

Pupils' attitudes towards art teaching in primary school: an evaluation tool

Abstract

Pupils' attitudes are influencing both learning and teaching processes and are affecting the way pupils will engage with art as adults. This paper introduces an attitude scale, *ASAES* (Attitude Scale for Art Experienced in School), which measures factors that may influence the formation of pupils' attitudes, from pupils' perceived abilities in art to teachers' art specialisation. This newly developed instrument is a Likert- scale comprising four subscales: *enjoyment*, *confidence*, *usefulness*, and *support needed*. The *support needed* dimension is an essential component in the learning process because it represents the pupil's perception of teacher's feedback on how well they are coping with the task. The ASAES was administered to 420 primary school pupils in Cyprus and its psychometric properties are evaluated by Confirmatory Factor analysis.

Key words: student evaluation, school-based evaluation, art education, attitude scale, evaluation tool, perceived abilities

Introduction

An important element in the process of facilitating and supporting pupils' learning is our willingness to really listen to pupils and understand them; particularly in the context of art education (Wexler, 2004). By 'understanding pupils' we do not simply refer to acquiring knowledge about their developmental level, abilities and learning strategies but

more importantly to responding to their motivations, prior conceptions and attitudes towards the subject they are learning (Cochran, DeRuiter, and King, 1993).

This paper focuses on pupils' attitudes towards art experienced in school. Attitudes play a significant role in influencing and guiding action, emotions and knowledge processes (Petty and Cacioppo, 1986) and thus in shaping learning and teaching processes. Motivation to learn is higher when overall attitudes towards a particular part of the curriculum are positive (West, 1997). In a fast changing world fostering positive attitudes is the best way to ensure that individuals will pursue learning or will choose a particular subject for further study later on (Chraska, 2000, Reid and Skryabina, 2002). Teachers that aim at understanding what pupils 'think' about art are more skilful in organising lesson plans and art activities that aim to challenge and expand their pupils' attitudes further and at the same time are more able to understand how and to what extent they influence their pupils (Jeffers, 1997).

Sixth graders (11 to 12 year olds), the focus group of this study, are of special interest in this regard and evaluating and responding to their attitudes towards art is crucial because at this age children start to doubt their abilities in art, they become less confident in their art making (Lowenfeld and Brittain, 1987) and need special support from their teachers to continue to be involved with art and art making. In particular eleven to twelve year olds show greater awareness of realism, exhibit interest in details, and are more self-conscious about their work and more aware of their shortcomings in art. Therefore, failure to support pupils at this crucial stage can lead to low perceptions of their abilities in art with

immediate and potentially life-long effects on how they perceive, enjoy and value art. It is common to observe pupils who say ‘I can’t do it’ to be indifferent during art lessons and avoid making art because of fear of failure. On the other hand promoting positive attitudes towards art is likely to enable pupils to engage meaningfully with art in school and allow them to express themselves through this medium. Assessing pupils’ attitudes at this age (which is the top grade) offers an indirect evaluation of the overall effects of art education at the primary school level. This study focuses in particular on pupils’ attitudes towards art as taught at the top grade of primary school in Cyprus.

Literature in the field of pupils’ attitudes towards art is very limited. There are theoretical models about art teaching emphasising the central role of learners (e.g., Chapman, 1978, Gentle, 1990, Houser, 1991, Stankiewicz, 2000) and good knowledge of pupils’ abilities is considered necessary for a teacher’s effective teaching, but it would appear that pupils’ attitudes are not considered part of this knowledge, unlike other important factors (e.g., children’s artistic development). It is this gap in the literature that the present paper aims to respond to by presenting the development of an attitude scale for evaluating pupils’ attitudes towards art experienced in school, the *ASAES* (Attitude Scale for Art Experienced in School).

Method

The *ASAES* was constructed, refined and administrated in primary schools in the district of Nicosia, Cyprus. The scale was developed over three studies. The first explored

concepts to be measured, the second constructed the items which comprised the scale and the third tested and validated it. These three studies are presented next.

Study 1

Participants: the sample of study 1 included seventy-three sixth graders, 39 boys and 34 girls (mean age 11.7 years).

Instrument: An exploratory questionnaire was given to the participants in order to identify the key dimensions of the concept ‘attitudes towards art experienced in school’. The exploratory questionnaire included 38 items with a five-point response scale ranging from ‘disagree a lot’ to ‘agree a lot’ and an open-ended question. The questionnaire addressed a variety of issues about the nature and value of art, personal relation with the art subject (enjoyment and confidence), teaching and learning processes, different types of lessons (which corresponded to four orientations for art teaching referred by Efland, 1979, as expressive, mimetic, pragmatic and objective), different types of discussion, perceptions of value, perceptions of support provided by teachers and parents, and perceptions of ‘good’ artworks.

Procedure: Based on head-teachers’ descriptions about their school intake in terms of familial socio-economic background and of the school’s catchment area, three classes were chosen from three schools which reflected the full range of the social strata. The questionnaire was administered to pupils by one of the authors after receiving permission from headteachers and parents.

Results: Items that received high uncertain responses or showed low discriminative power were excluded from subsequent analysis. The remaining items reflected four key dimensions connected with art production. Three out of the four key dimensions identified in the present study, namely *enjoyment*, *confidence*, and *usefulness* were also identified by other researchers when exploring pupils' attitudes towards school or towards various school subjects (Jones, 1988, Todman and Dick, 1993, Blake, 1994, Keys et al, 1995, West et al, 1997).

A fourth dimension identified by the results of the exploratory questionnaire was defined as *support needed*. This we believe is an essential dimension in the learning process because it represents the teacher's feedback to the pupil about how well they are coping with the task and one that has been overlooked. In general when looking for factors that may explain pupils' attitudes towards schooling or subjects or aesthetic preferences, researchers are more concerned with the role of pupils' characteristics (age/developmental stage and gender) and less with the role teachers' feedback play in this process. Only a few studies explore the relationship of pupils' attitudes and teachers' attitudes or teachers' specialisation (Todman and Dick, 1993, Jeffers, 1997).

Study 2

Participants: the sample of study 2 included two groups of pupils. The first group included 226 sixth graders (108 boys and 119 girls, mean age 11.4 years), and the second group was comprised of 133 pupils (80 boys and 53 girls, mean age 11.6 years).

Instruments and procedure: Two instruments were used in study 2. The first included incomplete statements that corresponded to the four key dimensions of the concept ‘attitudes towards art experienced in school’. The statements were: a) ‘the art subject is *enjoyable* because...’, b) ‘the art subject is *not* enjoyable because...’, c) ‘the art subject is *useful* because...’, d) ‘the art subject is *not* useful because...’, e) ‘the art subject is *easy* because...’, f) ‘the art subject is *difficult* because...’, g) ‘I *like* it when my art teacher...’, and h) ‘I *do not* like it when my art teacher...’. A pool of attitude statements was generated when pupils were asked to complete the above statements about the art subject or their teacher. More specifically, two sentences, out of the eight mentioned, were introduced to each class; one positively worded and its opposite. Half of the pupils of each class were asked to complete the positively worded sentence and half of them the negatively worded sentence.

Based on the data collected by the first instrument, a second instrument was formed. This comprised the pilot attitude scale with 41 items and six factual questions. There were ten items for each of the subscales of *enjoyment*, *confidence*, and *support needed*, and eleven for the *usefulness* subscale. There were twenty favourable items and twenty-one unfavourable items distributed throughout the instrument randomly. There were two five-point response scales ranging from ‘disagree a lot’ to ‘agree a lot’ and from ‘never’ to ‘always’. This instrument was given to the second group of pupils for initial testing. The same procedure as described in study 1 was followed to ensure variability in socio-economic backgrounds and permission from the headteachers and the parents was also sought.

Results: A big number of statements were gathered by the first group of pupils. These were grouped and the most frequently mentioned were put in the pilot attitude scale. Pupils' statements about their teachers' support seemed to be in agreement with what primary school pupils noted about their teachers in other studies (Blake, 1994, Cullingford, 1987). The results of the data gathered by the pilot scale were used for an initial testing of the scale. Using psychometric indices (item discrimination, item difficulty) as well as exploratory factor analysis, seven items were discarded. The final version of the scale comprised of 34 items.

Study 3

Participants

Four-hundred and twenty pupils from 17 six grade classes completed the ASAES; 201 boys and 219 girls (mean age 11.8). Six classes had *art specialist¹ teachers* (141 pupils), six classes had *enthusiastic non-specialists² teachers* (154 pupils) and five classes had *unenthusiastic non-specialists teachers³* (119 pupils). The schools were located in ten different areas of Nicosia. Pupils in each of the three groups came from various socio-economic backgrounds.

Instrument

The ASAES includes four Likert-type attitude subscales, *enjoyment*, *confidence*, *usefulness*, and *support needed*, with 34 items. There are two five-point response scales:

¹ Primary school teachers, who pursued their special interest in art by obtaining further qualifications abroad, such as MA in art and design education or BA in fine arts.

² Primary school teachers who were not art specialists, but showed enthusiasm and interest for art teaching

³ Primary school teachers who were not art specialists and were either disappointed or frustrated with art teaching or uninterested and apathetic towards art teaching. For more details about the types of teachers, see Pavlou (2004).

a) disagree a lot/ disagree/ I am not sure/ agree/ agree a lot and b) never/ rarely/ sometimes/ usually/ always. An effort is made to make the ASAES pupil friendly. So, the five-point response scale ranging from 'disagree a lot' to 'agree a lot' is illustrated with smiley faces ranging from 'very sad' to 'very happy' (Davies and Brember, 1994). Pupils are asked to colour the face that represents best their views. Pupils' responses are scored from 1 to 5. A total score for each subscale is derived by reversing the negative items' scoring (items that exhibit negative attitudes towards art education) and adding up the scores of all the items comprising the subscale. There is an equal number of positively and negatively worded items.

Enjoyment

The enjoyment subscale consists of nine items. These items explore whether pupils like/enjoy art or not, and reasons for these views. More specifically, three items explore directly pupils' feelings of enjoyment towards art in terms of like and dislike. Other items explore this indirectly, and this is one of the advantages of scales. These involve the notion of boredom (two items), and reasons for enjoying art, as stated by pupils in study 2 (two items are connected with opportunities for choices and one item is connected with relaxation).

Confidence

A set of eight items measure pupils' attitudes towards this subscale. These items explore the extent to which pupils are satisfied with their work, believe in their abilities in art and

explore reasons for these expressed attitudes towards their competence in art. The notions of ‘easy’ versus ‘hard’ are used to express pupils’ feelings of competence versus incompetence. Four items explore directly pupils’ beliefs in their abilities (whether they can respond to the tasks set by the teacher and how much satisfied they are with the results of their work). The others are connected with reasons for feeling competent /incompetent, such as handling materials, expressing what they want, doing careful and detailed work, which was perceived as signs of quality work by the pupils in study 1 and 2, and be able to concentrate.

Usefulness

The usefulness subscale consists of ten items. These items aim to find out whether pupils think that art is useful and important, and reasons for these attitudes. Two items look at pupils’ attitudes towards art in terms of importance, and there is one item that implies that art knowledge is important. Four items deal with reasons for considering art an important, useful subject to have in school. Three are connected with acquiring skills, ‘learning how’, and one refers to imagination. Lastly, three items explore whether pupils believe in art’s usefulness in daily life and in their future life.

Support needed

A set of seven items address pupils’ attitudes towards the support received by their teachers. Again there are a few items that directly explore pupils’ feelings about their teacher’s support and reasons for these, and others that explore these indirectly and may be called ‘long shots’. Three items directly investigate pupils’ perceptions about the

individual help and attention received. Three others look at reasons for liking their teacher. Lastly, one item may be called long shot because it indirectly investigate teachers' attitudes towards art, as a non-important subject and suggests that teachers may use the time allocated to art inappropriately and thus reduce the art opportunities offered to pupils. Yet this item was included because of what pupils said during study 2 and is very much their views on whether teachers value the subject which, we believe, will influence pupil's attitudes to art.

Procedure

The procedure for selecting the classes was a multi-stage cluster sampling. First potential schools were identified, which included the full range of schools in different socio-economic areas of the Nicosia district. Then thirteen schools (from the 48 listed in Nicosia) were randomly selected not only to reflect the above variety, but also to include teachers with different levels of art specialisation and 'similar' teaching experience (teaching experience is another potentially important factor, but in this study there was an effort to minimise its effects and thus be able to better explore the role of specialisation). If teachers fitted the above criteria, their classes were selected. This procedure was followed until the sample of the pupils would be around 10% of the top-primary grade population of the Nicosia district.

The scale was given to the pupils prior to their art lesson. Initially pupils were asked to complete the first page, which included five questions seeking factual information (e.g., age, gender). Then, they were told that the remaining of the questionnaire was about the

art subject and they were presented with the scale. Instructions were read loud and there was an explanation of the two five-point response scales.

The reliability and validity of the scale

Evidence of reliability

The reliability of the scale was examined first, for adequate reliability is a precondition to validity. The internal consistency measure, Cronbach's Alpha coefficient, was used to show whether the items of each subscale were correlated with each other. The alpha scores obtained for each subscale indicated a high level of internal consistency (Cronbach's alpha > .75 and inter-item correlation > .40 respectively, see table 1).

Table 1

Confirmatory factor analysis

The Amos 5 (Analysis of Moment Structures) software was used to perform a Confirmatory Factor Analysis (CFA) in order to test whether the four-factor structure of the attitude scale was appropriate. In a Confirmatory Factor Analysis an a priori model is fitted on to the data. The fit of the model is evaluated by means of a Chi-square statistical test. The null hypothesis underlying the test statistic is model fit, thus significance implies misfit of the model (Jöreskog and Sörbom, 1989). In evaluating our model we examined several fit indices. As Griffin (2005) suggests it is necessary to use at least four fit indices to build an overall understanding of fit to the measurement model; model fit is a multifaceted concept and no fit indices in isolation should be considered. Thus, we

examined five indices and the chi-square/degrees of freedom (χ^2/df) indicator. In particular we used the Tucker-Lewis Index (TLI; Tucker & Lewis, 1973), the Goodness-of-Fit Index (GFI; Raykov and Marcoulides, 2000) and the Comparative Fit Index (CFI; Bentler, 1990), in which values higher than 0.90 indicate a model with a good fit, and the Root Mean Square Error of Approximation (RMSEA; Hu and Betler, 1999), in which values less than 0.06 indicate a model with a good fit. In addition, a parsimonious index was used, the Parsimonious Normed-Fit Index (PNFI; Mulaik, James, Van Alstine, Bennet, Lind, & Stilwell, 1989) in which values above 0.80, usually indicate models with good fit. Caution should be taken in the interpretation of fit indices when a large pool of observed items is being analyzed, as in this case many parameter estimates will be constrained to zero when simple factor structure is hypothesized. As O'Connor, Colder and Hawk (2004) note, with a large number of constrains, fit indices (e.g., CFI) are more likely to reflect a poor fit, which can be attributed to a large number of trivial discrepancies between the observed and model implied covariance matrices. The χ^2/df , which adjusts for the sample size, is believed to be a better indicator of the model fit in this situation. Generally a χ^2/df less than 3.0 is considered good.

The results indicate that there was a rather acceptable good fit with the theoretical framework of the four-factor model. More specifically, the factor structure of the applicant sample fits the data well according to different goodness-of-fit indices ($\chi^2(521, N = 420) = 1252,618$; $\chi^2/\text{df} = 2.40$; CFI = 0.85; TLI = 0.84; GFI = 0.83; RMSEA = 0.058; PNFI = 0.72).

Discriminant validity

In order to investigate the *discriminant* validity of the subscales was measured by analysing scores of pupils who manifested a positive attitude towards school art by their active participation in outside school activities such as engaging in art activities at home. For this purpose the question: ‘Do you like drawing at home?’ (that was included in the section with the factual information) was used to divided pupils into four groups: a) yes, every day, b) yes, 2-3 times per week, c) yes, 2-3 times per month, and d) no. A One-Way ANOVA test was carried out and indicated a significant difference among these four groups of pupils for the four subscales: *enjoyment* ($F(2, 417) = 54.810; p < .001$), *confidence* ($F(2, 417) = 26.346; p < .001$), *usefulness* ($F(2, 417) = 36.370; p < .001$), and *support needed* ($F(2, 417) = 8.603; p < .001$). The Tukey post hoc procedure (Tukey HSD) was used for making all pairwise comparisons among the four groups of pupils. Pupils who were dedicated in art and drew daily at home received the highest scores in all subscales, whereas pupils who were indifferent towards art and never drew at home received the lowest scores in all subscales. The above indicates that the subscales had acceptable levels of discriminate validity because they were discriminating according to pupils’ active participation to outside school art activities.

Factors influencing pupils’ attitudes

Pupils’ responses on the ASAES were used to assess how different groups of pupils (based on their own characteristics and/or on their teachers’ level of specialisation and attitudes to art/art teaching) form their attitudes. But, before referring to the tests used to identify the effect of different variables it is important to talk about another important

role served by one of the subscales of the ASAES, that of identifying pupils' perceptions of their abilities.

Exploring the influence of pupils' ability on their attitudes towards art was not straightforward. Having no other indicators (objective assessments) for pupils' abilities than their responses to the attitude scale, we decided to use the results of the confidence subscale to identify pupils with low or high self-perceptions of competence. Research supports the belief that top-primary pupils can offer self-evaluations of academic competence that are congruent with other objective evaluations and therefore these should be seen as valid measures of performance affecting self-appraisals (both Assor and Connell, 1992, and Pintrich and Schunck, 2002, offer reviews of various studies on the issue of self-perceptions of competence and the accuracy of pupils' self-evaluations). At the same time, it is argued that even if self-perceptions of competence are not accurate, these are important in determining pupils' future achievement behaviour (Pintrich and Shunck, 2002). In light of these research findings, the confidence subscale was used to explore the role of perceived ability in shaping pupils' attitudes towards art. Based on pupils' scores on this subscale the population was divided into two groups: pupils with low confidence and pupils with high confidence. The median value (33) of the confidence subscale was used to separate these two groups. Pupils who received a score lower than 33 were characterised as *low confidence* pupils and pupils who received a score of 33 and more were characterised as *high confidence* pupils.

Two MANOVA tests were carried out in order to ascertain both the relative contribution of each variable to pupils' attitudes and their various combined 'effects'. First, a three-way *teachers' background*⁴ (3) x *gender* (2) x *scales* (4) ANOVA on attitude scores was carried out. This revealed main effects of *teachers' background* ($F(2, 417) = 11.02, p < .0001$) and *gender* ($F(1, 418) = 30.01, p < .0001$). Then a four-way ANOVA test was used: *teachers' background* (3) x *perceived ability* (2) x *gender* (2) x *scales* (3). In this test the confidence subscale is not used because the variable *perceived ability* was created by this subscale. The MANOVA test showed that there were significant effects of the variables of *gender* and *teachers' background*, already shown from the first MANOVA test, and an effect of the variable *perceived ability* ($F(1, 418) = 129.34, p < .0001$). The second MANOVA test also showed interactions between the variables a) *perceived ability* and *gender* ($F(1, 408) = 5.82, p < .02$), and b) *perceived ability* and *teachers' background* ($F(2, 408) = 3.26, p < .05$). Next, tests that explain the effects of the variables *teachers' background*, *gender*, *perceived ability* and the interactions of them with other variables are presented.

Teachers' background

Pupils taught by *art specialists* (named as the AS group) received higher mean scores on all four subscales, followed by pupils taught by *enthusiastic non-specialists* (named as the ENS group) and then by pupils taught by *unenthusiastic non-specialists* (named as the UNS group).

Table 2

⁴ The word 'background' is used as a shortcut to the phrase 'specialisation and attitudes to art/art teaching'.

A one-way ANOVA test (see table 3) revealed that there were significant differences ($p < .01$) for all subscales. The Tukey test revealed which differences were the significant ones. There was a significant difference among all three groups for the *support need* subscale, with AS group receiving the highest mean score and the UNS group receiving the lowest mean score. The AS and ENS group received similar scores for the *enjoyment* subscale, which were significantly higher than the UNS group. The AS group received significantly higher scores than the UNS group for the *confidence* and *usefulness* subscales, whereas the ENS group's scores fell in the middle of the other two groups' scores. Figure 1 illustrates all groups' responses (mean) on all four subscales.

Figure 1

This is an important result as it shows that a scale such as the ASAES can be used to evaluate teaching practices which discriminate according to the attitudes, experience and qualifications the teacher has. In effect this is a vote of confidence from the pupils and can therefore be considered as a very strong predictor of efficiency in teaching school art.

Gender

There was a main effect for gender and when the independent samples t-test was carried out it indicated that girls enjoyed art more ($t = -5.948$, $df = 347.684$, $p < 0.001$), were more confident ($t = -3.787$, $df = 392.694$, $p < .001$), and believed more in art's usefulness ($t = -5.625$, $df = 342.013$, $p < .001$) than boys. Girls also perceived their teachers to be more supportive ($t = -2.649$, $df = 404.348$, $p < .01$) than boys did.

Perceived ability

T-tests for independent samples were carried out for the subscales of *enjoyment*, *usefulness* and *support needed* in order to localise the effect of this constructed variable ‘perceived ability’. The tests revealed that *high confidence* pupils had significantly ($p < .001$) more positive attitudes towards art in all subscales (see table 3). *High confidence* pupils enjoyed art more, valued art activities more and believed more strongly that their teacher was supportive. The results suggest the concept of perceived ability appears to represent the key idea that most individuals will not be interested in and value a task, in this case art activities, when they believed that they are not good at it and thus they expect to fail.

Table 3

Perceived ability and gender

The statistical technique used for identifying the interaction between the variables *teachers’ background* and *gender* was the General Linear Model (GLM). The GLM test showed that there was a significant interaction between the variables *perceived ability* and *gender* for the subscales of *enjoyment* ($p < .01$) and *usefulness* ($p < .05$). Line graphs were used to study and clarify the patterns of the means of the groups. These showed that *high confidence* girls and *high confidence* boys had similar attitudes towards art, which were much more positive than *low confidence* girls and boys’ attitudes. But, *low confidence* girls enjoyed art and valued art significantly more than *low confidence* boys.

Perceived ability and teachers' background

The GLM test identified that there was an interaction of the variables *perceived ability* and *teachers' background* on the *enjoyment* ($p < .05$) and *usefulness* ($p < .01$) subscales. The pattern of the interactions was again explored with the use of line graphs. These showed that pupils with high confidence enjoyed and valued art, more than pupils with low confidence, despite their teachers' background. But it is important to note that the level of enjoyment and the belief in art's usefulness of pupils with low confidence was significantly influenced by their teachers' background. Pupils with low confidence and an art specialist teacher were significantly more likely to enjoy art and attribute value to it than the other pupils (see figure 2). It appears that art specialists were able to make a significant impact where it matters most, on *low confident* pupils.

Figure 2

Conclusion

This paper describes the development of an instrument, the ASAES, which can be used to assess pupils' attitudes towards art experienced in school. It shows that the instrument has acceptable levels of reliability and validity and therefore can be used to build a database for pupils' attitudes towards art experienced in school. The reliability of the four subscales is demonstrated at a high level on the basis of internal consistency as determined by Cronbach's alpha. The Confirmatory Factor Analysis indicates that there is a good fit of the model and that the four key dimensions identified are supported by the data.

The ASAES can be used as a tool to examine potential factors that shape pupils' attitudes. The importance of teachers' specialisation and the kind of teacher profile judged most successful according to pupils is further discussed in Pavlou (2004). The ASAES was also used in another study to further explore the role of 'perceived ability' in engaging with art tasks (Pavlou, 2006).

There are many possibilities on how the ASAES could be used to explore factors that may influence the formation of pupils' attitudes. Future research could investigate a) the role of pupils, in terms of age/grade, gender, perceived abilities, and/or socio-economic background, b) the role of parents, in terms of their attitudes to art, their education and/or cultural capital, c) the role of school, in terms of the general ethos of the school, and/or its facilities for art, etc., d) the role teachers' background, including academic experience, teaching experience, gender, attitudes to art teaching, etc. and e) the role of the society, in terms of applying the ASAES to different cultures and education systems and make comparative studies.

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Appendix: The four subscales of the ASAES

Sub-scales	Items
<i>Enjoyment</i>	1. I like art lessons. 2. I don't like drawing. 4. In an art lesson I often count the minutes till break-time. 7. I don't like art lessons because we cannot choose the theme or the materials. 9. Art lessons are enjoyable because you have choices about how to draw something or what to draw. 12. I am bored in art lessons. 14. For me art is relaxing. 22. I don't enjoy art because I get dirty. 25. I like drawing at school.
<i>Confidence</i>	6. I am often able to draw what the teacher wants me to do. 10. I like participating in art competitions. 13. I am good at doing careful, detailed work in art lessons. 16. I am usually satisfied with my pictures. 19. Art is hard because you need to be very careful and you need to pay attention to details. 21. I can easily express my ideas, thoughts and/or feelings in pictures. 24. I find art difficult because I really need to concentrate. 31. Art lessons are hard.
<i>Usefulness</i>	3. Art is useful for me because I learn how to use different materials. 5. The art subject is useful because when we grow up we can have it as a hobby. 8. What you learn in art lessons is not useful in everyday life. 11. Art won't be of much use to me when I grow up. 15. Art doesn't offer me any knowledge. 17. Knowing how to draw is not important. 18. Most of the art I do at school is a waste of time for me. 20. Art is useful because I can use my imagination 23. For me art is useful because I learn how to draw. 26. The subject of art is useful for me because I learn how to express my feelings.
<i>Support needed</i>	27. My teacher doesn't seem to have the time to give me individual attention. 28. During art lessons my teacher tries to make me work as well as I am able. 29. The teacher offers lots of suggestions and ideas. 30. The teacher helps me when I am having difficulties. 32. The art teacher listens carefully to what we have to say. 33. The teacher explains well the theme and the procedure. 34. The teacher uses some of the art's time to do another subject.

Table 1

Cronbach's alpha scores for each subscale

Subscales	Numbers of items	Cronbach's Alpha	Inter-item correlation
Enjoyment	9	.85	.57
Confidence	8	.76	.44
Usefulness	10	.83	.52
Support	7	.78	.49

Table 2

One-Way ANOVA test for groups of pupils based on teachers' background

	df	F	Sig.
Enjoyment	2 417	8.410	.000
Confidence	2 417	3.998	.019
Usefulness	2 417	4.315	.014
Support	2 417	21.585	.000

Table 3

t-tests results for low and high confidence pupils

	t	df	Sig. (2-tailed)
Enjoyment	-12.939	281.591	.000
Usefulness	-10.849	331.993	.000
Support	-4.884	371.289	.000

Figure 1

Pupils' responses grouped by their teachers' background

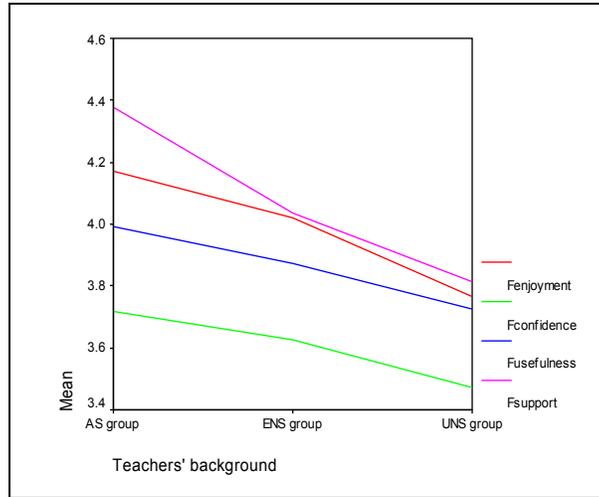


Figure 2

Teachers' background, perceived ability and scores on the *enjoyment* and *usefulness* subscales

