

รายการอ้างอิง

ภาษาไทย

เจน รัตน์ไพศาล.2533. ทันตวัสดุศาสตร์. พิมพ์ครั้งที่ 2. กรุงเทพมหานคร : บริษัทโรงพิมพ์
ไทยวัฒนาพานิช จำกัด.

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ภาคผนวก

ข้อมูลทางสถิติที่ใช้ในการวิจัย

03 Aug 97 SPSS for MS WINDOWS Release 6.0

----- O N E W A Y -----

Variable LOAD

By Variable GROUP

Analysis of Variance

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Gr	9	30127.0064	3347.4452	.9188	.5128
Within Gro	90	327889.5320	3643.2170		
Total	99	358016.5384			

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf Int for Mean
Grp 1	10	592.7500	65.7212	20.7829	545.7359 TO 639.7641
Grp 2	10	548.9600	55.1085	17.4268	509.5378 TO 588.3822
Grp 3	10	559.9500	62.7929	19.8569	515.0307 TO 604.8693
Grp 4	10	553.5600	76.0223	24.0404	499.1769 TO 607.9431
Grp 5	10	594.7100	46.0054	14.5482	561.7998 TO 627.6202
Grp 6	10	562.6500	63.9844	20.2337	516.8783 TO 608.4217
Grp 7	10	583.7100	50.7876	16.0605	547.3787 TO 620.0413
Grp 8	10	587.6300	64.9274	20.5319	541.1837 TO 634.0763
Grp 9	10	593.9900	59.5217	18.8224	551.4108 TO 636.5692
Grp10	10	590.1300	52.9652	16.7491	552.2410 TO 628.0190
Total	100	576.8040	60.1359	6.0136	564.8717 TO 588.7363

GROUP	MINIMUM	MAXIMUM
Grp 1	478.4000	679.6000
Grp 2	464.2000	628.1000
Grp 3	439.1000	673.4000
Grp 4	443.8000	695.6000
Grp 5	513.5000	675.1000

Grp 6	427.0000	637.1000
Grp 7	531.1000	664.4000
Grp 8	492.7000	692.3000
Grp 9	503.5000	675.7000
Grp10	483.6000	670.1000
TOTAL	427.0000	695.6000

Levene Test for Homogeneity of Variances

Statistic	df1	df2	2-tail Sig.
.5279	9	90	.851

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----- O N E W A Y -----

Variable LOAD

By Variable GROUP

Multiple Range Tests: LSD test with significance level .05

The difference between two means is significant if

$$\text{MEAN}(J) - \text{MEAN}(I) \geq 42.6803 * \text{RANGE} * \text{SQRT}(1/N(I) + 1/N(J))$$

with the following value(s) for RANGE: 2.81

- No two groups are significantly different at the .050 level

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1

Group	Grp 2	Grp 4	Grp 3	Grp 6	Grp 7
Mean	548.9600	553.5600	559.9500	562.6500	583.7100
Group	Grp 8	Grp10	Grp 1	Grp 9	Grp 5
Mean	587.6300	590.1300	592.7500	593.9900	594.7100

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----- O N E W A Y -----

Variable LOAD

By Variable GROUP

Multiple Range Tests: Tukey-HSD test with significance level .050

The difference between two means is significant if

$$\text{MEAN}(J) - \text{MEAN}(I) \geq 42.6803 * \text{RANGE} * \text{SQRT}(1/N(I) + 1/N(J))$$

with the following value(s) for RANGE: 4.59

- No two groups are significantly different at the .050 level

Homogeneous Subsets (highest and lowest means are not significantly different)

Subset 1

Group	Grp 2	Grp 4	Grp 3	Grp 6	Grp 7
Mean	548.9600	553.5600	559.9500	562.6500	583.7100
Group	Grp 8	Grp10	Grp 1	Grp 9	Grp 5
Mean	587.6300	590.1300	592.7500	593.9900	594.7100

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* * * C E L L M E A N S * * *

FORCE retentive force breaking the tooth
 by PATTERN pattern of the bur
 DIRECT direction of the groove

Total Population

575.03

(90)

PATTERN	1	2	3
	554.16	580.36	590.58
	(30)	(30)	(30)

DIRECT	1	2	3
	577.10	572.20	575.80
	(30)	(30)	(30)

DIRECT

	1	2	3
PATTERN			
1	548.96	559.95	553.56
	(10)	(10)	(10)
2	594.71	562.65	583.71
	(10)	(10)	(10)
3	587.63	593.99	590.13
	(10)	(10)	(10)

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* * * ANALYSIS OF VARIANCE * * *

FORCE retentive force breaking the tooth
 by PATTERN pattern of the bur
 DIRECT direction of the groove
 EXPERIMENTAL sums of squares
 Covariates entered FIRST

Source of Variation	Sum of Squares	DF	Mean Square	F	Sig of F
Main Effects	21566.434	4	5391.609	1.511	.207
Pattern	21179.268	2	10589.634	2.968	.057
Direct	387.167	2	193.583	.054	.947
2-Way Interactions	5735.295	4	1433.824	.402	.807
Pattern Direct	5735.295	4	1433.824	.402	.807
Explained	27301.730	8	3412.716	.956	.476
Residual	289016.087	81	3568.100		
Total	316317.817	89	3554.133		

90 cases were processed.

0 cases (.0 pct) were missing.

*

ประวัติผู้วิจัย

ทันตแพทย์ บุญชัย เซาวนไถลงวงส์ เกิดเมื่อวันที่ 30 มิถุนายน พ.ศ. 2508 สำเร็จการศึกษาทันตแพทยศาสตรบัณฑิตจากคณะทันตแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่ เมื่อปี พ.ศ. 2533 และเข้าศึกษาต่อในหลักสูตรวิทยาศาสตรมหาบัณฑิต คณะทันตแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย เมื่อปีพ.ศ. 2538 ปัจจุบันรับราชการในตำแหน่งอาจารย์ประจำภาควิชาทันตกรรมประดิษฐ์ คณะทันตแพทยศาสตร์ มหาวิทยาลัยเชียงใหม่