

# Effects of Art Education in Secondary Schools on Cultural Participation in Later Life

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## Abstract

This paper reports on the effects of art education in secondary schools on the cultural participation of Dutch students 10–20 years after leaving school. We draw our conclusion from a sample survey among 1034 students from 31 schools, half of whom took art as a subject of examination. Art examination subjects were more often chosen by students who were already active in the arts, come from culturally active families, and who more often chose languages and other humanities in their examination package. However, in spite of their affiliation with art prior to choosing an examination package, training in the arts during secondary school was found to add to their participation in cultural activities ten to twenty years later. The effects are restricted to the same art discipline as the art lessons attended, and apply to both receptive [enjoying art of artists] and productive [producing art] cultural participation.

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## Introduction

Research on 'receptive' cultural participation has amply shown that the higher educated are widely over-represented among visitors of museums and the performing arts [for an overview see Ganzeboom, 1989]. The same holds for 'productive' cultural participation, such as painting, playing instruments and performing as amateur artist, although the over representation here is less strong [Van Beek & Knulst, 1991]. Although formal education is known to be an important determinant of cultural participation, it is not clear to what extent training in the arts in schools contributes to this effect. Therefore, the central question of the project reported here [1] was about the long term effects of art education programmes in secondary schools on the participation in cultural activities: to what extent

do former secondary school students who were submitted to art training and passed an art examination in secondary school, participate more often in cultural activities later in life than their former schoolmates who did not enter an art examination? And if so, to what extent can these differences be attributed to the art examination programmes in secondary schools?

## Art education and art examinations in secondary schools in the Netherlands

During the 'seventies examinations in visual arts and music were introduced at all levels of Dutch secondary education. Instituting formal examinations in these fields was considered to be important to improve the structural position of art subjects in the curriculum. Nowadays

about 10% of all Dutch students in secondary education takes an examination in either the visual arts or music [2]. The programme leading up to the examination lasts one or two years, depending upon the school level. The programme requires about three to four hours a week and includes both 'productive' and 'receptive' activities. In the visual art lessons the examinee can specialise in one of three subdisciplines: drawing, handicrafts or textiles. In all, four parts are distinguished: knowledge, insight and skills to solve visual problems; skills in composition or design; competence in appreciating art works by students and others; and, knowledge and insight in visual art. Most of the time is spent on practical work such as design and composition, different techniques and creating work from observation and from fantasy. Lessons in art history and art analysis take on average only one hour a week. Excursions to museums and galleries are also made. The music lessons cover performing and composing, improvising, music theory, listening and appraising. Time is also spend on attending concerts.

In the Final Examination, the testing of productive skills is left to the discretion of the individual school. Visual art students are required to create objects around two or three themes. In music, technical and performing skills as well as listening skills are tested. The theoretical part, concerning art history and art analysis, respectively music theory and music history, is tested in nationally administered written examinations. The highest school level (VWO) also has a nation-wide practical examination.

In the third or fourth year of Dutch secondary education all students select their 'examination package', consisting of six or seven examination topics. Dutch and English are the only mandatory topics, music and visual arts are an option among many others. The selection of the examination topics is an important part in the school career of the students. Students and their parents make a decision, mostly in accordance with recommendations by the school, which result from consultations among the teachers.

When we asked former art students about their motives for choosing arts as part of their

examination package, they most often mentioned that they already liked music or visual arts, and that they already were very interested. Another frequently mentioned motive was that art was useful for future schooling and profession: some of these students wanted to go to specific art schooling. Teachers agreed with the students and mentioned for the most part the same motives.

A positive recommendation for choosing an art subject is given by the teachers, when the examinee enjoys the subject. Talent is not a major criterion for a positive recommendation. In the teachers' opinion a majority of students would be able to pass the examination. For example, a teacher of handicrafts told us:

*Anyone who insists on choosing an art subject can realize this choice. The average student should be allowed to choose handicraft. However, when I feel that it is a negative choice and the student has not worked for it, I will discourage it. Pleasure and devotion are important. They are not artists, as most of them will pass the exam.*

The minimal requirements for music programmes seem to be higher than for the visual arts. The number of examinees for music also is much smaller than for the visual arts. The ability to play an instrument and the skills for ensemble are probably an obstacle.

## Art education and later cultural participation

Former secondary school students who passed the examination in an art subject have received education in the arts – visual or musical – for a period of one or two years. They differ in that respect from their schoolmates who chose other subjects. According to the 'instruction model', it can be expected that former art students will show a higher cultural participation later in their lives because of this training. Students who have been trained in cultural skills can call upon these skills, when producing art or when participating in cultural events. As a consequence, they are more capable of participating in cultural activities, enjoying them more and

having a higher cultural participation at a later age than their schoolmates.

However, it may also be that differences in cultural participation in later life are due to 'selection', i.e. are caused by differences in the students' affiliation with cultural participation, prior to choosing an art subject. Because the choice of an art subject is optional, prior affiliation with art (and other characteristics that are associated with later arts participation) may have led to the selection of the art subject. Former art students themselves mentioned an interest in the arts as a motive for choosing the art subject. As a consequence, those students who chose an art subject, constitute a selective group, consisting of those who are interested in art, at least enough to attend the art lessons for another period, and in any case were probably more interested than those students who preferred other subjects. Therefore, a higher cultural participation of former art students may be related to their cultural interest beforehand, and not necessarily be caused by participation in the art education programme in secondary school [cf. Ganzeboom 1996].

Our crucial test between the instruction-model and the selection-model consists of comparing the cultural participation of former art students and their schoolmates, while taking into account their affiliation with art and other potentially confounding characteristics (like gender) that existed before they selected their topics of examination.

## Research design and data collection

The effects of art education on later cultural participation has been examined among 1034 former students from 31 secondary schools at four different levels, ranging from junior vocational training (LBO) to preparatory university education (VWO). They had graduated between 1975 and 1985 and were between 25 and 35 years of age at the time of the interview in 1994. Half of them, the art examination group, underwent an examination in one of two art subjects: visual arts or music. The other half of

them, the control group, did not graduate in the arts, but preferred other subjects.

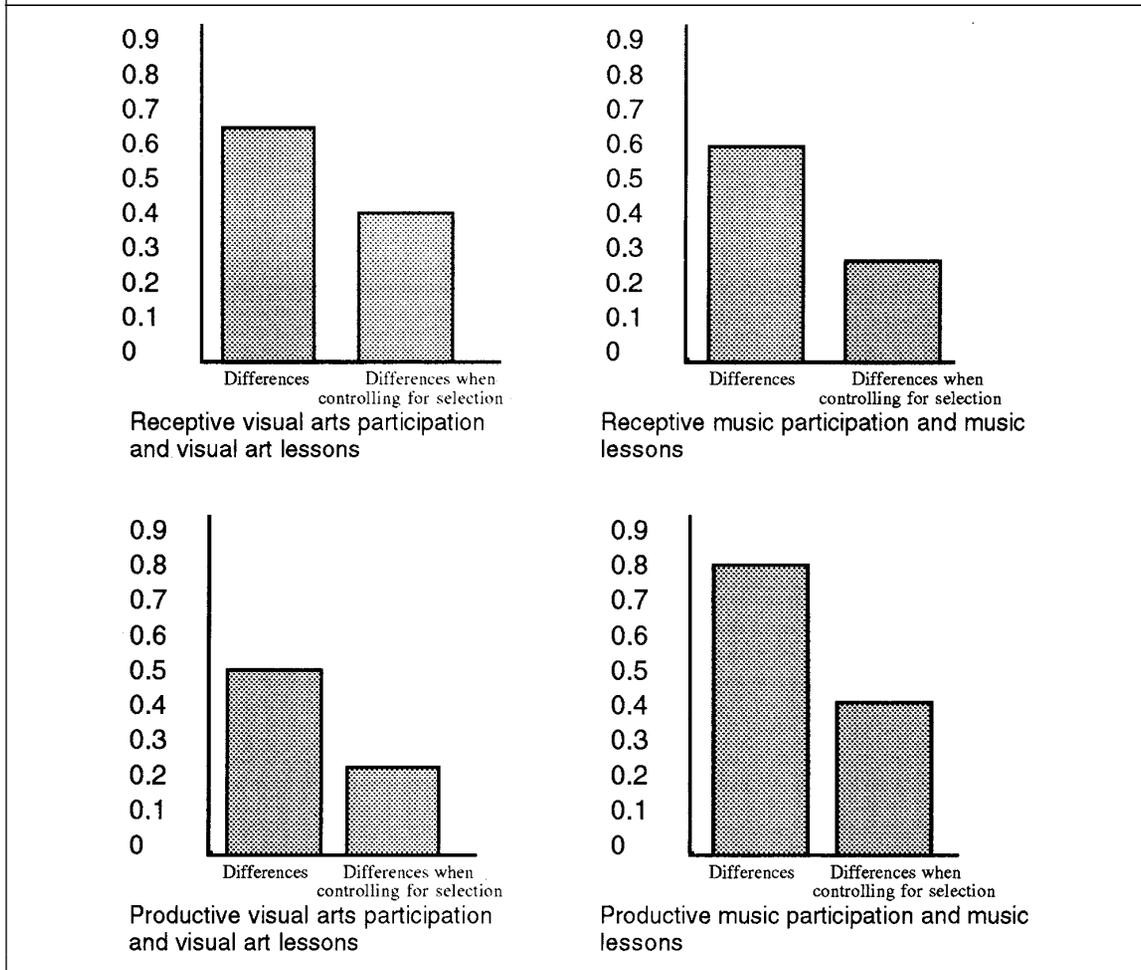
Data were collected in three different ways. Data on the examination programmes in visual arts and music and on the general cultural programmes of 31 schools were gathered through interviews with (former) art teachers. Then, from the archives of these schools 10 to 20 year old addresses from former secondary school students (in most cases the current addresses of their parents) were obtained. Subsequently the parents of the students were approached by telephone to obtain the current address of their child and to acquire information on the art socialisation in the parental family. Data on the current cultural participation of the former students were gathered through telephone interviews with subjects themselves. We were able to complete interviews with about 50% of the originally selected former students (and their parents). Although the emphasis is on quantitative data, qualitative data also were collected. Fifty students who had taken an art examination wrote a so-called 'learner report': a personal account about their learning experience. The results were used for interpretative and illustrative purposes.

## Analyses and results

Before comparing the two groups of former secondary students with respect to their later cultural participation, we examined whether the self-selection in the choice of the art subject actually did happen: did the former art students constitute a selective group of students who were culturally interested beforehand?

It turns out, that art students – before choosing the art subject (roughly at the age of 14) more often than their peers filled their leisure time with drawing, painting, or playing an instrument. The results also showed that an art subject was indeed most often chosen by those students who participated in cultural activities at the age of 14 by visiting art museums or attending classical concerts, and, by those who came from a culturally active family background. In visual arts subjects female students were over-represented.

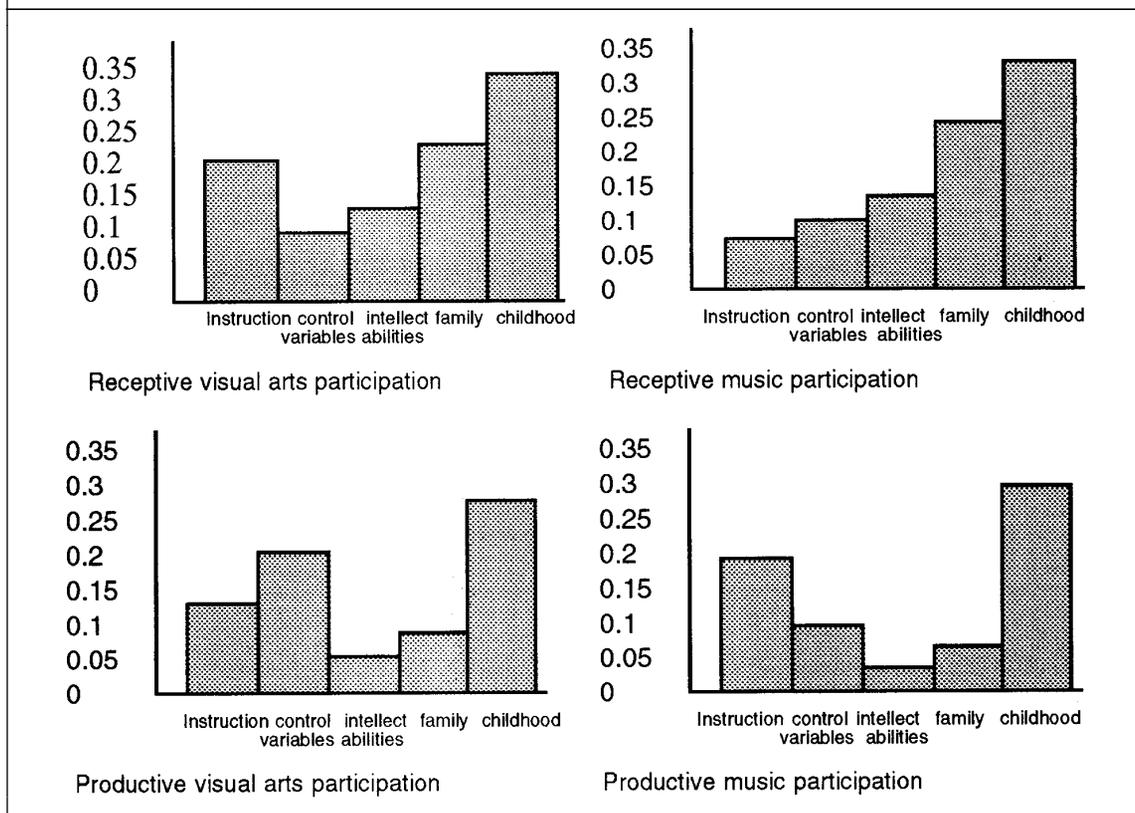
TABLE I Differences in current cultural participation between former secondary art students and their schoolmates, before (left bar) and after (right bar) controlling for selection. Based on Appendix



Besides specific cultural abilities – learned either during the art lessons or at home, general intellectual abilities also have to be taken into account. Previous research has amply shown that cultural activities are more enjoyable to those who are better equipped with general intellectual abilities [Ganzeboom 1989]. As a consequence we have to take into account differences in general intellectual abilities – as measured by high grades. If art students are on average found among the better students, this will lead to a spuriously high cultural participation in later life.

It is also conceivable that students often chose art subjects, because they expect this to be an easy way to graduate (some critiques claim that art subjects fit perfectly well in a so called 'fun examination package'). In that case an art subject would predominantly have been selected by students with lower grades. Our actual results indicated that there are few differences in grades between former visual art students and their schoolmates. However, music was chosen by students with higher grades.

A final indicator for prior affiliation with art could be the choice of other examination top-

TABLE II *Effects of art education (instruction) and four groups of variables on current cultural participation Based on Appendix*

ics, especially humanities like languages and history ['alpha' topics] as opposed to sciences like mathematics ['beta' topics]. The results show that the choice of both visual arts and music is frequently associated with the choice of other humanities.

In sum, art subjects were chosen by students who already had a strong affiliation with the arts. As a consequence, a higher cultural participation of former art students may be due to these prior characteristics instead of being caused by the art instruction. Therefore, in analysing the effects of the art education programmes, we have to take into account the fact that former art students constitute a selective group.

The effects of the art examination programme were evaluated by using multiple regression as

a statistical tool [see Appendix]. Our final model assesses differences in participation between former arts students and the control group, while controlling: (i) some general demographics (age, gender, household situation), (ii) intellectual abilities (final level of education attained, grades, choice of other examination topics), (iii) parental background (parent's education and parent's cultural activities), and (iv) cultural activities in childhood, at or before age 14.

We compared this model with the raw (uncontrolled) difference between the two groups. The differences are expressed in Z-scores (units of standard deviation).

In examining the effects, cultural participation is differentiated into visual arts and music, as well as into receptive (enjoying pro-

fessional art at home or by attending cultural events) and productive participation (producing amateur art). Table I shows the differences in cultural participation between art students and their schoolmates. Each picture contains the difference before and after controlling the selection indicators. The left bar indicates the actual differences in cultural participation between both groups of students; the right bar shows the differences when taking into account the fact that art students were more affiliated with art beforehand. For example, the raw difference in participation in receptive visual activities is .64 of a standard deviation and it declines to about 2/3 (.41 standard deviation) when the controls are taken into account.

All four modes of cultural participation show approximately the same tendency. The left bars (Table I) show that the actual differences between art students (within the same discipline) and their schoolmates are substantial. The right bars show that these raw differences decrease on average by about 50 percent when controlling for the fact that art students are a selected group. The fact that in all four pictures the right bar is considerably lower indicates that the higher cultural participation of art students is due to selection by about one half. However, the figure also shows that even after taking selection processes into account, considerable differences in all fields of cultural participation continue to exist. These differences in cultural participation between former art students and their schoolmates are the net result of the art lessons in secondary school. It is important to note [cf. Appendix] that the effect of art education are restricted to the field of instruction: musical instruction influences musical participation, not participation in visual arts, and *vice versa*. This increases our confidence that the remaining effects are indeed due to instruction.

## Conclusions and discussion

Former secondary school students who were submitted to secondary art education and passed an art examination, participate more in cultural activities ten to twenty years later than their former schoolmates who did not pass an art examination. The effects are restricted to the same art discipline as the art lessons attended, and apply to both receptive (enjoying art of professional artists) and productive (producing amateur art) cultural participation. However, the higher cultural participation of former art students is not entirely caused by the art education programmes in secondary school: about one half must be attributed to the fact that former art students were already interested in art before they were submitted to the art education programme. However, the other half can safely be attributed to the training in the arts during secondary schooling.

A comment should be made about the relative impact of art education in secondary school as compared to other determinants of cultural participation, like the general level of education and family background. Table II visualizes the relative impact of four factors besides art education (instruction), drawing upon the standardised regression coefficients listed in the Appendix. It turns out that cultural participation in childhood, and – in receptive cultural participation – parental socialization, are far more important determinants of later cultural participation than is art education in secondary school. Although art education does leave traceable differences in cultural participation ten to twenty years later in life, the reader is reminded that early exposure to arts in the parental family is a much more powerful determinant.

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1 See Nagel *et al.* [1996] Another part of the project involved the effects on social economic careers. This paper is limited to cultural participation. The project was commissioned by the Ministry of Culture [OCW] and the National Center for Arts Education [LOKV]

2 This situation will change in the next years as a new structure of the second phase of secondary education is implemented

Appendix: Differences in cultural participation between former secondary art students and their schoolmates, before [a] and after [b] controlling for selection. Regression equations.

	Receptive visual (N = 1010)		Receptive musical (N = 1010)		Productive visual (N = 958) <sup>c</sup>		Productive musical (N = 980) <sup>c</sup>	
	a	b	a	b	a	b	a	b
<i>Instruction</i>	<b>.31***</b>	<b>.20***</b>	<b>.15***</b>	<b>.07*</b>	<b>.25***</b>	<b>.13***</b>	<b>.28***</b>	<b>.19***</b>
visual art	.32***	.20***	.08*	-.00	.25***	.12***	.06*	.04*
music	.04	.01	.15***	.07*	.01	.02	.19***	.09**
visual arts	(.64)	(.41)	(.15)	(-.01)	(.51)	(.24)	(.13)	(.08)
music	(.15)	(.03)	(.62)	(.26)	(.04)	(-.10)	(.82)	(.40)
<i>Control variables</i>		<b>.10***</b>		<b>.09***</b>		<b>.20***</b>		<b>.10***</b>
<i>Demographics</i>								
age		.05		.05		.02		.03
woman		-.09***		-.07*		-.20***		-.05
not living with parents		.01		.02		-.01		.03
<i>Intellectual abilities</i>		<b>.13***</b>		<b>.12***</b>		<b>.05</b>		<b>.03</b>
level of secondary education		.10***		.07*		-.02		-.03
grades available		-.01		.01		.04		-.01
alpha-topics		.06*		.07*		-.03		-.00
high grades		.05*		.07*		.01		.05
<i>Family background</i>		<b>.22***</b>		<b>.23***</b>		<b>.09**</b>		<b>.08**</b>
parents available		.07**		.06*		-.01		.06
parents education		.06		.03		-.04		-.06
receptive visual cult.part. parents		.19***		.15***		-.04		.08
receptive musical cult.part. parents		-.04		.08*		.04		-.00
productive visual cult.part. parents		-.04		-.03		.01		-.00
productive musical cult.part. parents		.04		.01		.08*		.05
<i>Cultural activities in childhood</i>		<b>.32***</b>		<b>.33***</b>		<b>.28***</b>		<b>.31***</b>
receptive visual cult.part youth		.25***		.12***		.02		-.02
receptive musical cult.part. youth		.05		.24***		-.01		.02
productive visual cult.part. youth		.11***		.02		.27***		.00
productive music cult.part. youth		.04		.10**		.04		.30***
R2 adjusted	.10	.35	.02	.27	.06	.17	.03	.12

\*\*\* significant .001; \*\* significant .01; \* significant .05. In productive participation professionals are left out. All coefficients are standardised, except in parentheses: unstandardised regression coefficients. Bold: summary coefficients for groups of variables.