

# DENTAL STUDENT INVOLVING IN SELF ASSESSMENT IN PRECLINICAL DENTAL EDUCATION AS LEARNING MODALITY

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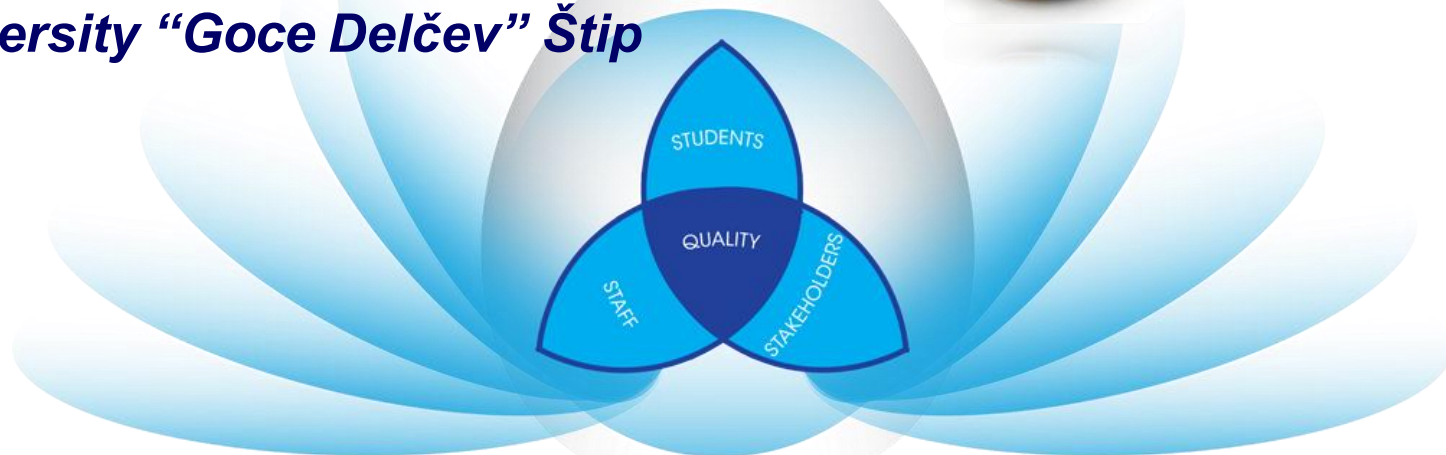
# DENTAL STUDENT INVOLVING IN SELF ASSESSMENT IN PRECLINICAL DENTAL EDUCATION AS LEARNING MODALITY

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## **DENTAL STUDENT INVOLVING IN SELF ASSESSMENT IN PRECLINICAL DENTAL EDUCATION AS LEARNING MODALITY**



***The dental school curriculum places significant emphasis on the acquisition of technical skills resulting at the end of dental training, a competent dentist. The goal of dental education is to prepare future clinicians for a general dental practice.***



## **DENTAL STUDENT INVOLVING IN SELF ASSESSMENT IN PRECLINICAL DENTAL EDUCATION AS LEARNING MODALITY**



***The goal of dental education is to prepare future clinicians for a general dental practice. The curriculum delivery utilizes learning methodology that includes lectures, pre-clinical laboratories, problem-based learning, clinical internships and externships.***



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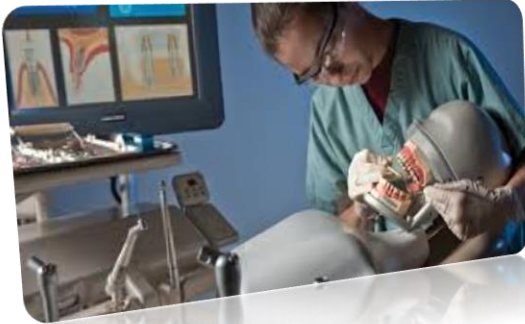


***Students become familiar with this didactic approach based on the lectures and the “signing off” of student work (Manogue et al 1999).***

***To shift from the didactic approach to more of a problem-centered approach involving independent learning, self-assessment and reflection is difficult for students to do (Manogue et al 1999).***



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***The introduction of a problem-centered approach earlier in the dental curriculum can be beneficial from an educational point of view.***

***Self-assessment as an educational modality has been used in various health professional programs as a means to ensure competence (Migrom, 1985 & Asadoorian & Batty, 2005).***

***Throughout one's professional career, health professionals must continually assess their base knowledge, skills and performance and most importantly, act upon these assessments (Gordon, 1992).***

## **DENTAL STUDENT INVOLVING IN SELF ASSESSMENT IN PRECLINICAL DENTAL EDUCATION AS LEARNING MODALITY**



**Accurate self-assessment is a pillar towards effective learning that involves two key elements:**

- **to understand the given standards and criteria.**
- **the ability to accurately judge whether one's work meets the former.**

**If both of these key elements are fulfilled, only then can evidence support that self-assessment methodology accelerates the learning of novices (Boshuizer et al 1990) .**



## **DENTAL STUDENT INVOLVING IN SELF ASSESSMENT IN PRECLINICAL DENTAL EDUCATION AS LEARNING MODALITY**



***Self-assessment is based on two underlying principles:***

- ✓ self-reflections firstly lead to deeper understanding***
- ✓ collaborative assessment with instructors leads to more accurate self-assessment (Geissler, 1972).***

***Self-assessment has been shown to increase student motivation to learn and shifting of the mindset from “how have I performed to how I can get better” (Epstein & Northrop, 1994).***





## **DENTAL STUDENT INVOLVING IN SELF ASSESSMENT IN PRECLINICAL DENTAL EDUCATION AS LEARNING MODALITY**



***Students must be trained to critically evaluate their work through self-evaluation.***

***Positive correlations between pre-clinical performance and self-evaluation (Koenigsberg et al 1979).***

***From an instructor's point of view, discrepancies can serve as an educational diagnosis to inherent problems within the student's abilities to self-assess (Kunovich, 1987).***



## **DENTAL STUDENT INVOLVING IN SELF ASSESSMENT IN PRECLINICAL DENTAL EDUCATION AS LEARNING MODALITY**



***Theoretical foundations of self-assessment have not stemmed from a single theory, but multiple theories all contributing to the overall theory.***

***AIM***

***The aim of our study was to show whether dental students are able to critically evaluate their work and whether their abilities to self-assess improved over the study.***



## **Materials & Methods**



**The study examined whether there is a positive correlation between student selfevaluation scores and instructor scores in the second year of Preclinical Cariology and Oral health, courses at the Dental Medicine, Faculty of Medical Sciences, at the University “Goce Delčev”, Štip.**



## **Materials & Methods**



**Thirty six (36) students of Dental Medicine from the fourth semester in the academic 2013/2014 year participated in this study.**

**Criteria based evaluation forms were created for each of the operative dentistry procedures; preparation, restoration, and finishing of Amalgam procedures.**



**At the end of each practical examination, students were given ten minutes to complete the Criteria-based self-evaluation form and assign themselves a mark.**

## **Materials & Methods**



***Thirty six (36) students of Dental Medicine from the fourth semester in the academic 2013/2014 year participated in this study.***

***One faculty member blindly evaluated and assigned a mark for the practical exercises using the same evaluation form without the knowledge of the students' self-evaluation.***

***Marks were awarded on a 1-4 scale based on mark guidelines within the marking rubric (Table 1).***



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## Materials & Methods



**Table 1: Marking Rubric for Preclinical Cariology and Oral health**

<b>Grade</b>	<b>SKILL LEVEL</b>
<b>4</b>	<b><i>Excellent or superior result</i></b>
<b>3</b>	<b><i>An acceptable or satisfactory result</i></b>
<b>2</b>	<b><i>An unacceptable result; significant modifications are required to achieve an acceptable result</i></b>
<b>1</b>	<b><i>An unacceptable result; Errors are not correctable by modification; procedure must be redone.</i></b>



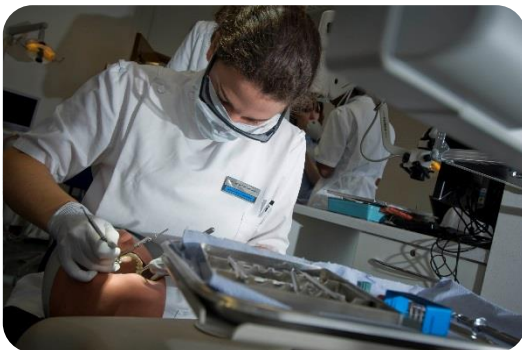
# **DENTAL STUDENT INVOLVING IN SELF ASSESSMENT IN PRECLINICAL DENTAL EDUCATION AS LEARNING MODALITY**

## **Results**



***The mean evaluation scores for both student self-evaluation and instructor were calculated.***

***The results concerning self-evaluation among second year dental students in preclinical procedures who rated themselves regularly throughout the course year exhibited some expected outcomes.***



# DENTAL STUDENT INVOLVING IN SELF ASSESSMENT IN PRECLINICAL DENTAL EDUCATION AS LEARNING MODALITY

## Results



QUESTIONNAIRE	Preclinical Cariology		Oral Health	
Excellent or superior result	83.92%	$(\bar{x}=3.19)$	89.47%	$(\bar{x}=3.47)$
An acceptable or satisfactory result	82.65%	$(\bar{x}=3.13)$	91.35%	$(\bar{x}=3.56)$





## **Conclusion**



***The results concerning self-evaluation among second year dental students in preclinical procedures who rated themselves regularly throughout the course year exhibited some expected outcomes as well as some incongruities.***

***The students' self-evaluation for the procedures did improve with experience, as there was less difference between the student and instructor means.***

***Dental pre-clinical procedures are difficult for beginning dental students.***



# Thank You for the Attention

