, successfully or unsuccessfully; try to reduce the drive that follows. This perspective views humans as initially inactive. The purpose of action is the need for satisfaction rather than acting out of a natural tendency. For example, if a human being does not eat he will feel hungry and be motivated to search for food, but when the drive is reduced the organism will return to inactivity. In contrast SDT describe how certain psychological needs must be satisfied for the organism to flourish, but the function of the behavior might not be to satisfy the need. Furthermore, deprivation of these psychological needs does not, contrary to drive-theories, necessarily lead to an increased activity in order to satisfy them. Instead a human being will try to integrate experience, even if it is unsatisfactory of one or several needs, into relative unity. If unsuccessful to satisfy a need, an individual might for example use different kind of defenses or substitutes in order to attain some level of well-being. (Deci & Ryan, 2000)

Personality theories (PT) are another broad category of theories to be compared to SDT. The main difference being that PT generally view that psychological needs are learned whereas SDT view them as innate. Research on personality theories focuses on the strength of learned needs, thus viewing needs as initially equal and varying only in how important they are for the individual. Needs are thus viewed as part of the personal make up, determined by what is learned and not a natural part of the human organism. Yet, as argued by Deci & Ryan (2000) this has an important consequence: “Without the concept of innate needs, all desires are equal in functional importance if they are equal in strength. (…) The concept of basic needs, in contrast, implies that some desires are linked to or catalyzed by our psychological design.” (s. 232). In other words: if all goals relate to learned needs, as theorized by PT, all goals that are equal in strength would yield similar positive effects on well-being, since no need is more important for the organism than others.
The organismic dialectic perspective (Ryan & Deci, 2002) forms the backdrop against which this study revolves. SDT does not deny that drives, physiological needs or personality are important in human motivation, but assert that psychological needs are a necessary concept if one wants to understand the complex nature of human motivation and well-being.

2.1 Motivational concept in SDT

Motivation is an important concept in education and, as argued by Giota (2002), in education often viewed in a one-dimensional fashion, understood and determined from a teacher or adult point of view. Rather than stating that the degree of motivation - defined as the energizing of goal-oriented behavior - *per se* is a key to student performance, SDT differentiates between types of motivation as being extrinsic and intrinsic, or the lack of motivation – amotivation (Ryan & Deci, 2002). Motivation is a matter of intentionality, and an intention (“I will study for my exam tomorrow”) can be either extrinsically motivated (“because I need to get a good grade”) or intrinsically motivated (“because I enjoy studying”). It can also be amotivated (“I can’t study, it is hopeless”) which is equivalent to lacking intentionality. Amotivation has been found to be closely related to the concept of learned helplessness. In other words the energizing of goal oriented behavior can be of qualitatively different type not only of different strength. Early research on SDT focused on how extrinsic motivation (rewards) affected intrinsic motivation (enjoyment of the behavior itself). In a meta-analysis conducted by Deci, Koestner, and Ryan (1999) 128 studies were analyzed and the effect of external rewards on intrinsic motivation was determined. The study showed that external rewards have a significant negative effect on intrinsic motivation. Thus, while rewards do make a human person act, it undermines its own innate will to act.

*Intrinsic motivation* (IM) is the prototype of self-determined behavior. IM spring from values inherent in the behavior in itself, as for example doing something because it is enjoyable or interesting operationally separable from any external contingency. It is behavior that is motivated by the task itself, without the necessity for any instrumental value.

*Extrinsic motivation* (EM) is behavior motivated by external contingencies, like rewards, punishment, society or other peoples will. External does not refer only to events “outside of the person”, but to the degree of how external the extrinsic motivation is to the *self*. Feelings of guilt, shame and internal pressure is therefore viewed as *internal*, but not as in intrinsic because they represents regulations that have not been fully integrated into the self and are involuntary. Because intrinsic and extrinsic forms of motivation relate to different degrees of
satisfaction of the need for autonomy, they are hypothesized to lead to differences in outcome, whether it is academic performance or well-being (Deci & Ryan, 2000; Ryan & Deci, 2002).

Intrinsic and extrinsic motivation is often mistaken as being dichotomous (Rigby et al. 1992), viewed as counterparts where extrinsic motivation is the controlled form of motivation and intrinsic is the volitional form. From a SDT perspective this is an oversimplification because any external event can be interpreted cognitively by the student as supportive of autonomy, just as it can be interpreted as controlling. Extrinsically motivated behavior, for example “to study for an exam” can be more or less self-determined. The degree to which extrinsic motivation is self-determined depends upon the quality of internalization.

The process in which extrinsic motivation is integrated as parts of the self is the process of internalization (see Figure 1). It is defined as the natural process in which social factors (for example mores; values; regulations) are integrated as stable parts of the human self and is considered an important part of socialization. Different theories have described internalization in different ways, from Mead (1934) who described it as something that gets done to the individual by the social environment to SDT (Ryan & Deci, 2002) in which it is seen as a natural innate human process. The degree to which an individual has internalized a value will determine how self-determined his or her motivation to behave is, in turn affecting outcomes of the behavior. In other words, through the process of internalization external-regulations become more integrated, and thus take the form of self-regulations (Deci & Ryan, 2002). The concept of internalization adds further dimensions to the types of motivation, because differentiation is made between types of extrinsic motivation as being more or less self-determined, depending on how that behavior is regulated. This notion has an important implication for education: while education in general involves several instances of extrinsic motivation (grades, praise, etc.), it can be arranged as to either control or support student autonomy.
Behavior that is externally regulated (i.e. thru coercion) is not self-determined, and the regulation will not be internalized to the same extent as autonomously motivated behavior (i.e. providing choice), therefore subsequent behaviors will not be self-regulated. In the educational context, the degree to which a behavior is autonomous vs. controlled can be facilitated by the teacher motivational style (Turner & Patrick, 2004). If a teacher wants a student to do an assignment, using grades as rewards (e.g. “if you perform well you will get a good grade”) will likely result in less self-determined behavior than if a teacher uses an autonomy-supportive style (e.g. helping the student find own reasons for studying), and the value of studying will not be internalized in any qualitative way.

Different types of extrinsic motivation are descriptively arranged in line on a continuum (Figure 2). These are ranging from the least self-determined type, external regulation to integrated regulation which is a self-determined form of extrinsic motivation, supportive of the need for autonomy.

*External regulation* refers to behavior that is enacted in order to attain a reward or avoid a punishment. This is the kind of motivation considered by early behaviorist belonging to the
Skinnerian-school. There are two main issues with externally regulated behavior: (1) it is poorly maintained when the controlling contingencies no longer are present. The student who only reads the course literature because he is afraid of not passing pass course will be unlikely to pick up the book at any later point. (2) The second issue is the matter of transferability. The point of education is, especially for young children, to foster them for lifelong learning. If a student only reads a book in presence of reward or fear of punishment in school, the child is unlikely to read in other environments. The child will only read when it is forced to rather than doing it because she might enjoy it. This behavior can be observed in some instances of education, where student’s effort as soon as it is not being evaluated will drop to a minimum. The use of control, creating an external regulatory process in the students, in turn creates a feedback loop: the teacher has to adopt a controlling style in order to get the externally regulated, already controlled students to do anything which further enhances their regulatory process.

Introjected regulation is equivalent to external regulation, but refers to behavior being enacted in order to satisfy internal, rather than external, demands (Niemiec & Ryan, 2009). Studying to feel proud of oneself or to avoid feelings of guilt can be described as introjected reasons. It can be vividly described as getting an injection, where the behavior is motivated from within, internal but not integrated to the self. An important form of introjected regulation is ego involvement, and Nicholls (1984) describes it as when the student’s self-esteem is dependent upon his or her performance. When a student is ego involved during an assignment he or she will be acting less self-determined because the motive to perform will be to maintain self-esteem, rather than doing it out of volition.

Contrary, identified regulation is a self-determined form of extrinsic motivation where valuing the importance of the behavior is what motivates. For example, studying because one value the long term benefits of having a sturdy education would be a sign of identification. But studying because one fears a future where he or she would not get a job would constitute an introject. Integrated regulation is the fourth and most autonomous form of extrinsic motivation. It is an effect of the indentified regulation being even more integrated with other aspects of the self and is stable parts of the person. When something is integrated, the person can act out of volition and perceive a high level of autonomy. A student who studies to become a teacher to help others is extrinsically motivated, but will most likely perceive his or her reasons for studying as more autonomous than does a person who study out of obligation to his or her parents. Important to emphasize is that identified and integrated forms of regulation will not over time transform into intrinsic motivation, since intrinsic motivation is
based on the satisfaction derived from the behavior itself. Studying to be able to help others might be a well integrated regulation; at the same time the behavior is extrinsically motivated because the outcome (“to help others”) is “separate from the activity in itself.” (Taylor & Ntoumanis, 2007. p. 757).

Understanding motives to act in this multidimensional fashion, viewing why one acts rather than how one act underscores the complexity of the motivational concept and the need to analyze educational contexts, as well as teacher and student behavior, in terms of motivation. The relative autonomy continuum (Figure 2) emphasizes that while two students from the look of it might seem equally interested or uninterested in an assignment, the reason for doing so can differ. In turn creating different quality outcomes in terms of well-being, but also, as further developed in the following two sections: academic performance.

2.2 Self-determination in the educational context

SDT provides a frame for understanding motivation. An organismic-dialectic perspective on motivation in education can be argued to be important because it is a level at which teachers can practically intervene. While behavior is determined not only by psychological or social factors, individual teachers have little possibility to directly influence the institution or organization. Neither can the teacher directly influence the student neurological interpretation of events. But a single teacher can at a psychological and social level choose to adapt different kinds of behavior to support student development and well-being. Therefore, as suggested by several writers on SDT (see Ryan & Niemiec, 2009), the theory serves as an important frame for understanding how to influence and improve practice.

SDT has several important implications for the educational context. One is the instructional style of the teacher and the impact it has on student motivation. Early research by Koestner et al. (1984) showed that behavioral limits can be set in qualitatively different ways. The study showed that limits set in a controlling way led to less intrinsic motivation, as opposed to autonomy supportive limit-setting. Characterizing this support is the use of information rather than coercion. Research has since showed that autonomy-supportive teaching (compared to controlling teaching) can be linked to higher academic achievement, higher perceived competence, more positive emotionality, higher self-esteem, greater conceptual understanding, and greater flexibility in thinking. As well as more active information processing, greater creativity, and higher rates of retention. Research has also shown that autonomously motivated students, compared to students motivated by control, have shown similar benefits over different settings. (Reeve, 2002) This can be explained as an
effect not only of enabling intrinsic reasons for studying, but also creating more self-determined forms of extrinsic motivation. Research thus supports the hypothesis that self-determined (whether identified, integrated or intrinsic) behavior seem to yield better results compared to controlled behavior.

Early research by Deci et al (1981) showed that the motivational style of teachers is relatively stable over time but can only partly be explained by personality characteristics (Deci, 1995). Social climate and interpersonal skills has since shown to be important factors, suggesting that motivational style is largely learned and can be developed (Reeve, 1998). Niemiec and Ryan (2009) describes that controlling teacher behavior (e.g. monitoring, evaluation, reward and punishment) is an effect of (a) pressuring climate of Schools affecting the teacher, and (b) personal beliefs about motivation. Environmental pressures have also been linked to lessen ability for empathy (Cooper, 2004) which has shown to be an important aspect of autonomy-supportive perspective taking (Reeve, 2002). Teacher perceiving pressure, whether external or internal has also shown to be an obstacle in forming quality relationships with students, creating a climate where control is the “solution” that further add to the problem (Nurmi, 2010b in press). “Control (through power) is generally viewed as the process by which one gets what one wants, in schools characterized by teachers setting the limits and standards. But as it is argued in this article (…) control is the very source of the disciplinary problems it tries to correct.” (Nurmi, 2010a, s. 285).

Distinguishing between different types of control has proven to be important in the educational context, and differentiation is in this study made between external control (rewards, deadlines, but also imposing feelings of shame, guilt, etc.) imposing an external locus of causality, and behavioral control which refers to rules and expectations about behavior in certain contexts. While the first is assumed to correlate negatively with autonomy, the latter is theorized to be supportive of autonomy because of its informational nature (Nie & Lau, 2009). To state what is expected seems to be qualitatively different from saying how one should behave. It can be viewed as the difference between imposing rules, and simply explaining rules.

Behavioral control is also closely related to another important concept: structure. Structure refers to information about what is acceptable behavior within a certain social context (Skinner & Belmont, 1993). In other words: providing informational feedback about what is expected, what is accepted or even appreciated and why this is so – enhance self-determination while control in the externally or introjected sense will not.
2.3 Autonomy-supportive motivational style

Autonomy-supportive teaching can be defined as: to “facilitate in the students the motivational orientation of being an ‘origin’ (i.e., active, having an internal locus of causality), rather than a ‘pawn’ (i.e., passive reactive).” (Reeve, Bolt & Cai, 1999. s. 537) The purpose of such teaching is to help students develop “a sense of congruence between their classroom behavior and their inner motivational resources” (Reeve & Jang, 2006, s. 210), increasing the possibility for students to perceive an internal locus of causality. A number of studies have shown that autonomy-supportive teachers increase student perception of self-determination and competence (see, e.g., Vallrander et al., 1997; Williams, Weiner, Markakis, Reeve, & Deci, 1994). Niermiec and Ryan (2009) describe how a student’s autonomy can be supported by: “minimizing the salience of evaluative pressure and any sense of coercion in the classroom, as well as by maximizing students’ perceptions of having a voice and choice in those academic activities in which they are engaged.” (p. 139).

Findings by Reeve et al (1999) suggested that autonomy-supportive teachers were more likely, compared to controlling teachers, to spend time listening to the students, letting students hold the instructional material, ask what students wanted and responding to student questions. The autonomy-supportive teacher would more frequently take the students perspective through perspective-taking, empathic statements, and would be less likely to use directives or give the students the answer. The study showed that these behaviors supported student intrinsic motivation and process of internalization. The autonomy supportive teacher is in other terms student-centered, flexible, informational, motivates using student interests, supportive and responsive (Reeve, 2002). In a later study, Reeve & Jang (2006) showed that the behavior the autonomy-supportive teacher exhibited also correlated positively with student self-reported autonomy, concluding that these behaviors did in fact satisfy the need for autonomy when compared to controlling behaviors.

An issue in education is the fact that not all assignments can be inherently interesting for everyone. Students might not perceive a certain assignment, or book as interesting or enjoyable. To motivate students to do uninteresting assignments teachers often use external contingencies; deadlines (Amabile, DeJong & Lepper, 1976), rewards, or goals: “Doing this will lead to that” where that is the external contingency, e.g. “doing this assignment will lead to a better grade, and in the future the possibility for a job”. This is generally based on the assumptions that without an external reason for doing an activity, the student (or any person) will not perform the target behavior (Deci, 1995). However, using rewards will most likely have a negative effect on intrinsic motivation (Deci et al., 1999) and when imposing an E-
LOC decreasing the level of self-determination. As previously described, extrinsically motivat ed behavior can be self-determined and one way of enhancing self-determination is to provide a rationale (a “reason” for doing the activity) in an autonomy supportive fashion.

Reeve et al (2002) showed that externally motivated behaviors, in the form of doing an uninteresting activity, can become relatively self-determined. This occurs through the process of identification with the importance of the behavior, and this development depends on an autonomy supportive rationale. The study showed that if a rationale were presented in a non-controlling way (compare “you should do this because it is required from you” with “we are asking you to do this because it is useful”), and acknowledging the participants feelings (“we are aware that this might at times be perceived as frustrating, but we ask you to try hard”) subsequent behaviors were more self-determined. The study showed that an uninteresting assignment can be externally motivated in qualitatively different ways depending on how the rationale (the reason for doing the assignment) is presented (controlling, non-acknowledging compared to noncontrolling, acknowledging). Prior research (Deci, et al 1994) had shown similar results: participants taking part of an uninteresting activity thought the task were more important if provided with a rationale for the assignment, but if the rationale were communicated in a controlling way, participant self-determination and the extent to which they participated were lower. Thus while a rationale improve increased importance, it must be provided in an autonomy-supportive way to enhance student self-determination.

3. The present study

Research on SDT has traditionally been a product of the psychological empirical tradition, based on statistic analysis, and research using a qualitative perspective is to date sparse (for an example, see: Ahlberg, Mallett & Tinning, 2008), leaving a vast space for further inquiry. Building on previous research on SDT this study sets out to further our understanding of autonomy-supportive teaching from a qualitative scientific perspective.

The purpose of the current study is (a): to describe and analyze the relation between teacher motivational style and student behavior. And (b): to theoretically develop the self-determination theory perspective on education and role of autonomy supportive teaching. To explore this purpose three research questions were formulated as to guide the observations of classroom activity:
(1) How are teachers working to create student motivation and how does their work relate to actual student behavior?

(2) How are teachers creating conditions for the students’ voice and choice in classroom, and how does these conditions relate to student behavior?

As proposed by Chanal, Guay & Ratelle (2008) there is still a need of more SDT intervention studies, leading to more knowledge about how teachers can be autonomy supportive. Therefore a fourth question regarding the possibilities for interventions was formed:

(3) How can self-determined forms of motivation be supported in the educational context?

To evaluate what is not there is an important aspect of the qualitative inquiry, Patton (2002) describes it as follows: “Making informed judgments about the significance of nonoccurrence can be among the most important contributions an evaluator can make” (p. 296), there for the fourth question involves not only describing what is evident, but what from a SDT perspective is evidently absent.

4. Method

4.1 Participants

The participants consisted of students from one junior high school grade eight class \( (n = 20, \text{ males } = 8, \text{ females } = 12, M \text{ age } =15) \) and their teachers \( (n = 3) \). The time period sampled was three weeks, three days per week, approximately 20 hours of classroom interaction. The situations sampled were lessons in the following subjects: Math, natural sciences, language, and social sciences. Because motivation is viewed as global, contextual as well as situational (Vallerand, 1997: Vallerand & Ratelle, 2002) this approach was used to provide a broad account of teacher and student behavior, as well as the general nature of the motivational context.

Participants were chosen due to certain characteristics rather than being representative of a population. Further, they were chosen because of their theoretical relevance (Denscombe, 2002) assumed that eight graders would have sufficient experience of junior high school to be accustomed to the environment, and still have over a year left of their education.
4.2 Procedure
The choice of observation as a method was natural as the aim of the study is to analyze interaction between teacher and students (Mason, 1996), as well as to provide further theoretical understanding of SDT concepts and not quantifiable data. The method was inspired by ethnographical research (Suzuki et al., 2005), as the aim was to understand the relation between teacher motivational style and student behavior. However, the observation was unobtrusive and more naturalistic compared to ethnographical methods where immersion is considered key feature (Marshall & Rossman, 1999). As a result the possibility to understand how participants create meaning in different situations was limited.

The researcher was what Mason (1999) describes as participant-observer: Interaction between researcher, teachers and students occurred but was not actively sought, apart from the situations when questions were asked to clarify some aspect of what was observed. An important aspect of any observation is the effect the researcher will have on what is observed (Patton, 2002). As described by Shaughnessy, Zechmeister and Zechmeister (2009) one way to counteract it is to be aware of the very fact that reactivity might pose a problem. In the present study, reactivity was assumed to be limited during the observation, as the researcher did not stand out, neither taking an explicit adult role, nor trying to immerse into the situation – but remaining an inquisitive observer (Patton, 2002). Reactivity was also assumed to be low because the students were used to having additional observing adults in the classroom. It was not uncommon for the class to have student-teachers visiting or having additional teachers present.

4.3 Ethical considerations
Formal consent was given by the principal, through the teacher-contact at the school. The purpose of the study was explained as being about classroom interactivity from a psychological perspective. A standard confidentiality form was signed by the researcher in order to assure that no sensitive information would be passed on, and to ensure anonymity of participants. At an initial meeting with the contact teacher and the class, the researcher’s role was discussed and participants were informed that they had the right to end the observation at any time. The anonymity of the participants was at the initial meeting ensured.

4.4 Measures
In previous research a number of behaviors have been established as autonomy-supportive (AS) respectively controlling (C). These behaviors are both what sets autonomy-supportive
teachers apart from controlling teachers, as well as being behavior that increase student’s self-reported autonomy. Building on these concepts and definitions (see: Reeve, Bolt & Cai; 1999; Reeve, 2002; Reeve & Jang, 2006) measurable constructs were formed to fit the qualitative aim of the study.

While the constructs are clearly related concepts in previous studies, and the overall theory, the operational definitions (what is actually assessed) are clearly modified. The was aim to explore above questions, which are dimension and tension fields rather than quantifiable aspects, and therefore purely numeric measurements, frequency, minutes, etc. was not used. The constructs are to be understood as different behaviors that can be either AS or C, in turn creating more or less self-determined behavior. The constructs are not to be understood in an either – or fashion, but rather as different dimensions of behavior, which can lean more towards the one or other side – leading to different behavioral responses.

4.4.1 Construct 1: The presence
The nature of teacher presence was assessed thru: how and if the teacher took the student’s perspective through empathic statements acknowledging the student’s perspective and/or experiences; asking what student wants and desires; being responsive to student generated questions and behavior.

4.4.2 Construct 2: The vocal frame
How, when and to what extent the teacher is fully attended to the student speaking was determined to be evident when teachers were a) listening without interruption b) using verbal and non-verbal signals of attention (humming, nodding, acknowledging), and c) responses being contingent on what students say. The vocal frame was further constructed of an assessment of how and when teachers were speaking, and through how, when and to what extent the students were speaking.

4.4.3 Construct 3: The behavioral frame
The behavioral frame assesses how behavior is motivated. Assessment of how the room (or no room) for self-determined behavior is created is made through: a) how questions are asked, and how the room for questions is created. b) How students are allowed to work in own way; how/if choice is provided. c) How rationales for assignments are provided. For example explanatory statements provided (verbal, non-verbal, written) and the nature (autonomy-supportive/controlling) of assignments.
4.5 Data & analytic procedure

The data was gathered during three weeks of observation and consist of field notes which were transcribed on a daily basis. The aim was not to provide individual accounts of each teacher and therefore data is presented categorically, based on theme rather than participant. Hence, results should not be interpreted as what one or all teachers do, but rather as themes that emerged during analysis of the observational data, providing further understanding of motivational behavior.

The analytic process was divided into a number of stages: First the data was organized. This occurred thru the writings of daily field reports, based on field notes, and later as the organization of these. Secondly, patterns were located through analysis of the original field notes and organized reports. In general, these behavioral patterns formed themes, which in the results section are presented in three broad categories (Marshall & Rossman, 1999).

All transformation of data entails data reduction – the data becomes more structured for each step along an analytic path, yet it also loses some of its original depth. This was counteracted to a certain extent by going back to the original field notes regularly.

5. Results

The results of this study are presented categorically, each category containing a number of themes that emerged during analysis. The categories are followed by a conclusion summarizing the results.

5.1 The venue

5.1.1 The teachers

The teachers were all experienced teachers, and each of them with more than 2 years experience of the class. Their relationship with the students was assumed to be based on knowledge about the individual, as well as knowledge about the class. The teachers seemed generally happy with their students, at the same time being aware that there were problems as well. When students were asked whether they were happy with their teachers they said they were, and that they felt that their teachers cared and showed attention. Throughout the manuscript the names of individual teachers and students have been altered to ensure participant anonymity.
5.1.2 The students
By observing and asking the teachers and students I got a clear picture of the class. Soon it became clear that there were different levels of motivation in the classroom. There was also a difference in the quality of motivation among the students. Some of the noisier students were generally amotivated and did not perform well academically. Contra-intuitively there were also high-achievers in this group. It was clear that the same behavior observed had different types of motivation underlying it. Some were feeling incompetent while others did not perceive education as stimulating or challenging. This pattern also occurred among the female students. They were generally more subtle in their resistance to school discipline and order, but low achievers were also present in this group.

5.1.3 The classroom
All lessons observed were held in the same classroom, a large rectangular room with large draped windows on one side. There were bookshelves on the opposite side filled with different kinds of course literature and some student made objects. There were desks placed in front of the whiteboard and the teacher had a desk and chair there. The classroom and desks was usually cluttered, as the students did not seem to care too much about their work environment.

5.2 Categories
A number of important themes related to the research questions in this study emerged during the analyzing process. These themes have been derived from moment-to-moment interaction between teacher and student, and are analyzed in relation the immediate behavioral responses, but also subsequent behavioral patterns. The themes are exemplified with narrative descriptions to give a detailed account of what was observed. The themes are descriptively arranged in three broad categories: 1) how students were motivated in dialogue 2) the role of motivational behaviors. The third category revolves around 3) the classroom management.

5.3 Category 1: Dialogue
5.3.1 How teachers direct attention
During a class, some of the boys are working independently on the computers located in the classroom. They are supposed to be working on a writing assignment, but are instead looking at different images, talking loudly about everything but the
assignment. After a while the teacher, Carry, who has been helping some of the quieter girls moves over to them. She is apparently upset and harshly tells them “This time is valuable for you, why don’t you value it so you won’t get any homework?” the boys are silent. Somebody murmurs something. Carry continues: “Why aren’t you using this time to do what you should?” she doesn’t pause, the questions seems rhetorical “You will have to take responsibility for this yourselves”.

Carry continues to help the girls; meanwhile the boys continue to play on the computer. After about 20 minutes Carry repeats the procedure, this time threatening to ban them from the computers.

Communication and dialogue are central in the teacher-student interaction in the classroom. Three general patterns of communication were observed: a) externally controlling (C) b) consensus-seeking (CON), and c) student focused (SF). These practices, or styles, involved the use of direction referring to how the teacher (intentionally or unintentionally) tried to direct student attention to an object. The styles differed in that either the direction was turned to external demands (C), specific task and behaviors and the reasons for doing them (CON) or the student itself (SF). The way in which the teachers at different points directed attention to different objects was observed to have impact on the student behavior.

The first description serves as an example of the externally controlling communicative practice which involved directing the students’ attention to the fact that they were not performing certain expected behaviors, and thus not reaching the goals of education. Characterizing this style is that the object of attention is defined by the teacher, and is external to the student in turn creating an externally regulated condition. When attention was directed onto values that weren’t of the students choosing, resistance or compliance generally followed.

“Today are we going to work on this today” Charlotte explains. A boy who is sitting in the second row responds immediately, by questioning the assignment, “Why, why is it important?” Charlotte, not surprised by his behavior, explains in a soft voice: “Because you need to know this in order to pass this course”. She pauses. “You do want to pass this course, right?” The boy nods and refrains from further challenge.

By trying to get the student to meet her half way the teacher, in this example, intends the student to understand the underlying importance of the behavior. This can be seen as a
consensus seeking practice which was used to make students identify with the importance of the behavior in order to enact it willingly. CON did however often result in a controlling response pattern, with students challenging the teacher’s idea, at best reluctantly accepting it, or simply complying with it without actually reaching a consensus. The intention of making the student understand but also being a part of the decision making process, were often not realized.

Compared to the externally-controlling style, the teachers tried more actively to make the student understand, intending them to see what they are doing right or wrong. What seemed to be an issue was that the final judgment generally was passed by the teacher. In several of the cases where this style were used the students seemed too identify the teachers power leading to externally controlled responses – rather than identifying with the underlying importance of the behavior.

Judy is trying to help an unmotivated student. She positions herself across his desk, assuming what could be interpreted as an interested and positive pose, tilting her head when she asks. “What are you going to work on today?” Her voice is friendly and calm. The student, reluctant to do anything says that he doesn’t understand the task – “there isn’t anything to write about!” he exclaims. Judy smiles and continues to ask him open end questions. “How did it feel when…” … “What happened then?” Slowly the student eases up, lowering his shoulders. Judy listens to him as he tells his story, she asks him to elaborate on what might be important parts. After about fifteen minutes the student is relaxed, leaning back on the chair talking to Judy.

Judy asks another student who wanders around aimlessly in the classroom to come and sit down with them. He is reluctant and starts to express his frustration about how he feels and how he cannot write an essay when he does not know what an essay is. Judy tells him, in a sharp tone to be quiet. “Stop the nonsense, because it is not much fun for anyone to listen to you”. She tells him to sit down, and he complies.

When the teachers used a student focused style what she was doing was to direct the students attention onto himself. The object of attention was the student himself, rather than what the teacher wanted or the objective of education. A different way of understanding it is that the student in the example became the mediator between his own inner resources and performance, compared to controlling and consensus-seeking practices where the teacher often held this role explicitly directing the student’s resources towards external contingences.
When student centered, the teachers try to make the student responsible for the following direction of attention in the dialogue, and subsequent behavior. One strategy used by the teachers was to start off by asking the students for their point of view, and from their perspective moving towards a consensus. What seemed to happen was a shift of power, the teacher leaving it to the student to determine the outcome of the dialogue, rather than having that outcome explicitly or implicitly predetermined.

This can be explained as a shift in the power-relation. While C and Con styles are based on the teacher using their power stating what is wrong, and why (a fix direction of attention to what is important and why) – the SF style involves letting the student explain what is right, wrong, and why based on his or her pre-conception. The student is given opportunity to direct the attention in the dialogue to something that is important for him or her, rather than acknowledging what the teacher finds important. In the example above the style is used to help the student enable his own potential, integrating experience, but also in a consensus seeking way to make him value the assignment, identifying with the underlying importance. In other cases the style were used primarily for the student to actively choose, rather than just responding to whatever the teacher put forth.

The underlying process of directing attention onto external demands is what primarily sets C and CON apart from SF. While the SF style in theory can be more or less perspective-taking and friendly, the style revolves around making the students aware of themselves, what they are doing, why they are doing it and what they could be doing differently. Contrary to being aware of what the teacher wants, being implicitly or explicitly forced to respond to it.

5.3.2 Means of production in dialogue

Charlotte is talking to Jonathan who has been playing with a football during class. She sits near him, talking in a friendly voice. “I don’t think anyone appreciates you kicking the ball around, yet you do it. How come?”. Jonathan is silent, but Charlotte doesn’t give up. “Jonathan?”

“Because I like to!” he exclaims looking hastily at Charlotte, then at the floor. Charlotte answers: “I do not believe that’s the real reason”. There is more silence.

“Ok, it’s because I don’t like this task at all. I don’t get it. It’s stupid”. Jonathan looks at Charlotte while speaking. She replies: “Ok, that’s something we can talk about and try to solve”.
What is it then Charlotte does, that seems to work? Or rather what is it she does not do. Motivational dialogue did not only include a direction, but also the production of content. In conflict situations but also in general dialogue, the production of content is particularly interesting because whether or not the teacher delivers content seemed to make the student more or less responsible for their own subsequent behavior, creating more or less room for subsequent volitional behavior.

Teachers trying to motivate students can be understood as using either content-providing or content-supportive communicative style. Descriptively arranged in Figure 3 the dialogue leads to two different kinds of teacher behaviors, in turn resulting in different quality of student responses. A) The teacher provides the content in the given situation. This can be explicit “this is the problem, and this is the solution” or implicit “we will do like this”. B) The teacher makes the student responsible for producing the content by supporting student constructed solutions. Asking open questions like: “What did go wrong here?”, “How did you perceive this situation?” as exemplified above. Besides creating a space for the student to formulate his or her content, the teacher also supports the act of producing the content thru empathic statements, using the student perspective. When A was observed, the student response would generally be either to resist the control or to be obedient, lacking the students own voice or choice in the matter. Stated differently the content was put forth by the teacher and the student responded to it. When B, the student generally answered in a more nuanced way, creating their own content: reflecting on their behavior, providing their interpretation and explanation of the behavior.

A and B patterns relates to previous C, CON and SF styles, where the content providing style is primarily used in conjunction with a controlling or consensus seeking style, the content supportive style were often related to a student focused style. These two
communicative practices results in different responses, theorized to lead to more or less self-determined behavior. Two reasons for the teachers adopting the more controlling style of A were observed to be i) pressure to achieve a certain goal. If the teacher wanted the student to understand that X is a desired goal, the communication style were observed as leaning more towards A than B, and often towards C rather than SF. The second reason was ii) pressuring climate. When class size were normal, 20 students, the communication revolved around controlling or consensus seeking content providing styles, and when class size dropped (often when students worked independently) to about 8-12 the student focused, content-supportive style were more often used. Whether this was an effect of the class size alone, or the fact that when working independently the most troublesome students left the room – is unclear.

5.4 Category 2: Behavior

5.4.1 Intention and reality
The teachers often spoke about motivation; mainly in terms of something the students had or didn’t have, often referred to when talking about academic achievements, and how well the students perform in class.

It’s the last class of the day. The sun is shining outside, moments ago it was raining. Judy has had some trouble keeping her desired order during the class; with 14 students, working on different assignments she walks from desk to desk, trying to help everyone. In the meantime three girls are sitting closely together, playing with a cell phone, giggling. Two of the boys in the class are unruly, having trouble sitting still, moving about in the classroom. Between desks, Judy asks the students to be quiet, effortlessly changing from her harsh voice when scolding to a friendly warm voice when assisting the working students. When the class comes to an end Judy, apparently tired, asks everyone to sit down. She begins to talk about how she is only one teacher, and they are many students with different needs. She emphasizes how important it is that they take own responsibility for the work climate. As an observer, the talk is inspiring, the students however seem to show lack of interest.

In this situation, the students seem to identify the importance of being quiet. When one student tries to interrupt another student hushes. They do not however; seem to pay the teacher much attention. The majority seems stuck in daydreaming, perhaps about what they will do when class ends and with it the beginning of leisure. One student tries to cut Judy off. “What, what do you mean? When is that?” but his
friend tells him to be quiet. “Shush so she can speak. So we can go home!” Judy continues her talk, praising some of the students for being “good and getting far today”, in the context being understood as a praise of them doing what they ought to do.

Judy ends her talk stating that “you need to find your inner motivation, you need to set your own goals”. She tells everybody goodbye, and the students rush off home.

The teacher’s intention is to make the students understand the underlying importance of setting their own goals. The students are inattentive; they have very likely heard these kinds of “pep talks” before. Like most students observed in this study, these students have identified the instrumental importance of complying (being quiet) in order to attain a desired outcome (to end class and go home) – a form of external regulation. This becomes particularly clear if compared to when the same kind of talks are held at the start of a class – without the promise of reward compliance is significantly lower, analyzed as a clear transferability problem.

Being told what to do and why in a perspective taking way might be enough do endorse the value of an assignment or task but to facilitate more complex behaviors, interest and student attitudes, it seem to lack effect. The students learn that if they are quiet, they can go home, but what they do not learn is how to motivate themselves in any qualitatively different way.

It’s the end of the first class of the day, the class has been a bit disruptive, and Charlotte seems to be tired. At the end of class she tells everyone to sit down. “I don’t get it. Why are you behaving this way? Calling each other names.” The class does not really seem to get what she talks about, the use of bad language is probably not considered to be something out of the ordinary. “Why do you talk to each other in this way?” Charlotte pauses. One student, one of them who has been talking the most during class but also performs well academically, speaks up in response to her question. “I can explain why.” Charlotte looks at and cut him of: “It is not acceptable behavior; I really hope you think about this”. The class ends.

If talking about motivation were to be a reliable way of enhancing their goal oriented behavior, there would be some reoccurring effect after such a talk. While the following classes are all different from each other, the interaction remains similar. Talking about motivation in a one-way fashion does not yield the kind of behavioral adaptations that are
intended, and serves as a concrete example of how the direction in dialogue (see 5.3.1) serves as a fundamental problem in creating more integrated forms of motivation. Also, the use of pattern A content delivery to solve the problem creates a situation where it’s unclear if the problem is perceived in the same way by teachers and students. The student seems to be aware that these talks are a part of school talk, but when asked they responded that they didn’t see the point of it. A couple of the students explain their behavior after class: “We will still behave as we do, it doesn’t really matter if they tell us to be quiet. It doesn’t work”

5.4.2 Supporting choice

It is the beginning of class. Sam is sitting by a desk. Charlotte comes over to him and asks. “Are you sure you want to sit here?” Sam replies that he wants to sit there, and that it will be okey because Bill isn’t there today. Bill is a student who disturbs Sam, and vice versa. “Will you be able to study here?” Charlotte asks, using a soft and friendly tone. Sam thinks a second or two, nods and replies that he will. Charlotte smiles and walks over to some of the other students. During the class, Sam, who is said to have a generally hard time sitting still, works hard on the assignment.

Within the small contextual frame that the classroom constitutes, what teachers say and do from moment-to-moment can have large effect: asking what Sam wants, thinks and providing a pause for him to collect his thoughts gave positive results. The lack of controlling tone and coercion into making the “right” decision (B+SF) seem to make Sam feel that he is responsible for his own actions. This can be contrasted against situations were Sam is coerced; told what to do and how to behave, but often without any way for him to find his own reasons (A+C). The lack of any desired outcome (in the example a particular behavior) seems to, as theorized in SDT, enhance an internal locus of causality, facilitating awareness in Sam that he has a choice and that the choice is not whether or not to do the right thing – but rather to choose for himself what is right. While the objective of education is still clear (the task has to be done) the extrinsic motivation does seem to be interpreted as controlling.

Sam, being an underachiever, gets relatively large amount of attention. The same behavior pattern seen in more successful students, like Josh, does not seem to yield the same care from the teachers. Sam isn’t assumed to handle choice very well and therefore he receives support. Josh on the other hand is performing well on tests, and is therefore assumed
to handle choice well and left to his own device. When compared during the same learning activity it is clear that Sam who is supported works more intently then do Josh.

Choice alone seems to be largely dependent on the motivational quality of the student, regardless of prior academic achievement. Sam and Josh are both unruly students, but their academic performance differs. When Sam receives teacher-supported choice he seems not only to enact behaviors that increase the possibility for academic success, but also seem to do it volitionally. Contrary, Josh who receives unsupported-choice does not seem to acknowledge the fact that he can choose. This can be contrasted against other observed situations where students are asked to perform target behaviors, and were provided with choice. Many of the students seem to interpret the unsupported choices as controlling – choosing between one or two preconceived behaviors seem to be acknowledged as equal to having no choice at all.

5.5 Category 3: Class management

The following describes four reoccurring themes which constitute the primary ways of classroom management in the observed class. Classroom management can be defined as different ways of structuring and managing learning activities, as well as shifting in-between them during the same learning-activity, and the motivational style used during these.

5.5.1 When the students are supposed to listen

This morning’s class is about to begin. The students seem aware of that Charlotte wants to talk to them. Some are sitting in their desk, some are unruly moving about. And some are still in the hallway. Many seem reluctant to settle in. “All right, we are about to start. Settle down” Charlotte tells the class in a friendly tone. The students’ begin to settles down. Some are still chattering as they pull out their chairs. Today’s topic is some video game. Charlotte positions herself in the middle of the room, waiting for silence. It does not come. “Be quiet” one of the girls in the class yells. “She wants to say something, don’t you get that?” One of the boys reply: “We are talking as well!”.

Charlotte gets enough and tells them to be quiet. When the relative calm settles she continues. “All right, for the next 40 minutes we are going to work with a new topic…” She explains the new area, occasionally writing on the white board and making pauses to hush those who start to speak about something else. During her
presentation about half of the class seems inattentive, some in the back are with low voices talking about the videogame, others are simply not paying much attention to Charlotte or the white board. When Charlotte is done with her presentation they students are to work with a task. Many of those who didn’t pay attention are the first to reach up their hand and ask for help.

All teachers observed used teacher-centered management at different points. Some used it when presenting a new subject area, others more generally. What characterizes the teacher-centered style is that the teacher stands center front, talking to the class and at key points asking them to respond. If the response is valid, praise is given. If not, the correct answer is either given or some other student is given the opportunity. The motivating properties of this way of teaching are particularly distinguishable when considering how the dialogue is constructed. The direction is clear: attention should be on what the teacher says and does, and the content is clearly delivered by the teacher before the students. The teacher holds the instructional material, and the dialogue is linear from the teacher to the students. Replies are given on demand and students take a reactive position. This reactive position is further enhanced by the teacher effectively hushing anyone speaking when they ought not to, and encouraging answering the questions. They reason to pay attention is primarily “because you need to know this”, but this reason can be interpreted as being undermined when the students who does not pay attention gets everything explained afterwards. Activity during these learning activities are generally low, students are either listening quietly or paying more attention to their cell phone or friends than their teacher.

5.5.2 When the students are working “freely”

Judy speaks to the class about what they are supposed to be doing during the following hour. “You can either work with assignment A or assignment B, which is preparation for test C”. One of the students, Josh, continuously interrupts her with remarks about what she say, or by talking to other students. Two boys are throwing a paper ball to each other. Judy looks at Josh “ok, that’s enough – be quiet, you are interrupting me and stopping me from holding this presentation”. When one student murmurs something about why they ought to work with this she Judy tells him that they have gotten the goals for this course described to them, and that he can check the information he’s got.
After Judy’s brief presentation students take off in every direction. Some leaves the classroom entirely, some head to the backroom where there are a few seats, and the rest stay in the classroom. Judy heads off to lock away a couple of balls that the students have played with during the class introduction. One student waits for her to return, “I don’t know what to do” he says when asked. There is a relative calm in the classroom, as well as in the other locations. The students are not moving about as much as when they are all in the same room, but only a few are actually working with the assignments.

While forced to sit in their desks listening many of the students resist or are inattentive, but when they are asked to work in own way several of the students gets little done, using the time to chat about videogames, check in internet or playing around. A few sit by their desks staring at the work before them, often listening to music.

“Today we have a lot to do, so pick up your work where you left it and continue working”. It’s the start of class one afternoon and Judy has just begun talking. She has barely told the students what to do and already are the chairs scraping over the floor. Some students leave the room, others settle down by the computers. A couple sits still at their desk. The actual work that gets done is varied, most of the student’s in the classroom talk about random things, and when Judy comes to check they either do not care or try to look busy.

The observed students can during “independent work” be divided into three groups: generally motivated (small), randomly motivated (medium), amotivated (small). Characterizing the largest group is that they do work with the assignments, but not in a linear sense rather jumping between longer periods of chatting about everything but education – to working with the task. They often state that they “don’t really know what to do”, or seem to lack interest. Education is for this group something that “happens to them” rather than something they actively engage in. The generally motivated students are few, and often they seem to get disturbed by their classmates. They usually sit by themselves getting thru the assignment in an orderly fashion. When asked why, one of the students simply states that “it has to be done in order to pass this course”. While working intently, students in this group does not seem to be very interested in the work that they are doing. Few of the observed and asked students reveal any intrinsic incentive for doing the work. The amotivated group is hardly noticed by the
teacher: the students are rarely causing any disturbance, instead they sit by their desks doing nothing at all, staring at the work before them, listening to music, exhibiting indifference.

These learning activities can be described as promoting a *self-centered* focus. While this is hardly intended by the teachers, who want the students to work independently on different assignments for their own sake, the actual quality of work getting done is highly varied. The activity during self-centered activities seem to largely depend on the quality of motivation and interest among the students, suggesting that those kind of learning activities are ill suited for amotivated or externally controlled students (compare Figure 2). These activities further underline the difference between teacher-supported choice and non-supported (see 5.4.2), the self-centered activities generally leaning towards the later. It seems that choice alone is not enough to facilitate self-determination, suggesting that the support from teachers is needed to ensure that the “freedom” does not become another demand.

### 5.5.3 When students are working intently

The students have been working relatively freely, while the teacher has been moving about from room to room, doing some things she haven’t had the time to do, helping some as she pass by. About halfway into the class the teacher ensembles everyone, explaining that the last thing they have to do today is a particular assignment. The students are divided into groups of two, and each group is given the needed material to complete the task. The teacher explains the task and the student starts to work intently, some muttering about that they want the class to end. After a little while the teacher starts to check which have completed their assignments, letting those who have leave the classroom.

These task-centered lessons, or parts of lessons, shares feature with the teacher-centered style. The teacher is still a center figure, sometimes holding the instructional material and often creating a clear direction in the dialogue. However, working on the assignment students is also active in a much more deliberate and purposeful way compared to teacher-centered and the self-centered arrangements, and there is always the option to ask for help with a given assignment. The teacher uses directive-statements and pressuring language as well as making completion of the task of instrumental value, rather than trying to make it of personal value. Often used as a means to an end, these task-focused learning activities are largely depending on the reward to be enough to motivate the students. In some cases the reward is made
explicit: do the assignment and get to do something of your own choice, or end class earlier. At other times the reward is simply to get thru to the next part of the course, receiving a grade or not having to do it at home.

5.5.4 When teachers are listening

It’s the middle of class and Charlotte is sitting with a group of student’s. She is not saying much, rather she encourage them to speak. “What about this?”… “How do you mean?” The girls are having a conversation about an assignment, discussing their different answers. They all seem very interested. At the other end of the classroom three other students are working on the same assignment. One listens to music, the other staring at the ceiling and one actually writing. “Well, I think that this is the correct answer!” One of the students cut another off. Charlotte is quick to intervene. “Now, give him a chance to elaborate first, before you cut him off”. The first student continues, explaining his answer. Then it’s the others turn.

While rare, these situations show how the teacher when taking a different position in the relation to the students can enhance their performance. These student-centered activities revolve around using dialogue between teacher and student, and student - student, as a way of teaching. The use of student-focused communicational style creates self-awareness, and the lack of content creates a space for the student’s own reflections.

In the example, the teacher does not provide the content; instead she lets the students develop their arguments, moderating the dialogue at times when it’s needed. This in turn seems to enhance their motivation to actually participate, making their action deliberate and intentional rather than reactive. Compared to the self-centered learning activities the student-centered style does not emphasize completion of the task, rather its participation in its own right that is of primary importance. The teachers, when working student-centered, does not differentiate between student behavior (process) and completion of the task (goal), viewing the behavior as an achievement in its own right.

5.6 Conclusion

The results presented suggest that whether or not the teacher stands in front of the class lecturing learning conditions can be managed to support student autonomy. This seems to be dependent on the direction of attention, how content is produced and well as how choice is
supported. This can be understood as the difference between the manifestation (a matter of how a situation is arranged) and the conditions upon which the activity operates (controlling or autonomy-supportive conditions). Another way of depicting it is that is the difference between an intention and creating the condition make it possible to realize it. In the following the difference between manifestation and the conditions of learning activities will be further analyze:

Working independently – without the need of the teacher – was viewed as important by the teachers. The intention seemed to be to promote responsibility. Contrary, the observed independent work seemed to create conditions that made it hard for the students to achieve what was expected of them. The problem seemed to be that not all of the students had developed the needed self-regulation – the ability to regulate one’s own behavior in accordance with both intrinsic and extrinsic needs and goals a function of the integrative tendency (Deci & Ryan, 2000) – to use this free time in the way the teachers intended. When the student’s did not work intently during these self-centered learning activities the teachers often resorted to control, creating a negative feedback loop which worsened the initial lack of self-regulation by enhancing an external locus of causality (deCharms, 1971. For a discussion on the negative feedback loop of control, see: Nurmi, 2010a).

Viewed from the SDT perspective of human development (Ryan & Deci, 2002), the self-centered learning activities can be viewed as a back-and-forth process: the students were used to a teacher and task centered agenda, characterized by external control including monopolizing the learning materials, providing solutions and using clear directives and commands (Reeve, 2002). When the same students were supposed to be working independently with tasks they had a hard time regulating their own behavior in accordance with the teachers intentions, because the control was no longer present. This can be described as the students taking “one step forward” towards self-regulation. By doing what they found of intrinsic value, their need for autonomy was supported. However, when the students did not use their time as the teacher had intended the teacher resorted to controlling behavior, creating a “one step back” response, where the student resort to controlled behavioral responses, whether resistant or compliant.

One aspect of the relation between manifestation and the operating conditions of learning activities is the role of dialogue. Prior research by Reeve et al (1999) found that autonomy-supportive teachers and controlling teachers talk to the same extent, but AS was perceived as listening more to students. The results of the current study suggest that what sets controlling communication apart from autonomy-supportive is the use of direction and content support. In
a summary of research on autonomy-supportive teaching, Reeve (2002) describes the AS teacher as asking for student wants, responding to the students’ questions and acknowledging the students perspective. These three features all involve attaining information about the student and the student perspective. Using a student-focused direction in dialogue with content-supportive style creates the necessary conditions under which the student is encouraged to actively participate in the dialogue. This compares to a consensus-seeking style where the intention is similar, but the conditions create a quite limited frame for the student to construct own content, in turn giving the teacher little in ways of information.

Without the prerequisites of a student-focused direction and content support the dialogue will not any longer inherently support student autonomy, but rather be dependent on student’s prior motivation and interest. So while the attention to the direction and content support in dialogue might not prove to be important in every case, it’s a way for teachers to make certain that they through dialogue support student autonomy rather than assuming that it is there to begin with.

Finally, the results of this study suggests that the mere provision of choice and the possibility for students to work in their own way, as it is depicted in previous research (Reeve, 2002: Reeve & Jang, 2006), can be further complicated. While the positive effect of acting autonomously, being the source of one’s behavior rather than reacting on the social environment (Ryan & Deci, 2002), is supported by these results, unsupported choice had detrimental effects on self-determined behavior. One way to interpret the results is that if a student feels unable to act upon the world, perceiving an external locus of causality, being given the freedom to choose for himself might be perceived as controlling. This can explain why observed students were unruly when having too much time, too much space, and too little structure. With the teacher being preoccupied with some administrative task, or taking care of the most disturbing students the vast majority was left to their own device. This finding suggests that there is a difference between personal freedom, and practical freedom, which in turn creates what Schwartz (2005) describes as the paradox of choice. Choice can be limiting when it exceeds the available resources needed to deal with it. What these results seem to point to is that while practical choice (e.g. which assignment to work on and when as a part of how the learning activity is managed) does not per se increase self-determination, choice that has some personal value does. Hence, the use of student focused and content supportive interpersonal styles are important tools in order to facilitate student awareness about what they actually want and why – a prerequisite for any choice to become of personal value.
6. Discussion

The central objective of the present study was to investigate the relation between teacher motivational behavior and student behavior. SDT (Ryan & Deci, 2002) maintain that in order for students to thrive personally and academically their need for autonomy must be supported. One way for teachers to support student autonomy is by using an autonomy-supportive motivational style (Reeve, 2002: Reeve & Jang, 2006). The results of this study is consistent with prior research on SDT (Reeve, 2002, Niermiec and Ryan, 2009) but also expands on the theory, emphasizing that autonomy is a multidimensional concept and should not be confused with simply assuming a laissez fair posture in the teacher-student relationship. Providing choice without the proper support might show to have a negative effect on self-determination. It can also function as an effective tool for masking the problem, making it a question about “responsibility”, where motivation becomes an individual, rather than contextual, problem. The result of this study suggests that what is of utmost importance is that when having an educational intention, for example to promote responsibility, the conditions must supportive of it for the students to be able to realize it. The tension between intentions of teachers and the actual means to realize it could prove to be an important area for further research into SDT.

6.1 A theoretical model of classroom management

One of the problems this study deals with is how teachers are to facilitate student motivation while still realizing the goals of education. In relation to this problem and the third research question a theoretical model was developed as to describe how autonomy can be supported in the educational context. The model describes how teachers when changing the conditions that underpin how they teach can enhance self-determined forms of extrinsic motivation as well as intrinsic motivation. This is achieved thru supporting the student’s voice and choice in the classroom using student-focused direction in dialogue, supporting students to create their own content (i.e. solutions, answers, meaning etc.) and supporting their ability to choose for themselves. The model puts focus not on the manifestation – how one teaches using individual assignments or lecturing in front of class, but rather how the conditions influence the student psychological processes: the mechanics of the manifestation.

As described in previous sections different ways of structuring learning activities relates to different learning conditions, these conditions in turn creating possibility for subsequent student behavior. The model depicts four classroom conditions. The consequence of each
condition is determined in two dimensions Y: activity (high/low) defined as time on task and X: possibility for self-determination (high/low), where low self-determination equals external regulation, and high as enabling integrated and intrinsic forms of motivation. These different aspects are descriptively arranged in a four-field matrix (see Figure 4).

![Figure 4: Conditions of Classroom Management](image)

The teacher-centered (TC) condition entails the teacher setting the agenda, holding the learning material and using directives and commands to ensure that students pay attention. While the teacher might not be perceived as explicitly controlling, the behavioral and vocal frame is, limiting the students to behaviors that fall within the activities narrow boundaries. The communicative practice involved is controlling, leaving little room for consensus-seeking or student-focused practices.

In contrast, the task-centered (TAC) condition requires the student to be active, but because the purpose is to get the task done little room is created for choice or the students’ voice. Working task centered entails providing a rationale (a reason for doing the task) but does not necessarily mean it is provided in an autonomy supportive way (Reeve et al., 2002). When relating the task-centered conditions to the self-determination continuum (see Figure 2) it does enable identification with the task, especially compared to teacher-centered activities. The identification can be assumed to be relative: the activity being dependent on student interest and personal goals, rather than being inherently autonomy-supportive.

Self-centered (SEC) conditions entails choice but activity is largely dependent on students own prior motivation and interests because of the relative absence of external regulation. When students are working independently they can choose, and every behavior is in principle voluntary. However, without the support of the teacher the quality of choices made vary and affect activity negatively for those students who do not have well developed
self-regulation. Under these conditions self-determination is assumed to be supported, but what behavior is actually self-determined depends on student prior motivation. A student is just as likely to play with the computer as to work with it. For example, if a student who generally perceives an external locus of causality receives choice, it is assumed that the choice alone won’t positively affect autonomy, because the student has not developed any self-regulation to handle the choice.

The student centered (SC) condition entails a shift in control, from teacher to student. Teacher maintain control, but on an abstract level while students gain control over the manifestation. The SC condition is assumed to produce high activity due to the teachers taking a supportive rather than controlling or absent role. The support entails creating room for the students own will, and reflection promoting self-awareness, instead of turning the students attention onto external demands, in turn creating a greater degree of self-regulation through the process of internalization (Ryan & Deci, 2002). This is done through student focused communication, and letting the students develop the communicational content rather than serving it to them. This is comparable to working using student interests, rather than telling students what is interesting (Reeve, 2002). While TC conditions are dichotomous in their relation to SC conditions, the manifestations can practically be perceived as similar. For example, lecturing in front of a class was observed to promote teacher centered conditions rather than student centered. At the same time, other lectures were observed as to enable a student-centered condition. This was realized when the teacher lecturing in dialogue directed attention back at the students themselves, rather than on an external object. Using open questions, the teacher let the students develop their own content, instead of being responsive to the teachers.

6.2 Quality of research

6.2.1 Credibility

The quality of the qualitative endeavor is first and foremost a matter of credibility, one of four constructs to determine quality of qualitative research put forth by Lincoln & Gruba (1985). This criterion states that the research must be done in such a way that the phenomenon that was studied was so in an accurate way. Accurate, meaning measured with such a depth that it is a valid account of it. Observation can be argued to be a very detailed scientific method to research any phenomenon due to the relative lack of data reduction.
6.2.2 Transferability
The transferability or ability to generalize findings of this study to another setting, in quantitative research called *external* validity (Shaughnessy, Zechmeister & Zechmeister, 2009) can be asserted by the strength of the connection between previous research on SDT, autonomy-support, and its concepts. The findings of this study is related to previous transferable findings, which are in turn related to a theory which has shown strong ability to generalize of different situations, context and cultures (see Reeve, 2002).

6.2.3 Dependability
Reliability is a measure of how reliably the instruments used in a study were in terms of measuring what was intended. If one wants to measure length, a ruler would have high reliability but using a thread would have low. But what if the phenomenon that we study is not as constant as length: for example behavior. The idea of reliability stems from a view of the world as more or less static. From a qualitative perspective the social world is a constant in movement (Marshall & Rossman, 1999), and therefore the idea of reliability is not directly transferable. An alternative measurement of quality of measurement is dependability. It refers to the researchers attempt to “account for the changing conditions in the phenomenon chosen for the study” (Marshall & Rossman, 1999. p. 194). While measurements in behavioral statistic are made at fix points (Aron, Aron, & Coups, 2006) an observational measurement is made over time and in the process of analysis the changing conditions are accounted for.

6.2.4 Confirmability
Confirmability refers to the degree to which the findings of this study can be confirmed, or validated, by other studies. This concept refers to the traditional idea of objectivity, and asks the question whether the study can be said to provide an objective account, objectively verified by other findings. The findings in this study is consistent with prior findings described by Reeve (2002) in that the roles of listening; being responsive and providing choice is important concepts in motivating self-determined behavior.

6.2.5 Ecological validity
Ecological validity refers to the degree to which a study can be said to represent the phenomena that is studied. In the current study, ecological validity is assumed to be high due to the naturalistic nature of the observation.
7. References


