

Course Code: EFM 311/ EFM 511/ EDF 300 (B.Ed III, PGCE) 2018

UNIVERSITY OF ESWATINI



FACULTY OF EDUCATION

DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND

MANAGEMENT 2019

FIRST SEMESTER RE-SIT EXAMINATION PAPER

JANUARY, 2019

TITLE OF PAPER: HISTORY AND PHILOSOPHY OF EDUCATION

COURSE CODE: EFM 311/EFM511/EDF300

TIME ALLOWED: Three (3) hours

INSTRUCTIONS: Answer any four (4) questions

TOTAL MARK ALLOCATION: 100 MARKS

THIS PAPER CONSISTS OF THREE PAGES INCLUDING THE COVER PAGE

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INVIGILATOR

Question 1

(a) Examine the epistemological basis of the teaching methods used by Pythagoras, Socrates and Protagoras in Ancient Greek education. (18 marks)

(b) Explain **when** and **how** you would use each of the approaches for effective teaching. (7 marks)

[Total 25 marks]

Question 2

Compare and contrast the Western view of communitarianism with the African communitarian philosophy of Ubuntu.

[Total 25 marks]

Question 3

Discuss the curriculum and teaching method(s) in the Roman education system. In your discussion, illustrate the limitations of the philosophy or epistemology that informed such an education system. [Total 25 marks]

Question 4

(a) Describe the conditions that led to the Renaissance. (15 marks)

(b) What was the Renaissance's contribution to modern education? (10 marks)

[Total 25 marks]

Question 5

(a) Pestalozzi in his educational ideas described education of the child in terms of mind, hearts and hands as part of education of the "whole child". What does this involve? (3 marks)

(b) Discuss the relevance of Pestalozzi's ideas of education of the "whole child" in the modern school environment. (22 marks)

[Total 25 marks]

Question 6

Akinpelu (1987) describes Julius Nyerere the former Tanzanian President as a Philosopher King in the ideas of Plato because of his position and original ideas in education of the African Child.

- (a) Discuss Nyerere's criticism of British education at independence (15 marks)
- (b) Examine his contribution to education of the African child in the modern education system. (10 marks)

[Total 25 marks]

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STATISTICAL FORMULAE

Sample Variance: $S^2 = \frac{\sum(x-\bar{x})^2}{n-1}$

Sample Standard Deviation: $s = \sqrt{\frac{\sum(x-\bar{x})^2}{n-1}}$

Product moment correlation coefficient:

$$r_{xy} = \frac{n\sum xy - \sum x \sum y}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Spearman's rank order correlation coefficient:

$$rho = 1 - \frac{6\sum d^2}{n(n^2-1)}$$

Chi-squared Test Statistic:

$$\chi^2 = \sum \frac{(O-E)^2}{E}$$

Z-score:

$$z = \frac{x-\bar{x}}{s}$$

Standardisation:

$$z = \frac{u-\mu}{\sigma}$$

Where $Z \sim N(0,1)$

T-score:

$$T = 50 + 10 \left(\frac{x-\bar{x}}{s} \right)$$

Student t-test:

$$t = \frac{\sqrt{(n-1)} \sum d}{\sqrt{n \sum d^2 - (\sum d)^2}}$$

ANALYSIS OF VARIANCE (ANOVA) FORMULAE

$$1. \quad SS(TOTAL) = \sum x^2 - \frac{(\sum x)^2}{n}$$

$$2. \quad SST = SS(\text{Treatment}) = SS(\text{Btwn Grps}) = \sum \frac{T_i^2}{n_i} - \frac{(\sum x)^2}{n} = \frac{T_1^2}{n_1} + \frac{T_2^2}{n_2} + \dots + \frac{T_p^2}{n_p} - \frac{(\sum x)^2}{n}$$

$$3. \quad SSE = SS(TOTAL) - SST$$

[N.B. $SSE = SS(\text{Error}) = SS(\text{Within Groups}) = SS(\text{Residual})$]

$$4. \quad MST = \frac{SST}{p-1}$$

$$5. \quad MSE = \frac{SSE}{n-p}$$

$$6. \quad F_{calc} = \frac{MST}{MSE}$$

ONE-WAY ANOVA TABLE

Source of variation	Sum of squares	Degrees of Freedom (df)	Mean Square	F_{calc}
Between Groups (Treatments)	SST	$p-1$	$MST = \frac{SST}{p-1}$	$F_{calc} = \frac{MST}{MSE}$
Within Groups (Error or Residual)	SSE	$n-p$	$MSE = \frac{SSE}{n-p}$	
Total	$SS(TOTAL)$	$n-1$		

n = total number of observations

p = number of treatments (number of samples or groups)

$p-1$ = numerator degrees of freedom

$n-p$ = denominator degrees of freedom

T_i = total for group i ($i = 1, 2, 3, \dots, p$)

n_i = number of observations in group i ($i = 1, 2, 3, \dots, p$)

TABLE IV Critical Values of Chi Square

df	Level of significance for a non-directional test					
	.20	.10	.05	.02	.01	.001
1	1.64	2.71	3.84	5.41	6.64	10.83
2	3.22	4.60	5.99	7.82	9.21	13.82
3	4.64	6.25	7.82	9.84	11.34	16.27
4	5.99	7.78	9.49	11.67	13.28	18.46
5	7.29	9.24	11.07	13.39	15.09	20.52
6	8.56	10.64	12.59	15.03	16.81	22.46
7	9.80	12.02	14.07	16.62	18.48	24.32
8	11.03	13.36	15.51	18.17	20.09	26.12
9	12.24	14.68	16.92	19.68	21.67	27.88
10	13.44	15.99	18.31	21.16	23.21	29.59
11	14.63	17.28	19.68	22.62	24.72	31.26
12	15.81	18.55	21.03	24.05	26.22	32.91
13	16.98	19.81	22.36	25.47	27.69	34.53
14	18.15	21.06	23.68	26.87	29.14	36.12
15	19.31	22.31	25.00	28.26	30.58	37.70
16	20.46	23.54	26.30	29.63	32.00	39.29
17	21.62	24.77	27.59	31.00	33.41	40.75
18	22.76	25.99	28.87	32.35	34.80	42.31
19	23.90	27.20	30.14	33.69	36.19	43.82
20	25.04	28.41	31.41	35.02	37.57	45.32
21	26.17	29.62	32.67	36.34	38.93	46.80
22	27.30	30.81	33.92	37.66	40.29	48.27
23	28.43	32.01	35.17	38.97	41.64	49.73
24	29.55	33.20	36.42	40.27	42.98	51.18
25	30.68	34.38	37.65	41.57	44.31	52.62
26	31.80	35.56	38.88	42.86	45.64	54.05
27	32.91	36.74	40.11	44.14	46.96	55.48
28	34.03	37.92	41.34	45.42	48.28	56.89
29	35.14	39.09	42.69	46.69	49.59	58.30
30	36.25	40.26	43.77	47.96	50.89	59.70
32	38.47	42.59	46.19	50.49	53.49	62.49
34	40.68	44.90	48.60	53.00	56.06	65.25
36	42.88	47.21	51.00	55.49	58.62	67.99
38	45.08	49.51	53.38	57.97	61.16	70.70
40	47.27	51.81	55.76	60.44	63.69	73.40
44	51.64	56.37	60.48	65.34	68.71	78.75
48	55.99	60.91	65.17	70.20	73.68	84.04
52	60.33	65.42	69.83	75.02	78.62	89.27
56	64.66	69.92	74.47	79.82	83.51	94.46
60	68.97	74.40	79.08	84.58	88.38	99.61

Find the row corresponding to the indicated degrees of freedom, find the column corresponding to the chosen level of significance, the critical value of χ^2_{crit} is at the intersection of that row and that column. If $\chi^2_{obs} \geq \chi^2_{crit}$ then H_0 is rejected.

TABLE II Critical Values of t : Student t -test

df	Level of significance for a directional (one-tailed) test					
	.10	.05	.025	.01	.005	.0005
	Level of significance for a non-directional (two-tailed) test					
	.20	.10	.05	.02	.01	.001
1	3.078	6.314	12.706	31.821	63.657	636.619
2	1.886	2.920	4.303	6.965	9.925	31.598
3	1.638	2.353	3.182	4.541	5.841	12.941
4	1.533	2.132	2.776	3.747	4.604	8.610
5	1.476	2.015	2.571	3.365	4.032	6.859
6	1.440	1.943	2.447	3.143	3.707	5.959
7	1.415	1.895	2.365	2.998	3.499	5.405
8	1.397	1.860	2.306	2.896	3.355	5.041
9	1.383	1.833	2.262	2.821	3.250	4.781
10	1.372	1.812	2.228	2.764	3.169	4.587
11	1.363	1.796	2.201	2.718	3.106	4.437
12	1.356	1.782	2.179	2.681	3.055	4.318
13	1.350	1.771	2.160	2.650	3.012	4.221
14	1.345	1.761	2.145	2.624	2.977	4.140
15	1.341	1.753	2.131	2.602	2.947	4.073
16	1.337	1.746	2.120	2.583	2.921	4.015
17	1.333	1.740	2.110	2.567	2.898	3.965
18	1.330	1.734	2.101	2.552	2.878	3.922
19	1.328	1.729	2.093	2.539	2.861	3.883
20	1.325	1.725	2.086	2.528	2.845	3.850
21	1.323	1.721	2.080	2.518	2.831	3.819
22	1.321	1.717	2.074	2.508	2.819	3.792
23	1.319	1.714	2.069	2.500	2.807	3.767
24	1.318	1.711	2.064	2.492	2.797	3.745
25	1.316	1.708	2.060	2.485	2.787	3.725
26	1.315	1.706	2.056	2.479	2.779	3.707
27	1.314	1.703	2.052	2.473	2.771	3.690
28	1.313	1.701	2.048	2.467	2.763	3.674
29	1.311	1.699	2.045	2.462	2.756	3.659
30	1.310	1.697	2.042	2.457	2.750	3.646
40	1.303	1.684	2.021	2.423	2.704	3.551
60	1.296	1.671	2.000	2.390	2.660	3.460
120	1.289	1.658	1.980	2.358	2.617	3.373
∞	1.282	1.645	1.960	2.326	2.576	3.291

Find the row corresponding to the indicated degrees of freedom, find the column corresponding to the chosen level of significance, taking into account the type of H_1 (directional or non-directional). The critical value t_{crit} is at the intersection of that row and that column. If $t_{obs} \geq t_{crit}$, then H_0 is rejected.