

## Clinical relevance of the theoretical and practical dental admission test at the medical university of Innsbruck; Austria

**Language:** English

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### Introduction

Since 2000 the selection of dental students at the Medical University of Innsbruck, Austria is performed by the theoretical and practical dental admission test [1]. 25 students can take part in the dental studies each year [2]. The number of applicants for the dental curriculum exceeds the number of available positions. The decisions about who will be successful in dental school performance becomes necessarily important [3, 4]. The aim of this investigation was to examine the suitability of the selection procedure for its clinical relevance.

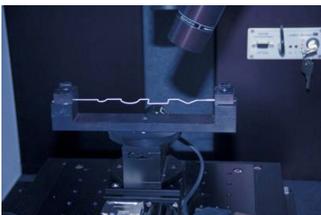
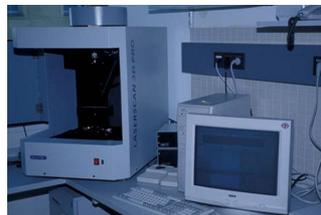
### Material and Methods

The dental admission test contains one theoretical and 5 practical tests to assess the fine motor skills and spatial ability. The tests are made anonymous and evaluated by Laserscan 3D Pro (manufactured by Willitec, Munich, Germany) and the surface roughness is measured by Talysurf (manufactured by Taylor Hobsen Ltd, Leicester, England).

#### 1. Waxing Test



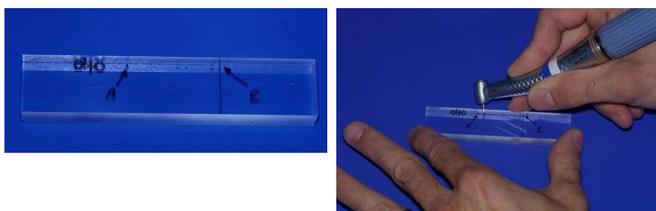
#### 2. Bending wire test



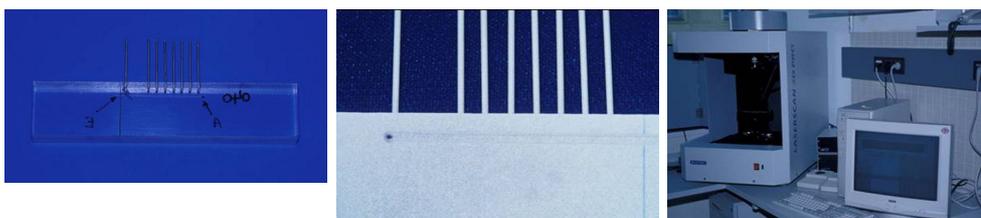
#### 3. Smoothing and polishing the surface of an acrylic block



#### 4. Milling a defined line with a diamond bur



#### 5. Drilling parallel holes



A total of 5 complete classes (2001-2005) of dental students (97: 43 female, 54 male) were retrospectively reviewed in this study. The relationship between the results of the dental admission test, the student's performance in the first clinical year (A), gender, studying in regular study period, drop off and previous academic degree were compared.

#### Lecture

Dental Anatomy	Morphological characteristics -didactic and laboratory components
Restorative Dentistry Amalgam	Tooth preparation, restoration with simulated cases in laboratory exercises
Restorative Dentistry Resin Composite	Tooth preparation, restoration with simulated cases in laboratory exercises
Endodontics	Clinical aspects and laboratory exercises
Occlusion	Static and dynamic occlusion, dental articular and functional waxing
Prosthodontics	Removeable complete dentures lecture and laboratory exercise

#### Table A

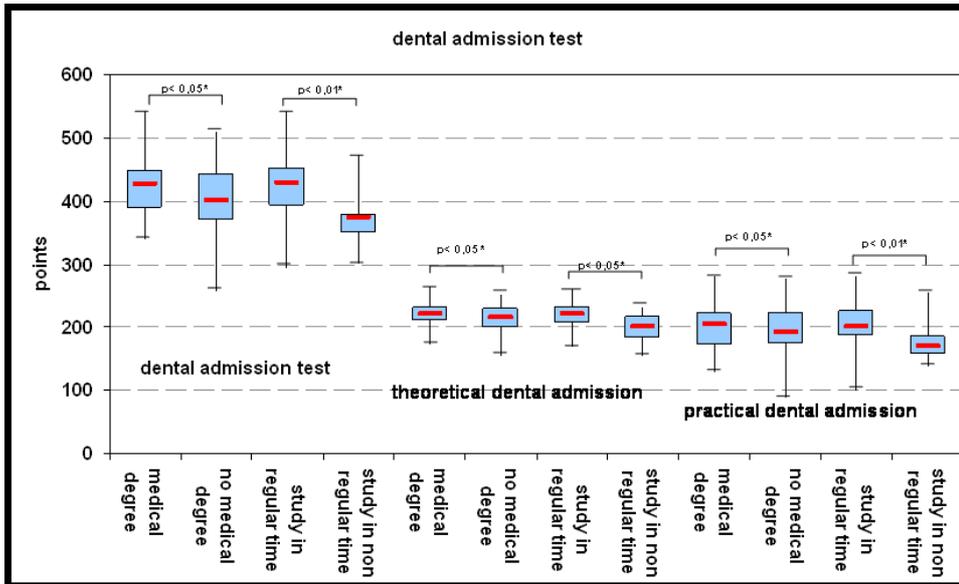
The data were tabulated in the SPSS programme (SPSS Inc., version 13.0). The Mann-Whitney U-Test was used to analyse the association between gender, regular study period, medical degree and the admission test. Pearson's correlation coefficient (r) was used to analyse the correlation between admission test and the other parameters. The level of significance was established at 5%.

### Results

Year	Students	Male	Female	Medical degree	Regular Study Period	Drop Out after first clinical year
2001	17	12	5	7	16	0
2002	18	14	4	8	13	0
2003	23	12	11	9	17	2
2004	14	5	9	5	14	0
2005	25	14	11	5	25	1
total	97	54 (55,7%)	43 (44,3%)	34 (35,1%)	85 (87,6%)	3 (3,1%)

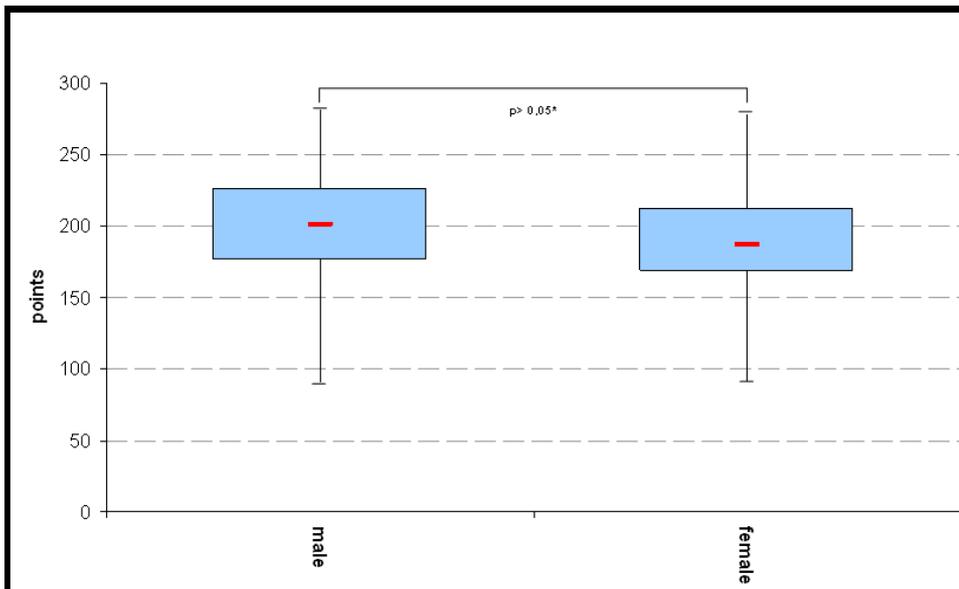
#### Table B

Of these 97 students, three changed University course, failed or dropped out after first clinical year (B). Students with medical degree and students in regular study period were significantly better performers in the dental admission test (C).

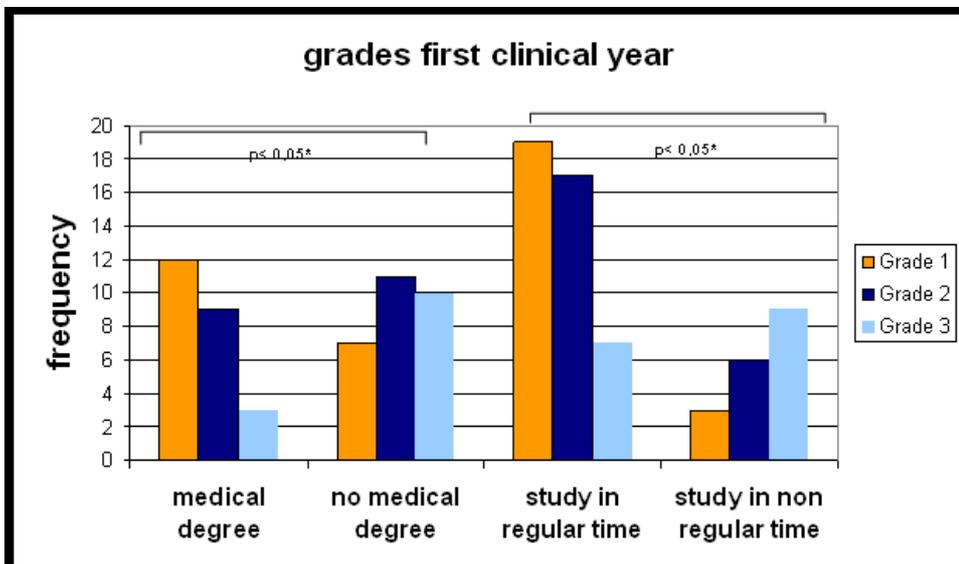


Picture C

No significance was found between male and female students in the dental admission test (D). Students with medical degree and students in regular study period showed significantly better grades in the first clinical year (E).



Picture D



Picture E

## Conclusions

This investigation has found a significant correlation between the dental admission test and the clinical performance of the students. The test should decrease drop offs, higher overall grade averages and selectively exclude applicants who will be unsuccessful in the practical courses. The current selection procedure seems to be a good predictor for the success of the dental students in the first clinical year in Innsbruck.

## Literature

1. Verlautbarung der Änderung des Studienplans vom 27. Juni 2003 für das Diplomstudium der Zahnmedizin an der Medizinischen Universität Innsbruck (2003). Mitteilungsblatt der Leopold-Franzens-Universität Innsbruck vom 27. Juni 2003.
2. Innsbruck L-F-U (2003). Studienplan für das Diplomstudium der Zahnmedizin an der Medizinischen Universität Innsbruck. Mitteilungsblatt der Leopold-Franzens-Universität Innsbruck vom 27. Juni 2003 35. Stück (Nr. 311).
3. Hoad-Reddick G, Macfarlane TV (1999). An analysis of an admissions system: can performance in the first year of the dental course be predicted? Br Dent J 186(3):138-42.
4. Kreit L (1971). The prediction of student success in dental schools. Social sciences and dentistry:97-119.

*This Poster was submitted by Dr. Ulrike Stephanie Beier.*

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# CLINICAL RELEVANCE OF THE THEORETICAL AND PRACTICAL DENTAL ADMISSION TEST AT THE MEDICAL UNIVERSITY OF INNSBRUCK; AUSTRIA



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Medical University of Innsbruck, Dental School, Chairman: Univ.-Prof. DDr. Ingrid Grunert

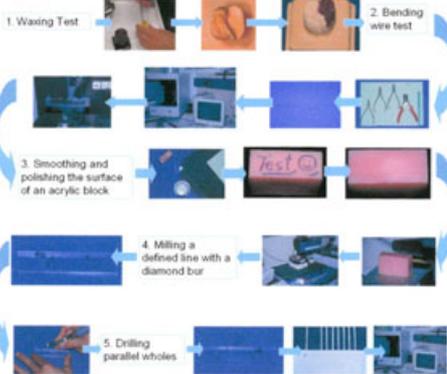


## Background and Aims

Since 2000 the selection of dental students at the Medical University of Innsbruck, Austria is performed by the theoretical and practical dental admission test [1]. 25 students can take part in the dental studies each year [2]. The number of applicants for the dental curriculum exceeds the number of available positions. The decisions about who will be successful in dental school performance becomes necessarily important [3, 4]. The aim of this investigation was to examine the suitability of the selection procedure for its clinical relevance.

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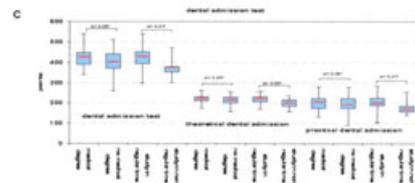
Lectures	
Oral Anatomy	Morphological (orthodontic)-diagnostic and laboratory components
Restorative Dentistry: Amalgam	Tooth preparation, restoration with simulated cases in laboratory exercises
Restorative Dentistry: Resin Composites	Tooth preparation, restoration with simulated cases in laboratory exercises
Endodontics	Clinical aspects and laboratory exercises
Occlusion	Static and dynamic occlusion, dental articulation and functional loading
Prosthodontics	Removable complete dentures lecture and laboratory exercise

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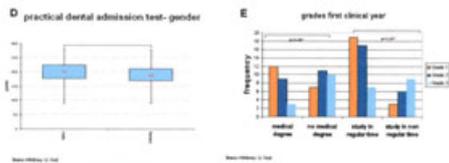
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## References

[1] Veröffentlichung der Änderung des Studienplans vom 27. Juni 2005 für das Diplomstudium der Zahnmedizin an der Medizinischen Universität Innsbruck (2003), Mitteilungsblatt der Leopold-Franzens-Universität Innsbruck vom 27. Juni 2005.  
 [2] Innsbruck L-F-U (2003), Studienplan für das Diplomstudium der Zahnmedizin an der Medizinischen Universität Innsbruck, Mitteilungsblatt der Leopold-Franzens-Universität Innsbruck vom 27. Juni 2003, 36. Stück (S. 131).  
 [3] Heuck-Radlisch G, Macfarlane TV (1998), An analysis of an admissions system: can performance in the first year of the dental course be predicted? Br Dent J 196(3): 138-42.  
 [4] Kroll L (1971), The prediction of student success in dental schools, Social sciences and dentistry 97-119.