MOTIVATION TO STUDY MUSIC AMONG 5TH AND 6TH GRADE PUPILS IN FINLAND

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Abstract
This research focuses on 5th and 6th grade pupils' motivation to study music in Finnish elementary school. The research explored connections between self-efficacy, appreciation, and intrinsic motivation. The research also explored the significance of parental beliefs and appreciation in connection to pupil's motivation to study music. The data was collected from 403 respondents from 10 different schools around Finland.
The data was analysed using quantitative methods. The connections between the factors were explored using Spearman's Rank-Order Correlation test. Having music as a hobby in connection with motivation to study music was tested using cross tabulation and the x^2 test.
According to the results, pupils' motivation to study music is strongly connected to their self-efficacy beliefs and appreciation, which were classified as attainment value, utility value, and costs. There were differences between pupils depending on them having music as a hobby or not. In addition, there was a connection between parental beliefs and appreciation and a pupil's motivation to study music.
Key words: *music studying and learning motivation, self-efficacy beliefs, Expectation-Value Motivation Theory*

Background

Especially in art and skill subjects, motivation has an important role, because positive learning experiences can lead to self-directed music actions and learning situations and, in the best case, to taking music as a hobby. At school, we can only teach these subjects a limited amount because the number of lessons is low. The idea in arts and skills is to make the pupils motivated and interested in the subject so that they can deepen their knowledge and skills after starting a hobby. This article focuses on 5th and 6th graders' motivation to study music and the factors connected to this.

Teachers, parents, peers, and friends have a big impact on motivation. This has been widely explored, and intrinsic and extrinsic motivations have been separated (Peltonen & Ruohotie, 1992; Kantelinen, 1995). There is information about the impact of parents

(Tulamo, 1993; Jacobs & Eccles, 2000; Lehtinen & Kuusinen, 2001; Wigfield, Tonks & Eccles, 2004) and hobbies (Puurula, 1992; Eccles, O'Neil & Wigfield, 2003). In this research, I focus on 5th and 6th grade pupils because those under 10 years of age are not quite capable of distinguishing the concepts connected to this research (see Nicholls & Miller, 1984). This is important when a questionnaire is used to collect data.

Music in the Finnish Elementary School

In Finland, there is compulsory education (Perusopetuslaki, 1998). Elementary school consists of classes 1–9. The first six grades are taught by a class teacher who usually teaches all subjects. Sometimes art and skill subjects can be taught by one teacher for several classes; there is a little variation in practices between schools. The National Board of Education determines the aims and core contents of school subjects and thematic entities in basic education and the curriculum. The basis of the elementary school curriculum is determined by the Finnish National Board of Education, and this forms the starting point for school-specific curricula.

Music education aims at helping pupils find their own interest in music, encourages pupils to musical activities, offers media for musical expression, and supports pupils' comprehensive growth and development (POPS 2004, 232). The pupils should understand that music is bound in time and context, differs from time to time and in different cultures and societies, and has a different significance for different people. The basis for understanding and conceptualising music is built on significant experiences that are gained through listening and making music together. Music education offers tools for developing a musical identity, in a process that targets building an appreciative and curious approach to different types of music. Musical skills are developed through longlasting and repetitive practice. Making music together develops social skills, responsibility, constructive depth, and acceptance and appreciation of differences in skills and cultures. Music education applies the possibilities that technology and media offer (POPS 2004, 232).

Motivation

Motivation means a system that guides the regulation and directional factors of behaviour. Motivation is often used to refer to needs, desires, instincts and intrinsic impulses, rewards, and penalties. Motives tune and support the direction of the individual's behaviour. They can be goal-oriented, conscious, or subconscious (Peltonen & Ruohotie, 1992, 16).

Motivation is a quantity with direction and vitality. The starting point for a definition is the individual's overall situation and processes that produce action (Peltonen & Ruohotie 1992, 16). According to Peltonen and Ruohotie (1992, 16-17), motivation carries three characteristics: 1) vitality, 2) direction (goal-orientation), and 3) system-orientation (the forces that come from outside, increasing the intensity and direction of an individual's needs or making them give up an action plan and focus their endeavour in another direction).

Luopajärvi (1993, 142-143) has recapitulated the characteristics describing motivation:

1. ***Motivation is hypothetical***. The motivation of an individual cannot be observed directly, and it cannot be measured. Motivation is a conceptual scheme that targets the understanding of behaviour. Motives may occur in a hidden form, several motives may occur for similar or identical activities, similar motives may be represented by different behaviours, and cultural or personal differences may considerably change the manifestation of the motives.
2. ***Motivation includes several processes.*** Motivation is not directed only by an individual's intrinsic imbalance and extrinsic stimulation environment, but also by the perception of different situations, and selection and interpretation of the information available.
3. ***Motives are dynamic by nature.*** In all individuals, different needs and expectations occur continuously, which not only change, but are often also contradictory to each other.

Anttila and Juvonen (2002, 100) define motivation as a concept that refers to the reasons for an individual's goal-oriented behaviour: the psychological processes that affect the birth of goal-oriented behaviour. The motivation processes develop and metamorphose continuously (see also Peltonen & Ruohotie, 1992, 17; Luopajärvi, 1993). At any one moment, an individual does one thing and, after a while, their actions take another direction.

Anttila and Juvonen (2002, 100) add that, in general language, the type of student who is actively committed to studying and learning processes is called a motivated student. Peltonen and Ruohotie (1992, 17) separate attitude and motivation, defining attitude as a relatively permanent intrinsic and slowly changing reaction preparedness. Motivation is temporary and usually connected to one situation at a time. Attitude affects more the quality of an action, and motivation affects the vitality of the action. Changes in motivation do not require changes in attitude in the context (Peltonen & Ruohotie, 1992, 17). Peltonen and Ruohotie (1992, 17-18) separate general motivation, which can be seen as a synonym to attitude, and situational motivation, which means a dynamic motivation that changes from one situation to another and that is affected by an individual's intrinsic and extrinsic factors, and especially how the individual sees the personal significance of the task (Peltonen & Ruohotie, 1992, 17-18; Kantelinen, 1995, 43-44).

Research has shown that parents' support for a child's self-determination, the democracy of the relationships in the family, and parents' commitment and interest in relation to the child's school attendance are connected to the child's intrinsic motivation. On the other hand, parental control is connected to extrinsic motivation. Too tight control signals to the child that they are not trusted in their own abilities and in taking care of school tasks (Aunola, 2002, 117).

A teacher-centred classroom environment in which learning basic skills is underlined and differences in abilities are emphasised through, for example, rewards and public evaluation seems to be harmful to intrinsic motivation. Instead, in classes in which the teacher aims at supporting and developing the pupils' independence, the children are more motivated and trust their own abilities more than in a controlling teacher's class (Aunola, 2002, 118).

General Motivation for School and Favourite Subjects

From the characteristics point of view, motivation is seen as a general orientation to school attendance, and it is not analysed in subject areas (Murphy & Alexander, 2000; Malmberg & Little, 2002). Among the youngest schoolchildren, the motivation to attend school may be a more general interest in school as a whole (Harter, 1983; Jacobs et al., 2002). Another approach is a more subject-centred exploration of motivation (Murphy & Alexander, 2000). Eccles and colleagues (1993) and Wigfield and colleagues (1997) found that motivation for school may sharpen to subject-oriented motivation already in the early stages of school attendance. For example, maths-oriented pupils can be distinguished from reading-oriented pupils (Eccles et al., 1993; Wigfield et al., 1997).

Expectations, Values, and Motivation

Ford (1992) collected 32 different motivational theories together in a single table. Many of the theories have essential differences, but, basically, they all examine the same questions concerning a human being's turning towards an activity and guiding it (Lehtinen & Kuusinen, 2001, 213).

Actual expectancy-value theories have been definied since the 1960s e.g. Vroom, 1964; Atkinson, 1964; Ajzen & Fishbein, 1980; Rotter, 1982 (see Bandura, 1997, 125). They all share an attempt to explain the factors affecting motivation through some impulses. Expectancy-value theories simply explain that the more an indvidual believes that an action will lead to a certain objective, and the more they appreciate the achievement, the greater motivation the individual will have to perform the action (Bandura, 1997, 125).

Today, Wigfield and Eccles's (2000) Expectation-Value Motivation Theory has gained a central place in the field of motivation research. In addition, this research is based on their theory, and the questionnaire was built on its principles. According to the theory behind the pupil's task choices, there are expectations (their own beliefs and anticipation about managing the task) and values (the appreciation that the pupil connects to the activity or task).

Self-efficacy and Motivation

Bandura formed the concept of 'self-efficacy' (Bandura, 1993), but in Finnish there have been several other terms to describe the same concept, such as 'effectiveness beliefs' (Ruohotie, 1998) and 'spontaneous effectivity'. Bandura defines self-efficacy as an individual's own conception of their own abilities to organise and carry out different activities or performances.

Individuals gain positive self-efficacy in subjects in which they have success and in which their areas of strength are handled (e.g. Denissen, Zarret & Eccles, 2007). People who have strong self-efficacy in some area are motivated to work harder when they believe they can manage well and when they appreciate the task most (Bandura, 1993; Wigfield & Eccles, 2002). If an individual believes they are able to influence their own learning and believe they can survive well in it, they will also work persistently and with determination to reach the target (Pintrich & McKeachie, 2000, 36-37). Self-efficacy

strengthens not only motivation, but also the effectiveness of memory and cognitive processing (Bandura, 1993; Berry, 1999).

A belief in one's own ability affects the choices, endeavours, and amount of struggle to reach a target and tolerate adversity. The beliefs of self-efficacy also guide the self-regulation system and influence the way in which an individual observes and processes their performance and their products (Ruohotie et al., 1993, 27). Kääriäinen (1988, 16-19) has noticed that if an individual has an average self-image, they are often modest in estimating their own skills and abilities. Similarly, an individual with a negative self-image is socially passive and brands themselves incompetent (Kääriäinen, 1988). Repetitive experiences of failure in certain tasks gradually generate in the individual a belief that they cannot succeed in similar tasks. Respectively, success and positive learning experiences strengthen the beliefs of self-efficacy in the area (Lehtinen & Kuusinen, 2001, 226).

Hobbies are connected to self-efficacy. Eccles and colleagues found that elementary school pupils who played an instument had greater belief in their success in music lessons than those children who did not play any instrument or who had stopped music as a hobby (Eccles, O'Neil & Wigfield, 2003). Upbringing and beliefs that come across through social interaction also have an impact on self-efficacy. The first experiences of self-efficacy are gained at home. As the child grows older and their social network widens, peer groups become more important in the development of self-efficacy, and siblings also have an important role (Bandura, 1997, 169-174). Tulamo (1993, 125) found that home also reflects the parents' attitude to music studies, as evaluated by the child. At school, it is also important how the child experiences the music teacher's attitude to them (Tulamo, 1993, 125). Parental beliefs in and anticipation of their child's school performance predict the child's beliefs in their ability and their self-efficacy even more than the child's real skill and ability level (Aunola, 2002, 115). Parents who believe in their children's skills and abilities have children whose attitudes to school are positive, and the children also see themselves in a positive light. Parental uncertainty about their children's skills and abilities shows in the children's more negative attitudes towards their own abilities and performance (Aunola, 2002, 115-116). According to Grolnick, Ryan, and Deci (1991), the parents' participation in their child's schoolwork and support for their autonomy improve the child's school performance and increase the child's belief in their own skills and abilities.

School has an important effect on children's beliefs in their competence. It is a place where children's cognitive skills develop and are being developed. In addition, school offers a large number of different tests that evaluate, measure, and compare abilities and skills. At the same time as children develop their cognitive skills, they also form a conception about their own academic abilities and competence (Bandura, 1997, 174).

A teacher's positive expectations of a certain pupil's possibilities are also mirrored in the teacher's way of instructing them in the classroom. This can be seen in more positive feedback, giving thanks, and encouragement. The teacher's belief in certain pupils also seems, according to research, to predict changes in the pupils' performance and motivation. On the other hand, it has been found that a pupil's own motivation, skills, and belief in their abilities also have an effect on the teacher's beliefs (Aunola, 2002, 117).

According to Wigfield and Eccles's (2000) expectancy-value theory, motivation at school is dependent on the value given to different tasks and school subjects. Eccles and colleagues classified the value of a task in four parts: attainment value (importance for identity or self), intrinsic value (enjoyment or interest), utility value (usefulness or relevance), and cost (loss of time, overly high demand for effort, loss of valued alternatives, or negative psychological experiences such as stress).

Attainment value is based on how important the individual feels it is to succeed in the task. Intrinsic value is the amount of enjoyment gained from the task and how eagerly it is carried out. Utility value is dependent on how much carrying out the task offers to future plans, or how much it indirectly leads to reaching other targets (see also Locke & Latham, 1990). The costs consist of how much carrying out the task restricts participation in other activities, how hard the individual must struggle to complete the task, and what emotional costs the task requires.

Intrinsic value can be seen as part of intrinsic motivation. An intrinsically motivated pupil experiences the task itself as satisfactory and rewarding (Kantelinen, 1995, 42-43; Peltonen & Ruohotie, 1992, 18-21). Intrinsic value shows, for example, in playing a musical instrument as a hobby. A hobby has a strong impact on appreciation of the school subject (Puurula, 1992; Eccles, O'Neil & Wigfield, 2003). In art and skill subjects, having a hobby is clearly connected to appreciation of the subject at school (Puurula, 1992). Most hobbyists think that the subject to which their hobby belongs should be taught in more lessons at school (Puurula, 1992, 94).

An extrinsically motivated pupil carries out tasks for reasons that are outside the task (Kantelinen, 1995, 42-43; Peltonen & Ruohotie, 1992, 18-21). Utility value is one important factor encouraging motivation. According to Olkinuora and Lehtinen (1984; see also Peltonen & Ruohotie, 1992, 82), the psychological and logical meaningfulness of school work is based on how a pupil sees the school as serving their distant educational and professional targets. The research questions in this research are based on Eccles and Wigfield's Expectancy-value Theory, and the questionnaire was originally built by McPherson and O'Neill (2010).

Research Questions

1. *How motivated are 5th and 6th grade pupils in studying music? Are there differences between the genders?*

These questions mainly describe the pupils' intrinsic motivation and their appreciation, interest, and enjoyment in music studies. In addition, I also explore the differences between boys and girls.

2. *Does self-efficacy have a connection to 5th and 6th grade pupils' motivation in music?*

People with high self-efficacy in certain areas are motivated to work hardest when they believe that they will succeed well in the task (Bandura, 1993; Wigfield & Eccles, 2002).

If the individual believes that they are able to influence their own learning, and believe they will succeed in carrying out the task, they will also work persistently and with determination to reach the target (Pintrich & McKeachie, 2000, 36-37).

3. *Does appreciation have a connection to 5th and 6th grade pupils' motivation in music?*

   Subquestion 1) Does the motivation have a connection to the importance of succeeding well in the subject?

   Subquestion 2) Does the motivation have a connection to the usefulness of the subject for the pupil?

   Subquestion 3) Does the motivation have a connection to how much the pupils must work and struggle to succeed in the subject?

4. *Does having music as a hobby have a connection to the pupils' motivation to study music?*

5. *Do parental beliefs and appreciation have an impact on the children's motivation in music?*

   Subquestion 1) Does a pupil's motivation have a connection to their beliefs about the parental belief that they will succeed in music?

   Subquestion 2) Does a pupil's motivation have a connection to their beliefs about parental appreciation for music as a school subject?

Collecting the Data

The data is taken from international research led by McPherson, in which there were participants from the USA, Brazil, Hong Kong, South Korea, Israel, and Finland (McPherson & O'Neill, 2010).

The Finnish data was collected by the author in 2008-2010. There were altogether 1654 respondents to the questionnaire in Finland. Of all the respondents, there were 403 (24.4%) 5th and 6th graders. This research targets the group mentioned. There were 182 (45.2%) 5th graders and 221 (54.8%) 6th graders, so the whole sample consisted of 403 respondents. The respondents were from 10 different areas in Finland. The respondents consisted of 211 (52.4%) girls and 192 (47.6%) boys.

The Data Analysis

The questionnaire consisted mostly of 5-step Likert-scale questions. The data was analysed using non-parametric measures because it was not normally distributed. Normal distribution was tested using all sum factors. Because the data was bigger than 50 respondents (N=403), the normal distribution was measured using the Komogorov-Smirnov test. The result was that the statistical significance was <0.001 concerning every sum factor. The risk of turning down the basic assumption of the data being normally distributed was 0.1%.

This research explores intrinsic motivation and especially its connection to the factors explored. An intrinsically motivated pupil is interested mainly in the task under study, and they experience the task as satisfactory and rewarding (Peltonen & Ruohotie, 1992, 18–21; Kantelinen, 1995, 42–43). The indicator of motivation was, in this research, the

sum factor of intrinsic value, which consisted of three complementary questions. These questions measured how much the pupils liked learning music and studying it, how interested they were in music at school, and how interested they were in music outside the school.

Results

1. *How motivated are 5th and 6th grade pupils in studying music? Are there differences between the genders?*

The pupils were moderately intrinsically motivated in learning music (they liked studying music and saw it as interesting). The average of the intrinsic motivation sum factor was 3.75 on a Likert scale, where 1 = not at all interested and 5 = really interested. Girls liked music and saw music as more interesting than boys did. The girls' average intrinsic value sum factor was 4.1, and the boys' average was 3.4.

The connection between intrinsic value and gender was tested using Mann-Whitney's U-test. The mean rank value for the girls is 238.31, which is bigger than the value for the boys (156.58), which means that the girls have estimated, on average, that they like music and are interested in it more than the boys are. Mann-Whitney's U (11638.5) is statistically remarkably significant ($p < .001$).

2. *Does self-efficacy have a connection to 5th and 6th graders' motivation to study music?*

The linear connection between intrinsic value and self-efficacy was explored using Spearman's Rank-Order correlation test. There was found to be a statistically largely significant connection ($r=.71$, $p<.001$).

The connection between the factors can also be explored separately for the genders. According to Spearman's Rank-Order correlation test, the connection was relatively strong and statistically largely significant among both boys and girls. The boys had a stronger connection ($r=.75$, $p<.001$) than the girls ($r=.65$, $p<.001$).

Table 1. The connection between self-efficacy and intrinsic value according to gender. Spearman's Rank-Order Correlation test. N=number of respondents, r_2=Spearman's Rank-Order Correlation coefficient, p=statistical significance

GENDER	N	R_2	P
Boy	180	0.75	< 0.001
Girl	203	0.65	< 0.001

3. *Does appreciation have a connection to 5th and 6th graders' motivation to study music?*

This research question includes three subquestions, which can offer an answer to the main question through comparison. Every subquestion was tested using Spearman's Rank-Order Correlation test.

Subquestion 1) Does the motivation have a connection to the importance of succeeding well in the subject?

According to the correlation test, we can say that intrinsic value and the level on which the pupil feels it is important to succeed in the subject have a remarkably high linear statistical significance level (r=.75, p<.001). In attainment value, there is no statistically significant difference between boys and girls (see Table 2). The strength of the connection is almost equal for boys (r=.75) and girls (r=.76).

Table 2. The connection between attainment value and intrinsic value according to gender. Spearman's Rank-Order Correlation test. N=number of respondents, r_2=Spearman's Rank-Order Correlation coefficient, p=statistical significance

Gender	N	r_2	p
Boy	187	0.75	< 0.001
Girl	206	0.76	< 0.001

Subquestion 2) Does the motivation have a connection to the usefulness of the subject for the pupil?

Utility value also has a strong correlation with motivation. The linear connection is statistically remarkably significant (r=.73, p<.001). There was only a small difference between boys and girls (see Table 3). Spearman's Rho value for the connection for the boys was .72, while the Rho value for the girls was .70. Both results were statisically significant (p<.001).

Table 3. The connection between utility value and attainment value according to gender. Spearman's Rank-Order Correlation test. N=number of respondents, r_2=Spearman's Rank-Order Correlation coefficient, p=statistical significance

Gender	N	r_2	p
Boy	180	0.72	< 0.001
Girl	203	0.70	< 0.001

Subquestion 3) Does the motivation have a connection to how much the pupils must work and struggle to succeed in the subject?

Intrinsic value and costs have a statistically remarkably negative connection (r=-.62, p<.001). Among the girls, the connection was stronger than among the boys (girls r=.59, boys r=.54).

Table 4. The connection between intrinsic value and costs according to gender. Spearman's Rank-Order Correlation test. N=number of respondents, r_2=Spearman's Rank-Order Correlation coefficient, p=statistical significance

Gender	N	r_2	p
Boy	185	-0.54	< 0.001
Girl	200	-0.59	< 0.001

4. *Does having music as a hobby have a connection to the pupils' motivation to study music?*

Music is considered to be a hobby if the pupil, at least once a week, sings in a choir, studies music privately or at a music school or elsewhere, plays a musical instrument, or plays together with friends or by themselves.

Motivation was measured using a sum factor of intrinsic value. Its average values were rounded, for this research question, into five classification groups. The first group (1= Not interested at all) contained pupils whose intrinsic value was between 1.00–1.49, the second group contained pupils whose intrinsic value was between 1.5–2.49, and so on.

The results were then cross-tabulated and the connection was measured using the x^2 goodness of fit test. The results show that there are statistically significant differences between the motivation of those pupils who have music as a hobby and the motivation of those who do not have music as a hobby [x^2=16.3, df=4, p(.003)<.01]. The strength of the connection (c=.205) is rather small, but still statistically significant (p<.01).

According to standardized residuals, the biggest differences in the group who had music as a hobby were found between answers with intrinsic values of 3 (Cannot estimate) and 5 (Very much interested). The intrinsic value of 3 (Cannot estimate) was over-represented, and the value of the standardized residual was 2.2 in the column. The column for very much interested had an under-represented number of answers, and the value of the standardized residual was -2.3.

Table 5. The interest in studying music among those who had music as a hobby and those who did not (N=371). Cross-tabulation with SPSS program. Column percentages: % with music as a hobby, yes or no

		How interested the pupil was in music studying?					
		1 Not interested at all	2	3	4	5 Very much interested	Total
Do you have music as a hobby?	No	4.3 %	14.9 %	42.6 %	27.7 %	10.6 %	100 %
	Yes	1.9 %	7.1 %	24.1 %	35.8 %	31.2 %	100 %

5. *Do parental beliefs and appreciation have an impact on the children's motivation to study music?*

The research question includes two subquestions, which answer the main question through comparison.

Subquestion 1) Does the pupil's motivation have a connection to their beliefs about the parental belief that they will succeed in music?

In the questionnaire, the respondents were asked to rank their school subjects (9 school subjects) according to whether they believed their parents thought they would be successful. There were nine school subjects altogether, and the data was coded so that if the pupil thought that their parents considered they were best at music, the value was set to 5. If the pupil thought that their parents considered that they were worst at music, the value was set to 1. The connection was measured through the correlation of this value and intrinsic value.

Between intrinsic value and parental beliefs, there was an average linear statistical connection (r=.59, p<.001). When the data was explored for boys and girls separately, there was no statistically significant difference (boys r=.54, girls r=.55).

Table 6. The connection between parental beliefs and intrinsic value according to gender. Spearman's Rank-Order Correlation test. N=number of respondents, r_2=Spearman's Rank-Order Correlation coefficient, p=statistical significance

Gender	N	r_2	p
Boy	172	0.54	< 0.001
Girl	202	0.55	< 0.001

Subquestion 2) Does the pupil's motivation have a connection to their beliefs about parental appreciation for music as a school subject?

In the questionnaire, pupils were asked to rank their school subjects according to what they believed their parents saw as their most important school subject (9 subjects). The answers were then coded so that if the pupil thought that their parents considered that music was the most important subject, the value was set to 5. If the pupil thought that their parents considered that music was the least important subject, the value was set to 1. The connection was then measured using correlation between this value and intrinsic value.

Parental appreciation and intrinsic value had a statistically weak significant connection (r=.32, p<.001). The connection for boys (r=.38) was a little stronger than for girls (r=.34).

Table 7. The connection between parental appreciation and intrinsic value according to gender. Spearman's Rank-Order Correlation test. N=number of respondents, r_2=Spearman's Rank-Order Correlation coefficient, p=statistical significance

Gender	N	r_2	p
Boy	173	0.38	< 0.001
Girl	199	0.34	< 0.001

In Table 8, I have collected a summary of the factors that have a connection to motivation for studying and learning music.

Table 8. Summary of factors connected to motivation for studying music. Spearman's Rank-Order Correlation test. N=number of respondents, r_2=Spearman's Rank-Order Correlation coefficient, p=statistical significance

Factors	N	r_2	p
Self-efficacy	383	0.71	< 0.001
Attainment value	393	0.75	< 0.001
Utility value	388	0.73	< 0.001
Costs	385	-0.62	< 0.001
Parental belief of succeeding	374	0.59	< 0.001
Parental appreciation of school subject	372	0.32	< 0.001

Reliability of the Research

The motivation to study music was explored using a questionnaire that was built based on previous research on motivation. It used the expectation-value-motivation theory by Wigfield and Eccles (2000). The data was analysed using statistical methods.

The reliability is good because of the extensive use of reference literature and the strong theoretical framework on which the questionnaire was built. The research literature and results support each other well. The results from statistical measurements were all statistically significant. One factor affecting this was the big sample size (N=403). The small differences in the sample between the tests were due to the fact that not all respondents replied to each and every question, and therefore they were dropped from the sum factor sample.

The reliability of research is directly commensurate to the reliability of the measure instrument. In this research, the concepts used and the research questions were

constructed on previous research and Eccles and Wigfield's theory. This means that the concepts used support the theory and cover the phenomenon widely.

Self-efficacy and appreciation were measured using sum factors, which were built from several questions approaching the phenomenon from different angles. The connection between music as a hobby and motivation to study music was explored using simple methods, and music as a hobby was defined during the research process.

Reliability was also considered when collecting the data. In quantitative research, it is important that the respondents understand the questions correctly. For this reason, 5th graders were the youngest target group, because they have good enough understanding about the used concepts (see Nicholls & Miller, 1984; Nicholls, 1990).

Reliability means that the results would be the same even if the questionnaire was used several times (Metsämuuronen, 2003, 86). Reliability can also be calculated statistically in quantitative analysis using Cronbach's alpha, which is one of the most used measures of reliability. Alpha measures internal consistency (Metsämuuronen, 2003, 439). In this research, sum factors were built from different questions measuring a certain area. For example, the sum factor of intrinsic value was built from three questions: 1) *How much do you like studying and learning?* 2) *How interesting do you find music at school?* and 3) *How interested are you in music outside the school?* Sum factors were also created for self-efficacy, attainment value, utility value, and costs. All sum factors were tested using the Crombach's alpha test, making sure that it was >.80 for every sum factor. This means that the internal consistency of the dimensions can be seen as strong.

Summary and Discussion

Generally, pupils see music as a very interesting subject. The distribution in intrinsic value was clearly negatively curved, and the most frequent answers were in the column *"Very much interested"* when we explored the sum factor of intrinsic value. The average for intrinsic value was 3.75. Girls were clearly more often *"very much interested"* in studying music (average 4.1) than boys, who showed a lower interest (average 3.4).

The differences between genders have been explored previously. In Palviainen's research (2008), 6th and 7th grade girls appreciated music more than boys. Similar results were obtained by Wigfield and his research group (1997, 466-467). Similarly, the results show that appreciation has a connection to a pupil's areas of interest.

There was a strong statistically significant connection between self-efficacy and intrinsic value in motivation to study music among 5th and 6th graders. This supports Wigfield and Eccles' theory, which claims that motivation to study is connected to task-oriented self-efficacy. The stronger a pupil's belief is that they can succeed well in a task, the more interested the pupil is in studying it. Although this research does not demonstrate a causal relationship, there are strong signs for this in previous research (e.g. Bandura, 1993; Wigfield & Eccles, 2002).

Boys have a stronger connection between self-efficacy and motivation to study than girls. For girls, self-efficacy is not as important to motivation as it is for boys. Boys must believe more strongly that they will succeed well in a task to gain motivation. In practice, a teacher should offer pupils tasks that they believe they are able to cope with.

When choosing exercises for music lessons, these should be a little too easy rather than too challenging. If overly difficult exercises are practised for too long in music lessons, there is a danger of killing interest in music entirely as a school subject. This does not take much, particularly when it concerns exercises in playing a musical instrument. It is necessary to start with exercises that every pupil can manage. That raises the feeling that they are able to play the instrument, and interest in the future can be even higher because of the positive self-efficacy.

Appreciation also has a connection to motivation, exactly as Eccles and Wigfield's theory suggests. Interest and attainment value, meaning how important success is to an individual in a task, have a rather strong statistically significant linear connection. There were no differences between the genders. Of all the factors measured in connection to intrinsic value, attainment value had the highest correlation to motivation. This means that pupils' experience of the importance of succeeding well in a subject affects motivation the most. Attainment value was measured using the following questions: *How important is it for you to study music? How important is it for you to succeed well in music? How important is it for you to get good marks in music?*

According to Aunola (2002), the teacher can signal to the pupil, through actions and attitudes, their own targets and appreciation, as well as their attitude to success and learning. Research has shown that a teacher's general beliefs and anticipation with regard to an individual pupil guide their actions in the school classroom, and have an impact on the pupil's motivation and performance (Aunola, 2002, 117). It is important that the teacher shows appreciation for studying and transfers this feeling to the pupils. This research result mirrors the way in which, if a pupil starts to appreciate music and see it as valuable, their motivation also grows. The correlation measurement also showed a rather strong connection between utility value and motivation. This goes the way in which the theory predicted. Utility value highlights the usefulness of music in everyday life, and how useful it is seen to be compared to other activities, life, and hobbies, and how useful it is seen to be later, when moving to working life. Although music is one of the art and skill subjects, there is a rather strong connection between interest and usefulness. This means that to gain high motivation in arts and skills, it is important to see their usefulness as part of a pupil's life outside school. This usefulness may be different to that of core subjects such as maths and science, but it is an important result to find that it is important to see the usefulness of the subject in music, too.

According to Eccles and Wigfield (2000), intrinsic value and costs have a statistically significant negative connection. The sum factor of costs in this research included questions about the difficulty of learning music, how difficult it was compared to other subjects, and how much the pupils had to struggle to learn music at school, as well as how much they had to struggle to get good marks in music. A negative connection means that the more music caused costs, the less a pupil was interested in learning music, and vice versa. The connection among girls was a little stronger than among boys. This is an interesting discovery, because in an earlier result, namely the connection between self-efficacy and intrinsic value, the connection was stronger among boys. In practice, this means that boys should have higher self-efficacy than girls to maintain their motivation for a task. If the task is felt to be difficult or the struggle becomes too great and too tiring, girls lose their interest in music faster than boys. This means that boys work more tenaciously in music in spite of the costs, but they always need to maintain the belief that they can carry out their tasks successfully. Girls do not

need that strong belief that they will succeed in music when they start to study, but if the costs grow too high, girls lose interest in the subject faster than boys. In this research, costs had the weakest connection to motivation compared to the other elements.

Having music as a hobby was connected to an interest in studying music. Having music as a hobby was defined as the pupil, at least once a week, singing in a choir, studying music privately at a music school or adult education center, or playing a musical instrument alone or with friends. The pupils who had music as a hobby were more interested in learning music than those who did not have such a hobby. In the group without music as a hobby, there were fewer pupils very much interested in learning music, but also more pupils who could not say if they were interested in music or not. This result confirms the idea that having music as a hobby strengthens a pupil's identity and opinions about music in general.

Music activities at school strengthen a pupil's musical identity, which is also a target in the curriculum. According to previous research, having music as a hobby strengthens appreciation of the subject (Puurula, 1992; Eccles, O'Neil & Wigfield, 2003).

If a pupil thinks that their parents believe in their success in music, this strengthens their motivation in music studies. This supports the background theory, which suggests that parental appreciation also increases the motivation of the pupil (Tulamo, 1993; Bandura, 1997; Lehtinen & Kuusinen, 2001). In previous research, it is shown that parential beliefs in success predict a child's own self-efficacy more than their real level of skills (Aunola, 2002, 115). In this research, self-efficacy had a connection to motivation. Boys pay more attention than girls to their parents' appreciation when they select their own areas of interest.

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