

# Examination Performance and Art Students

## Introduction

Austwick<sup>1</sup> and Wankowski<sup>2</sup> point out significant correlations between 'A' level grades and quality of pass at first degree level. Warburton, Butcher and Forrest<sup>3</sup> and Cortis<sup>4</sup> also find significant correlations between 'A' level grades and quality of pass in theory examinations in teacher training examinations in University Departments of Education and Colleges of Education. Little, if any, work has been done on relationships between 'A' level and the Diploma in Art and Design and the Art Teacher's Certificate examinations. Evidence on the presence or absence of any relationship between various types of results could offer some objective information on criteria useful for entry to A.T.C. courses.

## Aims of the Investigation

To ascertain among post graduate A.T.C. students the relationship between,

- 'A' level results and Dip. A.D. results.
- 'A' level results and A.T.C. results in both theory and practical teaching.
- Dip. A.D. results and A.T.C. results in both theory and practical teaching.

## Sample and Procedure

The sample comprised 1,821 students who had undertaken A.T.C. courses during the period 1970-1973. These students were drawn from eleven A.T.C. centres and there were 897 and 924 women. Relevant data appertaining to individual 'A' levels, Dip. A.D. and A.T.C. performances were abstracted from college records and transferred to punched cards. The relevant information was subsequently analysed statistically.

## Results and Discussion

The results relating to 'A' level, Dip. A.D. and A.T.C. results are shown in Tables 1 - 10.

### 'A' Level Results and Dip. A.D. Results

The hypothesis tested was that no association existed between the number of 'A' levels obtained and Dip. A.D. results. The null hypothesis, that there is no significant difference between 'A' level results and Dip. A.D. results was assumed. The various areas of Dip. A.D., Fine Art, Three Dimensional Design, Graphic Design and Textiles/Fashion were examined separately and combined. Students were categorised into those with no 'A' levels, one 'A' level, two 'A' levels and three or more 'A' levels and compared with the Dip. A.D. classifications 1.1, 2.1, 2.2 and pass. Grades at 'A' level were also compared with final Dip. A.D. results.

The results for the four separate Dip. A.D. areas are given below in Table 1.

Table 1. Chi Square Results for Relations between Dip. A.D. Grades and Numbers of 'A' levels in the Respective Areas of Fine Art, 3D Design, Graphic Design and Textiles/Fashion.

Subject	X <sup>2</sup>	Sig.	Totals
Fine Art	17.65	0.05 level	723
3D Design	1.12	N. Sig.	242
Graphic Design	2.40	N. Sig.	207
Text./Fashion	4.77	N. Sig.	177
All Areas	18.31	0.05 level	1349

The direction of the significant relationships between Fine Art grades and numbers of 'A' levels and all areas of Dip. A.D. and numbers of 'A' levels appears to be between those students gaining high grades and high numbers of 'A' levels (Tables 2 and 3).

Table 2. Frequency of 'A' levels and Different Dip. A.D. Grades for Fine Art.

Number of 'A' Levels	Dip. A.D. Grades				Totals
	1.1	2.1	2.2	Pass	
None	13	23	45	30	111
1	14	97	97	75	283
2	9	55	82	42	188
3 or more	13	41	58	29	141
Totals	49	216	282	176	723

$$X^2 = 17.65 \text{ for } 9 \text{ df. } p = 0.05$$

Table 3. Frequency of 'A' levels and Different Dip. A.D. Grades for all Areas.

Number of 'A' Levels	Dip. A.D. Grades				Totals
	1.1	2.1	2.2	Pass	
None	17	40	81	67	205
1	31	160	192	175	558
2	18	93	135	79	325
3 or more	19	70	109	63	261
Totals	85	363	517	384	1349

$$X^2 = 18.31 \text{ for } 9 \text{ df. } p = 0.05$$

X<sup>2</sup> values for the relationships between Dip. A.D. grades and 'A' level grades in Fine Art, 3D Design, Graphic Design and Textiles/Fashion were all significant.

### 'A' Level Results and A.T.C. Results

#### (1) 'A' Level and Practical Teaching

Practical subject 'A' level grades and A.T.C. practical teaching grades were examined. The practical 'A' level grades included all Art and Craft subjects and Domestic Science, Woodwork, Metalwork, Needlework and Technical Drawing. Academic 'A' levels, all those not termed practical in the present study, were also compared with A.T.C. theory and

practical teaching result. Finally, Art 'A' Levels were compared with A.T.C. theory and practical teaching results.

X<sup>2</sup> values for the relationships between 'A' level results and A.T.C. practical teaching results were all insignificant.

(2) 'A' Level and Theory

X<sup>2</sup> values for the relationships between 'A' Level results and A.T.C. theory results were all insignificant.

*Dip. A.D. Results and A.T.C. Results*

The relationship between Dip. A.D. results and A.T.C. results were examined among the following categories.

(a) Distribution of Dip. A.D. grades from the four areas of Fine Art, Graphic Design, 2D Design and Textiles/Fashion and A.T.C. Practical Teaching and Theory grades.

(b) Distribution of Dip. A.D. grades from the four areas of Fine Art, Graphic Design, 3D Design and Textiles/Fashion and A.T.C. Practical Teaching and Theory grades for men and women.

No significant relationship was found between Dip. A.D. grades and Practical Teaching grades but a significant relationship was found between Dip. A.D. grades and A.T.C. Theory grades. (X<sup>2</sup> = 8.52 for 1 df. p .01)

Table 4. Distribution of Total Dip. A.D. High (1.1 and 2.1) and Low (2.2 and Pass) Grades and A.T.C. Theory Grades. All students.

A.T.C. Theory	Dip. A.D. Grades		Totals
	1.1/2.1	2.2/Pass	
A/B	43	50	93
C/D	43	115	153
Totals	86	165	251

X<sup>2</sup> = 8.52 for 1 df. p 0.01

Details of the chi-square values for the relationships between Dip. A.D. grades and A.T.C. resulted in Practical Teaching and Theory for men and women are shown in Table 5.

Table 5. Chi-Square Results for Dip. A.D. Grades from Four Areas and A.T.C. Practical Teaching and Theory Grades for men and women.

A.T.C. Theory and Practical Teaching	X <sup>2</sup>	Sig.	Totals
A.T.C. Theory Grades for Women	3.15	0.05 level	137
A.T.C. Theory Grades for Men	4.93	0.05 level	116
A.T.C. Practical Teaching Grades for Women	0.06	N. Sig.	137
A.T.C. Practical Teaching Grades for Men	1.63	N. Sig.	116

Details of the significant relationships indicated above are included in Tables 6 and 7.

Table 6. Distribution of Total Dip. A.D. High (1.1 and 2.1) and Low (2.2 and Pass) Grades and A.T.C. Theory Grades for Women.

A.T.C. Theory	Dip. A.D. Grades		Totals
	1.1/2.1	2.2/Pass	
A/B	19	29	48
C/D	21	68	89
Totals	40	97	137

X<sup>2</sup> = 3.15 for 1 df. p 0.05

Table 7. Distribution of Total Dip. A.D. High (1.1 and 2.1) and Low (2.2 and Pass) Grades and A.T.C. Theory Grades for Men.

A.T.C. Theory	Dip. A.D. Grades		Totals
	1.1/2.1	2.2/Pass	
A/B	24	22	46
C/D	21	49	70
Totals	45	71	116

X<sup>2</sup> = 4.93 for 1 df. p 0.05

Investigations into the relationships between examination results at 'A' level and degree level are pertinent because of the use of 'A' level results in selection procedures for courses in higher education. Although they are widely used some workers, Bagg<sup>5</sup> and Lofthouse and Sykes<sup>6</sup> suggest that additional factors may be important.

The results shown in Tables 2 and 3, in general, support the findings of Warburton, Butcher and Forrest<sup>3</sup>, Cortis<sup>4</sup> and Lomax<sup>7</sup> as regards number of subjects studied at 'A' level examinations results in the academic component of teaching qualifications. Little evidence is available in the literature on the relationship between numbers of 'A' levels and degree examination results. The data in Tables 2 and 3 provide some evidence that the number of 'A' levels is associated with success in the Dip. A.D. sphere, and suggests that perhaps studies of the number of 'A' levels and degree examination results might show similar results.

A number of investigators, for example, Wankowski<sup>2</sup>, and N.F.E.R. have studied the relationship between 'A' level results and degree results using the grades obtained at 'A' level. The N.F.E.R. concluded that the best predictor of success on the first year university course and final degree was the mean 'A' level grade. There was little evidence of any relationship between subject studied at 'A' level and subject later studied at university. Wankowski<sup>2</sup> has pointed out that any relationship between 'A' level and degree subject results might be influenced by the pattern of 'A' level subjects studied. Many of the significant correlations between 'A' levels and degrees found

in investigations have been obtained when mean 'A' level scores were correlated using 'A' level subjects characterised by the level of intellectual study required by both types of course. The fact that no significant  $X^2$  value occurred for 'A' level grades and Dip. A.D. grades provides evidence which tends to support the N.F.E.R. findings, as well as tending to confirm the view of Dip. A.D. tutors who claim that Art 'A' level grades bear little relationship to the type of work done in art colleges.

No significant associations existed between 'A' level grades and A.T.C. practical teaching and theory grades. Even when 'A' level grades are considered according to academic and practical criteria there exists no significant relationship between academic and practical 'A' level grades and A.T.C. practical teaching and theory grades. It would be interesting to know whether this lack of association is due to the very different methods of work found in A.T.C. and 'A' level examinations.

#### *Dip. A.D. Grades and A.T.C. Results*

Significant relationships existed between Dip. A.D. grades and A.T.C. theory grades for all students as well as for men and women considered singly (Tables 4, 5, 6 and 7). There is significant evidence that in the theory component of the final A.T.C. award the tendency is for men and women gaining high grades at Dip. A.D. levels to gain high grades in the theory examination. The finding on the whole with respect to the relationship between Dip. A.D. grades and A.T.C. theory results confirms the similar findings of Warburton, Butcher and Forrest<sup>3</sup>, Morgan<sup>9</sup>, Lovell<sup>10</sup>, Lomax<sup>7</sup> and Cortis.<sup>4</sup>

There was no significant  $X^2$  value for practical teaching grades and Dip. A.D. grades (Table 8). Warburton, Butcher and Forrest<sup>3</sup> in their study found no significant relationship between quality of practical teaching and degree level results. The data given in Table 8 which shows there was no significant  $X^2$  value for practical teaching grades and Dip. A.D. grades is in line with their findings.

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