

เอกสารอ้างอิง

1. ไพฑูรย์ จินดาโรจนกุล. "การวิเคราะห์ภาพถ่ายด้านข้างของกะโหลกศีรษะด้วยรังสีเอกซ์ ในเด็กอายุ 6 - 18 ปี โดยใช้เกณฑ์ของริกเกตส์" วิทยานิพนธ์ปริญญามหาบัณฑิต ภาควิชาทันตกรรมจัดฟัน บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย, 2525.
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ศูนย์วิทยทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย

ภาคผนวก

1. คำอธิบายของชื่อตัวแปร

Y1	=	Max Lth	
Y2	=	Mand Lth	
Y3	=	ALFH	
Y4	=	PLFH	
Y5	=	AUFH	
Y6	=	$\bar{l}$ to Pt A line	
Y7	=	$\bar{l}$ to Pt B line	
Y8	=	$\bar{l}$ to Pogonion line	
Y9	=	Angle of facial Convexity	
Y10	=	Ba $\hat{N}$ A	
Y11	=	$\frac{ALFH + PLFH}{2}$	= $\frac{Y3 + Y4}{2}$
Y12	=	$\frac{Max Lth}{Mand Lth}$	= $\frac{Y1}{Y2}$
Y13	=	$\frac{ALFH + PLFH}{2} \times \frac{1}{Max Lth}$	= $\frac{Y11}{Y1}$
Y14	=	$\frac{AUFH}{ALFH}$	= $\frac{Y5}{Y3}$

## 2. ข้อมูลที่วิเคราะห์ได้จากกลุ่มตัวอย่างเพศหญิง

AGE					
MEAN	17.695	STD ERR	0.114	MEDIAN	17.600
MODE	16.100	STD DEV	1.140	VARIANCE	1.300
KURTOSIS	-0.385	SKEWNESS	0.500	RANGE	4.700
MINIMUM	16.000	MAXIMUM	20.700		
VALID CASES	100	MISSING CASES	0		
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Y1					
MEAN	48.155	STD ERR	0.195	MEDIAN	48.250
MODE	49.500	STD DEV	1.947	VARIANCE	3.791
KURTOSIS	0.068	SKEWNESS	0.151	RANGE	10.500
MINIMUM	43.000	MAXIMUM	53.500		
VALID CASES	100	MISSING CASES	0		
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Y2					
MEAN	48.760	STD ERR	0.249	MEDIAN	48.750
MODE	49.500	STD DEV	2.486	VARIANCE	6.179
KURTOSIS	-0.367	SKEWNESS	0.027	RANGE	11.500
MINIMUM	43.000	MAXIMUM	54.500		
VALID CASES	100	MISSING CASES	0		
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Y3					
MEAN	63.865	STD ERR	0.296	MEDIAN	63.333
MODE	63.000	STD DEV	2.958	VARIANCE	8.752
KURTOSIS	-0.624	SKEWNESS	0.306	RANGE	12.500
MINIMUM	58.000	MAXIMUM	70.500		
VALID CASES	100	MISSING CASES	0		
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Y4					
MEAN	43.595	STD ERR	0.293	MEDIAN	43.550
MODE	44.000	STD DEV	2.932	VARIANCE	8.599
KURTOSIS	-0.157	SKEWNESS	0.107	RANGE	14.000
MINIMUM	37.000	MAXIMUM	51.000		
VALID CASES	100	MISSING CASES	0		
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Y5

MEAN	52.970	STD ERR	0.243	MEDIAN	53.306
MODE	54.000	STD DEV	2.429	VARIANCE	5.898
KURTOSIS	-0.062	SKEWNESS	-0.104	RANGE	11.500
MINIMUM	47.000	MAXIMUM	58.500		

VALID CASES	100	MISSING CASES	0
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Y6

MEAN	11.310	STD ERR	0.191	MEDIAN	11.125
MODE	10.000	STD DEV	1.915	VARIANCE	3.666
KURTOSIS	0.080	SKEWNESS	0.373	RANGE	10.000
MINIMUM	6.500	MAXIMUM	16.500		

VALID CASES	100	MISSING CASES	0
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Y7

MEAN	4.475	STD ERR	0.178	MEDIAN	4.250
MODE	4.000	STD DEV	1.779	VARIANCE	3.164
KURTOSIS	0.040	SKEWNESS	0.468	RANGE	8.500
MINIMUM	1.000	MAXIMUM	9.500		

VALID CASES	100	MISSING CASES	0
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Y8

MEAN	1.680	STD ERR	0.234	MEDIAN	1.464
MODE	0.0	STD DEV	2.345	VARIANCE	5.498
KURTOSIS	-0.768	SKEWNESS	0.256	RANGE	10.000
MINIMUM	-3.000	MAXIMUM	7.000		

VALID CASES	100	MISSING CASES	0
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Y9

MEAN	166.830	STD ERR	0.342	MEDIAN	166.750
MODE	167.000	STD DEV	3.422	VARIANCE	11.713
KURTOSIS	-0.315	SKEWNESS	0.174	RANGE	16.000
MINIMUM	159.000	MAXIMUM	175.000		

VALID CASES	100	MISSING CASES	0
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## Y10

MEAN	63.935	STD ERR	0.250	MEDIAN	63.688
MODE	67.000	STD DEV	2.498	VARIANCE	6.241
KURTOSIS	-0.588	SKEWNESS	0.093	RANGE	11.500
MINIMUM	58.000	MAXIMUM	69.500		

VALID CASES	100	MISSING CASES	0
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## Y11

MEAN	53.730	STD ERR	0.214	MEDIAN	53.583
MODE	53.000	STD DEV	2.139	VARIANCE	4.574
KURTOSIS	0.476	SKEWNESS	0.463	RANGE	11.250
MINIMUM	48.500	MAXIMUM	59.750		

VALID CASES	100	MISSING CASES	0
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## Y12

MEAN	0.939	STD ERR	0.004	MEDIAN	0.989
MODE	1.000	STD DEV	0.040	VARIANCE	0.002
KURTOSIS	-0.385	SKEWNESS	0.353	RANGE	0.174
MINIMUM	0.915	MAXIMUM	1.089		

VALID CASES	100	MISSING CASES	0
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## Y13

MEAN	1.116	STD ERR	0.003	MEDIAN	1.116
MODE	1.071	STD DEV	0.033	VARIANCE	0.001
KURTOSIS	-0.550	SKEWNESS	0.115	RANGE	0.137
MINIMUM	1.052	MAXIMUM	1.189		

VALID CASES	100	MISSING CASES	0
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## Y14

MEAN	0.831	STD ERR	0.005	MEDIAN	0.825
MODE	0.870	STD DEV	0.045	VARIANCE	0.002
KURTOSIS	-0.684	SKEWNESS	0.102	RANGE	0.194
MINIMUM	0.734	MAXIMUM	0.929		

VALID CASES	100	MISSING CASES	0
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## 3. ข้อมูลที่วิเคราะห์ได้จากกลุ่มตัวอย่างเพศชาย

AGE					
MEAN	19.283	STD ERR	0.189	MEDIAN	19.221
MODE	19.200	STD DEV	1.889	VARIANCE	3.567
KURTOSIS	0.034	SKEWNESS	0.414	RANGE	8.500
MINIMUM	16.200	MAXIMUM	24.700		

VALID CASES	100	MISSING CASES	0
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Y1

MEAN	51.070	STD ERR	0.193	MEDIAN	50.934
MODE	50.000	STD DEV	1.925	VARIANCE	3.707
KURTOSIS	1.278	SKEWNESS	0.561	RANGE	11.000
MINIMUM	46.500	MAXIMUM	57.500		

VALID CASES	100	MISSING CASES	0
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Y2

MEAN	51.110	STD ERR	0.265	MEDIAN	51.036
MODE	52.500	STD DEV	2.654	VARIANCE	7.043
KURTOSIS	-0.027	SKEWNESS	0.409	RANGE	12.500
MINIMUM	46.000	MAXIMUM	58.500		

VALID CASES	100	MISSING CASES	0
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Y3

MEAN	67.840	STD ERR	0.335	MEDIAN	67.583
MODE	65.000	STD DEV	3.345	VARIANCE	11.191
KURTOSIS	0.621	SKEWNESS	0.416	RANGE	18.000
MINIMUM	59.500	MAXIMUM	77.500		

VALID CASES	100	MISSING CASES	0
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Y4

MEAN	47.855	STD ERR	0.329	MEDIAN	47.750
MODE	49.000	STD DEV	3.287	VARIANCE	10.804
KURTOSIS	-0.002	SKEWNESS	0.236	RANGE	17.000
MINIMUM	41.000	MAXIMUM	58.000		

VALID CASES	100	MISSING CASES	0
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Y5

MEAN	57.070	STD ERR	0.294	MEDIAN	56.850
MODE	55.000	STD DEV	2.935	VARIANCE	8.616
KURTOSIS	-0.214	SKEWNESS	0.170	RANGE	16.000
MINIMUM	50.000	MAXIMUM	66.000		

VALID CASES	100	MISSING CASES	0
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Y6

MEAN	11.130	STD ERR	0.201	MEDIAN	10.964
MODE	10.500	STD DEV	2.013	VARIANCE	4.054
KURTOSIS	-0.806	SKEWNESS	0.038	RANGE	8.000
MINIMUM	7.000	MAXIMUM	15.000		

VALID CASES	100	MISSING CASES	0
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Y7

MEAN	4.160	STD ERR	0.191	MEDIAN	3.850
MODE	3.000	STD DEV	1.912	VARIANCE	3.656
KURTOSIS	0.083	SKEWNESS	0.443	RANGE	10.000
MINIMUM	0.0	MAXIMUM	10.000		

VALID CASES	100	MISSING CASES	0
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Y8

MEAN	0.730	STD ERR	0.258	MEDIAN	0.217
MODE	0.0	STD DEV	2.581	VARIANCE	6.664
KURTOSIS	0.048	SKEWNESS	0.110	RANGE	13.000
MINIMUM	-6.000	MAXIMUM	7.000		

VALID CASES	100	MISSING CASES	0
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Y9

MEAN	167.565	STD ERR	0.353	MEDIAN	168.083
MODE	169.000	STD DEV	3.532	VARIANCE	12.473
KURTOSIS	-0.308	SKEWNESS	-0.427	RANGE	16.500
MINIMUM	153.000	MAXIMUM	174.500		

VALID CASES	100	MISSING CASES	0
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Y10

MEAN	63.425	STD ERR	0.218	MEDIAN	68.750
MODE	65.000	STD DEV	2.178	VARIANCE	4.744
KURTOSIS	-0.536	SKEWNESS	-0.142	RANGE	9.500
MINIMUM	59.000	MAXIMUM	68.500		

VALID CASES	100	MISSING CASES	0
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Y11

MEAN	57.847	STD ERR	0.243	MEDIAN	57.875
MODE	56.000	STD DEV	2.432	VARIANCE	5.913
KURTOSIS	1.087	SKEWNESS	0.653	RANGE	13.000
MINIMUM	52.250	MAXIMUM	65.250		

VALID CASES	100	MISSING CASES	0
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Y12

MEAN	1.001	STD ERR	0.004	MEDIAN	1.000
MODE	1.000	STD DEV	0.041	VARIANCE	0.002
KURTOSIS	-0.451	SKEWNESS	0.456	RANGE	0.179
MINIMUM	0.930	MAXIMUM	1.109		

VALID CASES	100	MISSING CASES	0
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Y13

MEAN	1.133	STD ERR	0.004	MEDIAN	1.129
MODE	1.105	STD DEV	0.044	VARIANCE	0.002
KURTOSIS	7.814	SKEWNESS	1.509	RANGE	0.318
MINIMUM	1.056	MAXIMUM	1.374		

VALID CASES	100	MISSING CASES	0
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Y14

MEAN	0.843	STD ERR	0.005	MEDIAN	0.829
MODE	0.821	STD DEV	0.052	VARIANCE	0.003
KURTOSIS	0.300	SKEWNESS	0.507	RANGE	0.271
MINIMUM	0.729	MAXIMUM	1.000		

VALID CASES	100	MISSING CASES	0
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## 4. ข้อมูลที่วิเคราะห์ได้จากกลุ่มตัวอย่างทั้งหมด

AGE					
MEAN	18.489	STD ERR	0.124	MEDIAN	18.293
MODE	16.300	STD DEV	1.748	VARIANCE	3.055
KURTOSIS	0.655	SKEWNESS	0.834	RANGE	8.700
MINIMUM	16.000	MAXIMUM	24.700		
VALID CASES	200	MISSING CASES	0		
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Y1					
MEAN	49.612	STD ERR	0.171	MEDIAN	49.786
MODE	50.000	STD DEV	2.422	VARIANCE	5.865
KURTOSIS	0.240	SKEWNESS	0.164	RANGE	14.500
MINIMUM	43.000	MAXIMUM	57.500		
VALID CASES	200	MISSING CASES	0		
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Y2					
MEAN	49.935	STD ERR	0.200	MEDIAN	49.705
MODE	49.500	STD DEV	2.822	VARIANCE	7.966
KURTOSIS	0.088	SKEWNESS	0.245	RANGE	15.500
MINIMUM	43.000	MAXIMUM	58.500		
VALID CASES	200	MISSING CASES	0		
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Y3					
MEAN	65.852	STD ERR	0.264	MEDIAN	65.607
MODE	67.000	STD DEV	3.727	VARIANCE	13.891
KURTOSIS	0.088	SKEWNESS	0.365	RANGE	19.500
MINIMUM	58.000	MAXIMUM	77.500		
VALID CASES	200	MISSING CASES	0		
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Y4					
MEAN	45.725	STD ERR	0.267	MEDIAN	45.708
MODE	44.000	STD DEV	3.770	VARIANCE	14.213
KURTOSIS	-0.098	SKEWNESS	0.234	RANGE	21.000
MINIMUM	37.000	MAXIMUM	58.000		
VALID CASES	200	MISSING CASES	0		
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Y5					
MEAN	55.020	STD ERR	0.239	MEDIAN	54.643
MODE	54.000	STD DEV	3.383	VARIANCE	11.444
KURTOSIS	-0.115	SKEWNESS	0.253	RANGE	19.000
MINIMUM	47.000	MAXIMUM	66.000		
VALID CASES	200	MISSING CASES	0		
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Y6					
MEAN	11.220	STD ERR	0.139	MEDIAN	11.066
MODE	10.000	STD DEV	1.962	VARIANCE	3.848
KURTOSIS	-0.391	SKEWNESS	0.184	RANGE	10.000
MINIMUM	6.500	MAXIMUM	16.500		
VALID CASES	200	MISSING CASES	0		
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Y7					
MEAN	4.317	STD ERR	0.131	MEDIAN	4.090
MODE	3.000	STD DEV	1.849	VARIANCE	3.418
KURTOSIS	0.036	SKEWNESS	0.428	RANGE	10.000
MINIMUM	0.0	MAXIMUM	10.000		
VALID CASES	200	MISSING CASES	0		
-----					
Y8					
MEAN	1.205	STD ERR	0.177	MEDIAN	0.932
MODE	0.0	STD DEV	2.505	VARIANCE	6.277
KURTOSIS	-0.227	SKEWNESS	0.109	RANGE	13.000
MINIMUM	-6.000	MAXIMUM	7.000		
VALID CASES	200	MISSING CASES	0		
-----					
Y9					
MEAN	167.197	STD ERR	0.247	MEDIAN	167.156
MODE	167.000	STD DEV	3.488	VARIANCE	12.168
KURTOSIS	-0.452	SKEWNESS	-0.128	RANGE	17.000
MINIMUM	158.000	MAXIMUM	175.000		
VALID CASES	200	MISSING CASES	0		
-----					

## Y10

MEAN	63.689	STD ERR	0.166	MEDIAN	63.708
MODE	65.009	STD DEV	2.352	VARIANCE	5.530
KURTOSIS	-0.477	SKEWNESS	0.044	RANGE	11.500
MINIMUM	58.000	MAXIMUM	69.500		

VALID CASES	200	MISSING CASES	0
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## Y11

MEAN	55.789	STD ERR	0.218	MEDIAN	55.542
MODE	56.000	STD DEV	3.078	VARIANCE	9.477
KURTOSIS	0.094	SKEWNESS	0.377	RANGE	16.750
MINIMUM	48.500	MAXIMUM	65.250		

VALID CASES	200	MISSING CASES	0
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## Y12

MEAN	0.995	STD ERR	0.003	MEDIAN	0.990
MODE	1.000	STD DEV	0.041	VARIANCE	0.002
KURTOSIS	-0.386	SKEWNESS	0.396	RANGE	0.194
MINIMUM	0.915	MAXIMUM	1.109		

VALID CASES	200	MISSING CASES	0
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## Y13

MEAN	1.125	STD ERR	0.003	MEDIAN	1.123
MODE	1.120	STD DEV	0.040	VARIANCE	0.002
KURTOSIS	6.382	SKEWNESS	1.185	RANGE	0.322
MINIMUM	1.052	MAXIMUM	1.374		

VALID CASES	200	MISSING CASES	0
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## Y14

MEAN	0.837	STD ERR	0.003	MEDIAN	0.828
MODE	0.821	STD DEV	0.049	VARIANCE	0.002
KURTOSIS	0.116	SKEWNESS	0.394	RANGE	0.271
MINIMUM	0.729	MAXIMUM	1.000		

VALID CASES	200	MISSING CASES	0
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5. ทดสอบความแตกต่างระหว่างเพศหญิง (Group 1) กับ เพศชาย (Group 2) โดยใช้ t-test

----- T - T E S T -----														
GROUP 1 - SEX	EQ	0.												
GROUP 2 - SEX	EQ	1.												
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	* POOLED VARIANCE ESTIMATE *					* SEPARATE VARIANCE ESTIMATE *				
					* F VALUE	* 2-TAIL PROB.	* T VALUE	* DEGREES OF FREEDOM	* 2-TAIL PROB.	* T VALUE	* DEGREES OF FREEDOM	* 2-TAIL PROB.		
Y6														
GROUP 1	100	11.3100	1.915	0.191	1.11	0.518	0.65	198	0.518	0.65	197.50	0.518		
GROUP 2	100	11.1300	2.013	0.201										
Y7														
GROUP 1	100	4.4750	1.779	0.178	1.16	0.473	1.21	198	0.229	1.21	196.97	0.229		
GROUP 2	100	4.1600	1.912	0.191										
Y8														
GROUP 1	100	1.6800	2.345	0.234	1.21	0.340	2.72	198	0.007	2.72	196.20	0.007		
GROUP 2	100	0.7300	2.581	0.258										
Y9														
GROUP 1	100	166.8300	3.416	0.342	1.06	0.758	-1.50	198	0.136	-1.50	197.81	0.136		
GROUP 2	100	167.5650	3.523	0.352										

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GROUP 1 - SEX EQ 0.  
GROUP 2 - SEX EQ 1.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	* POOLED VARIANCE ESTIMATE *			* SEPARATE VARIANCE ESTIMATE *						
					F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.		
Y10														
GROUP 1	100	63.9350	2.498	0.250										
GROUP 2	100	63.4250	2.178	0.218	1.32	0.174	1.54	198	0.125	1.54	194.39	0.125		
Y12														
GROUP 1	100	0.9889	0.040	0.004										
GROUP 2	100	1.0006	0.041	0.004	1.03	0.389	-2.06	198	0.041	-2.06	197.96	0.041		
Y13														
GROUP 1	100	1.1163	0.034	0.003										
GROUP 2	100	1.1333	0.044	0.004	1.71	0.008	-3.09	198	0.002	-3.09	185.39	0.002		
Y14														
GROUP 1	100	0.8306	0.045	0.005										
GROUP 2	100	0.8427	0.052	0.005	1.54	0.145	-1.75	198	0.082	-1.75	193.87	0.082		

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### ประวัติผู้เขียน

นางสาว จินตนา ศิริชุมพันธ์ เกิดเมื่อวันที่ 9 พฤศจิกายน พ.ศ. 2499 ที่กรุงเทพมหานคร สำเร็จการศึกษารัทยาศาสตร์บัณฑิต (วิทยาศาสตร์การแพทย์) และทันตแพทยศาสตรบัณฑิต เกียรตินิยมอันดับ 1 จากคณะทันตแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย ในปี พ.ศ. 2522 และ 2524 ตามลำดับ เข้าทำงานเป็นทันตแพทย์ฝึกหัดที่คณะทันตแพทยศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย 1 ปี จึงเข้าศึกษาต่อในสาขาวิชาทันตกรรมจัดฟัน ภาควิชาทันตกรรมจัดฟัน บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย ในปีการศึกษา 2525

ศูนย์วิทยพัรพยากร  
จุฬาลงกรณ์มหาวิทยาลัย