



## Embedding in Chinese Curricula and Future use



Co-funded by the  
Erasmus+ Programme  
of the European Union

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors and the Commission cannot be held responsible for any use which may be made of the information contained therein.



# Experiences in teaching EDEMTET courses and future plans

Guangxi Medical University

April 16<sup>th</sup>, 2024



Co-funded by the  
Erasmus+ Programme  
of the European Union

Qin Yuan



# Experiences in teaching EDEMTET courses



# Experiences in teaching EDEMTET courses



## EDEMTET in Guangxi Medical university



Evidence-based Practice1-2024

[Go to course](#)



Clinical Reasoning1-2024

[Go to course](#)



Evidence-based Practice2-2024

[Go to course](#)



Clinical Reasoning2-2024

[Go to course](#)



Exit test 2024

[Go to course](#)

courses	Curricula time	Hours	Credit
Evidence Based Dentistry 循证口腔医学	2023.9-2024.1	16	1.0
Case-based Oral Medicine 口腔内科学临床案例课	2024.9-2025.1	16	1.0
Case-based Orthodontics 口腔正畸科临床案例课	2024.9-2025.1	16	1.0
Case-based Prothodontics 口腔修复学临床案例课	2024.9-2025.1	16	1.0
Case-based Oral maxillofacial surgery 口腔颌面外科临床案例课	2024.9-2025.1	16	1.0
Multi-disciplinary Case Discussion 多学科联合病例讨论课	2024.9-2025.1	16	1.0





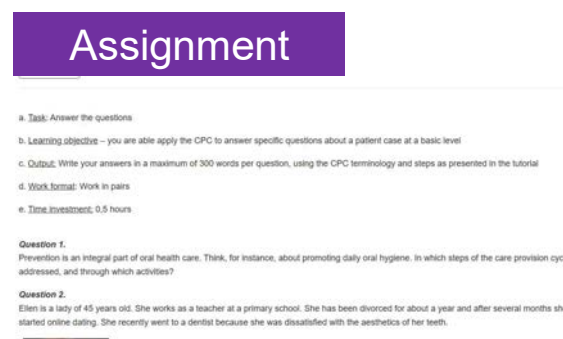
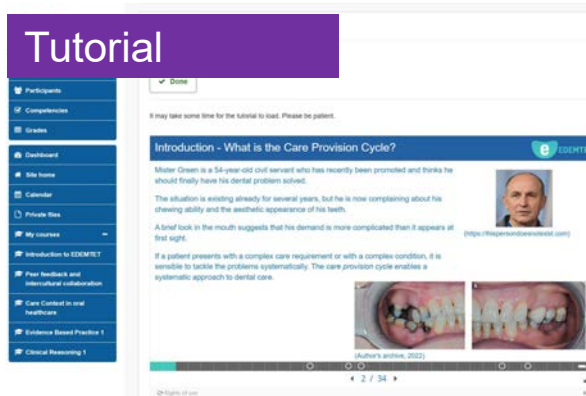
# Experiences in teaching EDEMTET courses



## EDEMTET in Guangxi Medical university

courses	Curricula time	Hours	Credit
Evidence Based Dentistry 循证口腔医学	2023.9-2024.1	16	1.0

**1st year Professional master students**  
**34 students EBP1 in September and October 2023**



Patient cases	
age	32
gender	Female
regular attender	Regular attender
dental anxiety	Low or none
reason for attendance	Regular dental check-up
Social background and context: Occupation	Volunteer in disability care.
Social background and context: Hobby/Sports	Unknown.
Social background and context: Family context	Single mom with two young daughters.
Social background and context: Insurance status	Under administration, thus a financial constraint.
Daily stress level (self reported)	6



# Experiences in teaching EDEMTET courses



## EDEMTET in Guangxi Medical university

### ● Teaching schedule

日期 Date	学时 Period	授课类型 Type of lecture	授课内容 Content	教师 Teachers	教学对象 Student
9.18	2	理论	绪论 :循证口腔医学简介 Introduction to EBP	李晓婕、覃媛	2023级口腔医学 专业学位硕士研究生
9.26	2	理论	临床科研设计(Study designs in clinical medicine and dentistry research)	王家烯	
10.8	2	理论	循证医学实践步骤(Evidence Based Practice,EBP)	刘露	
10.11	2	理论	医学文献批判性评估 ( Critical Appraisal Topics,CAT)	唐弈遥	
10.17	4	实验	EBP实践操作 Case report by teachers	李晓婕、覃媛	
10.24	4	实验	病例作业汇报 Case report by students	李晓婕、覃媛、王家烯、刘露、唐弈遥	

Theoretical lessons

Practice lessons



# Experiences in teaching EDEMTET courses



## EDEMTET in Guangxi Medical university

### ● Teaching Method

#### Online Self-learning



Students learn the tutorial online before class.

#### In Class: Teacher-guided session (offline)



Teachers give the lessons based on the platform, combined with textbook and videos.

#### Online Assignments



Students finish online assignments assigned by teachers.

#### In Class: Teacher-guided session (offline)



Teachers give an example of making a case analysis report.

#### In Class: Feedback



Student groups use EDEMTET content for case-based discussion and receive immediate feedback from teachers.

## Online & Offline Teaching

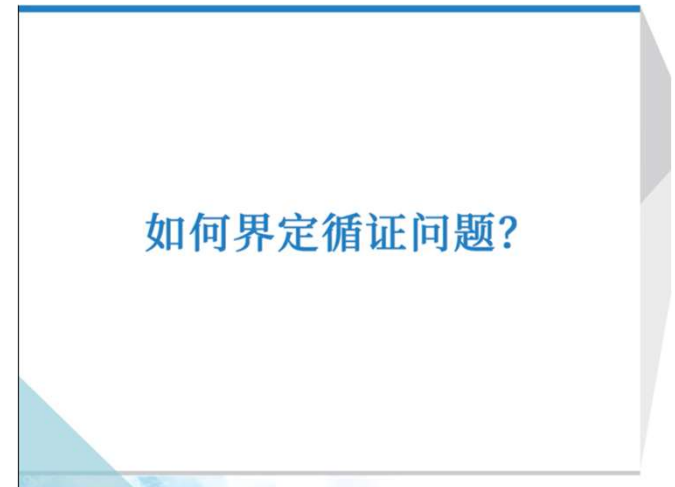


# Experiences in teaching EDEMTET courses



## EDEMTET in Guangxi Medical university

- **Teaching Method** : Based on this platform, combined with textbooks and related videos



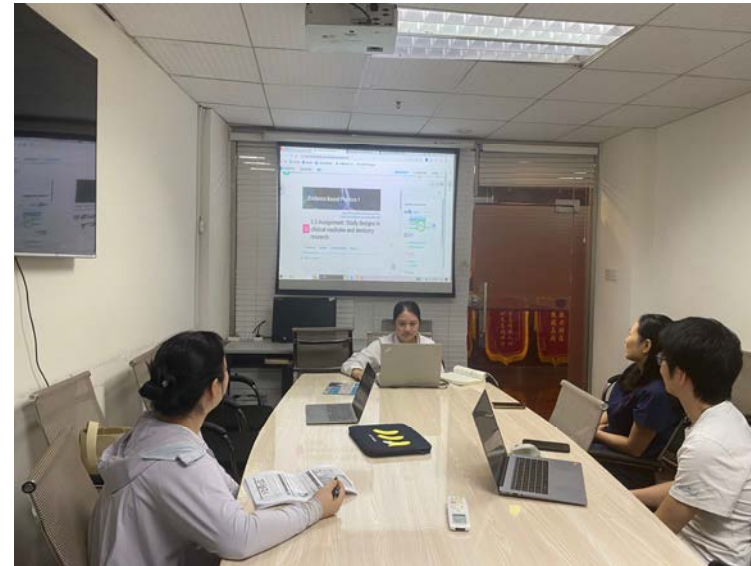


# Experiences in teaching EDEMTET courses



## EDEMTET in Guangxi Medical university

- **Group lesson preparation**



**Before each class, teachers prepared lessons together and discussed the key and difficult points of teaching, teaching methods and assignments.**



# Experiences in teaching EDEMTET courses



## EDEMTET in Guangxi Medical university

- **Case analysis report**



**In the last class, each group will report on the case analysis.**

**All teachers participated and give the feedback in class.**





## EDEMTET in Guangxi Medical university

### ● Teaching feedback questionnaire

2023级口腔专业型硕士《循证口腔医学》教学反馈  
调查问卷

亲爱的同学，为了了解《循证口腔医学》的教学效果，改进我们的教学方法，请您完成以下问题。谢谢！

\*1. 性别：\_\_\_\_ 年龄：\_\_\_\_ 专业：\_\_\_\_ 本科毕业院校：\_\_\_\_ [填空题]

\*2. 您课前是否学习或了解过以下课程（多选）：【多选题】

☐ 《循证医学》  
☐ 《临床流行病学》  
☐ 《医学统计学》  
☐ 《医学文献检索》  
☐ 其它相关课程

The teaching feedback  
questionnaire of "evidence-  
based dentistry" for 2023  
master student of Stomatology



Teaching feedback questionnaire was conducted on the final lesson.





## EDEMTET in Guangxi Medical university

- **Implementation Assurance: staff availability**

### Management

Teaching steering committee: 4 college leaders(Former dean Chen Wenxia, Dean Liao Hongbing, Vice dean Liang Feixin, Vice dean Tao Renchuan)

### Administration

Teaching administrative department: 2 office director (Xu Ying&Chen Jin)

### Teachers

Teaching group: 1 Course manager (Li Xiaojie) , 1 Course secretary (Qin Yuan)  
3 teachers(Wang Jiayi, Tang Yiyao, Liu Lu)

### Technical support

1 staff (Gan Youhong)



- Evidence Based Dentistry have been included in the “**Program for Master's Professional Degree in Stomatology of Guangxi Medical University**”, and has been set as compulsory courses.

**What went well ?**

**What could be improved?**



# What went well?



## Useful functionalities

### Case database

The screenshot shows the EDEM TET Case database interface. The left sidebar contains a menu with 'General', 'Patient case filters/view...', 'Patientcases sandbox', 'Assignments', and 'Tutorials'. The 'Patientcases sandbox' option is selected. The main content area displays the 'Patientcases sandbox' page, which includes a 'Mark as done' button, a 'patient case ID' input field, and a 'Dental area' section with checkboxes for various dental specialties: Cariology, Oral surgery, Paediatrics, Orthodontics, Periodontology, Oral facial pain, Implantology, Dental radiology, Endodontics, and Gerodontology.

### Assignments

The screenshot shows the EDEM TET Assignments interface. The left sidebar contains a menu with '2.2: Assignment: intro...', '3. Study designs', '3.1 Study Designs in Clin...', '3.2 Assignment: Study d...', '3.3 Assignment: Researc...', '4. Evidence-based Practi...', '4.1 Evidence-based Prac...', '4.2 Assignment: EBP ste...', '4.3 Assignment: EBP ste...', '5. Critical Appraisal of a T...', '5.1 An introduction to Cri...', '5.1 Tutorial: An introduct...', '5.2 Assignment: An intro...', and '6. Integrative patient cas...'. The '4.2 Assignment: EBP ste...' option is selected. The main content area displays the 'Evidence-based Practice 1' page, which includes a 'Mark as done' button, a 'Back to course' link, and a section titled '4.2 Assignment: EBP step by step - a toothpaste smile'. The assignment details include learning objectives and a task to apply EBP steps to a situation involving a toothpaste smile.



## 1.EDEMTET in Guangxi Medical university (in the current academic year)

### ● Collaboration in Group Assignments



Collaboration **in pairs** and **in groups**(5-6 students) was seen as convenient and beneficial to the learning process by all participants.

第 8 题 您更喜欢用哪一种方式完成病例分析作业？ [单选题]

Which form do you prefer to finish the case analysis assignment?

选项	小计	比例
单独完成	6	<div><div></div></div> 18.18%
小组合作完成	27	<div><div></div></div> 81.82%
本题有效填写人次	33	

According to the feedback of students and the questionnaire, Students like this kind of class and examination form.

# What could be improved?



1. Is it possible to design a questionnaire for teachers (as more teachers will join in the future, we can get different feedback from teachers)?
2. The grouping setup is somewhat complicated. Whether it can be simplified, or make a guide manual

## **Future plans in using EDEM TET courses and materials**



# Further teaching plan in using the eCampus



## Improvements to the EBP curriculum

### Target Group

Professional master students + Resident training students

### Teaching Methods

According to the feedback of students, the class hour will be adjusted.

### Teaching materials

Based on the feedback of students and the teaching experience in the last year, the teaching materials of difficult content will be supplemented

# Further teaching plan in using the eCampus



## Case analysis lessons for Resident training students

In the second year of residency study, eCampus will be integrated into the case analysis lessons of each residency rotation department



# Further teaching plan in using the eCampus



## Further use in ASEAN students

### 教育部学位与研究生教育发展中心

学位中心函〔2024〕8号

#### 关于反馈 2023 年度主题案例立项结果的函

广西医科大学:

2023 年 12 月,教育部学位与研究生教育发展中心面向全国研究生培养单位开展主题案例征集工作,扎根中国大地,聚焦时代热点,汇聚各方力量,开发具有时代性、引领性、学理性、创新性的高质量案例。经过“单位审核推荐”“专家分组评议”“案例专家委审核”三级评议审核及结果公示,你校共有 2 项选题入围,其中“区域协调发展”主题 1 项,“走出去”主题 1 项,详细清单附后。

项目将于 2024 年 7 月开展中期交流,10 月启动结项验收,具体安排另行通知。请组织并支持各首席专家团队推动项目实施,产出高质量案例成果。

感谢对中国专业学位案例建设事业的支持!

附件:2023 年度主题案例立项结果清单

教育部学位与研究生教育发展中心

2024 年 3 月 25 日

### Center for Degree and Graduate Education Development, Ministry of Education 2023 Theme Case

附件

#### 2023 年度主题案例立项结果清单

(按主题方向及首席专家姓氏笔画排序)

单位名称:广西医科大学

序号	项目编号	首席专家	主题方向	选题名称
1	ZT-231059801	张宏亮	区域协调发展	新医科背景下基于 EBP-PICOS 方法构建临床药学专业学位研究生实践培养模式探索
2	ZT-231059802	廖红兵	走出去	以国际牙科教育电子校园-EDEM TET 提升东盟国家口腔医学研究生口腔修复学临床思维和循证医学能力的探索

Application of EDEM TET in improving the clinical thinking and evidence-based medicine ability of prosthodontics among dental graduate students in ASEAN countries

1. There are 23 international students attending this meeting. They are from Vietnam, Nepal, India, Peru, Myanmar, Laos and Cambodia.

2. We plan to enroll ASEAN students in subsequent teaching plan and let them study together with Chinese students.

# Further teaching plan in using the eCampus



## Case analysis class for 5<sup>th</sup> grade undergraduate

1. During the internship stage of the fifth year of undergraduate students, there are regular small lectures on case analysis
2. eCampus related content and case database will be used to combine with the original case analysis course

### Tutorials

This screenshot shows the 'Clinical Reasoning 1' course page on eCampus. The left sidebar contains a navigation menu with sections like '1. Course introduction', '2. Introduction to Clinical Reasoning', and '3. Analysis of patient data'. The main content area features a header image with the text 'Clinical Reasoning 1' and a list of course topics. Below this, the '1. Course introduction' section is expanded, showing a 'What you will learn' subsection with a brief description of the course's focus on clinical reasoning in oral healthcare.

### Patientcases sandbox

This screenshot displays the 'Patientcases sandbox' page. It includes a search bar at the top and a sidebar with navigation options like 'General', 'Patient case filters/view...', and 'Assignments'. The main area is titled 'Patientcases sandbox' and features a 'Mark as done' button. Below this, there is a section for 'Dental area' with a grid of checkboxes for various dental specialties, including Cariology, Oral surgery, Paediatrics, Orthodontics, Periodontology, Oral facial pain, Implantology, Dental radiology, Endodontics, and Gerodontology.

# Further teaching plan in using the eCampus



## Further use in combination with the smart classroom in the engineering center

We are building a dental smart classroom. The smart classroom aims to apply "virtual simulation technology" in the experimental teaching of various subjects. There is one virtual patient case database and one situation clinical thinking test and teaching system.

### Dental virtual patient case database



### Situational clinical thinking test and teaching system



eCampus has case database based on real cases and it is designed to develop clinical thinking skills.

We plan to combine the two system in future teaching.









多学科团队合作学习和  
循证医学为基础制定治  
疗计划的牙科教育数字  
校园项目

eCampus for Dental Education  
supporting multidisciplinary  
team-based learning and  
evidence-based treatment planning



Co-funded by the  
Erasmus+ Programme  
of the European Union

# THANKYOU







多学科团队合作学习和  
循证医学为基础制定治  
疗计划的牙科教育数字  
校园项目

eCampus for Dental Education  
supporting multidisciplinary  
team-based learning and  
evidence-based treatment planning

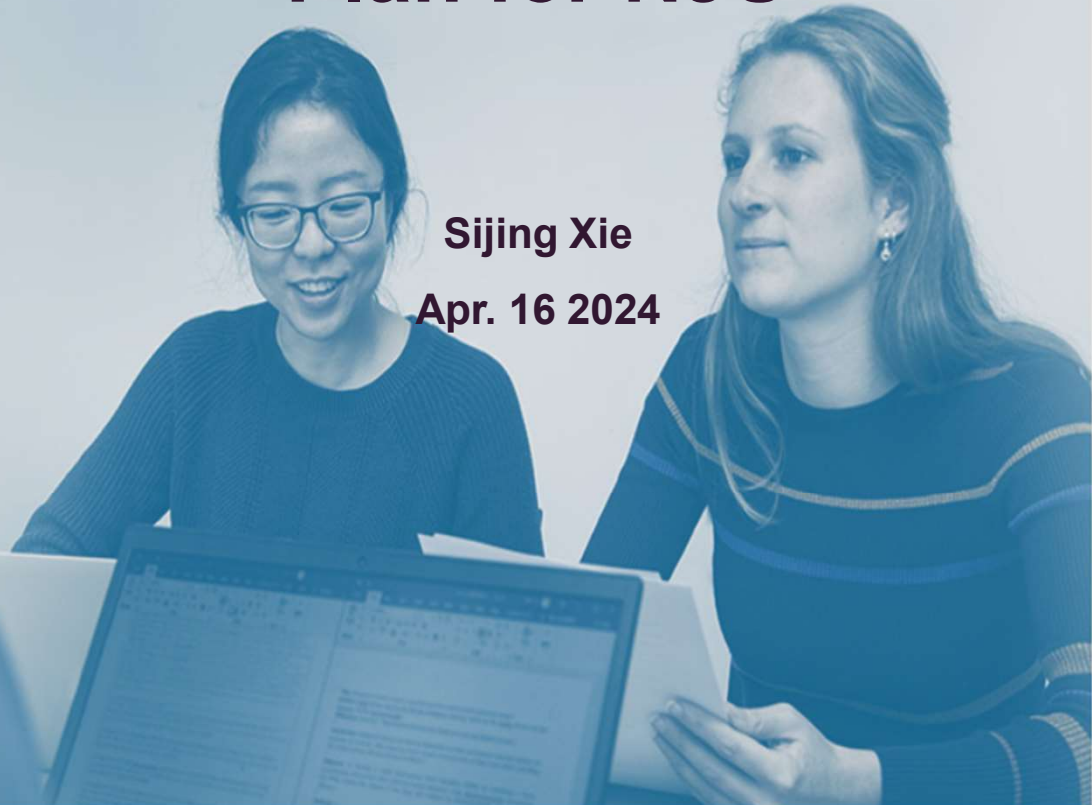


Co-funded by the  
Erasmus+ Programme  
of the European Union

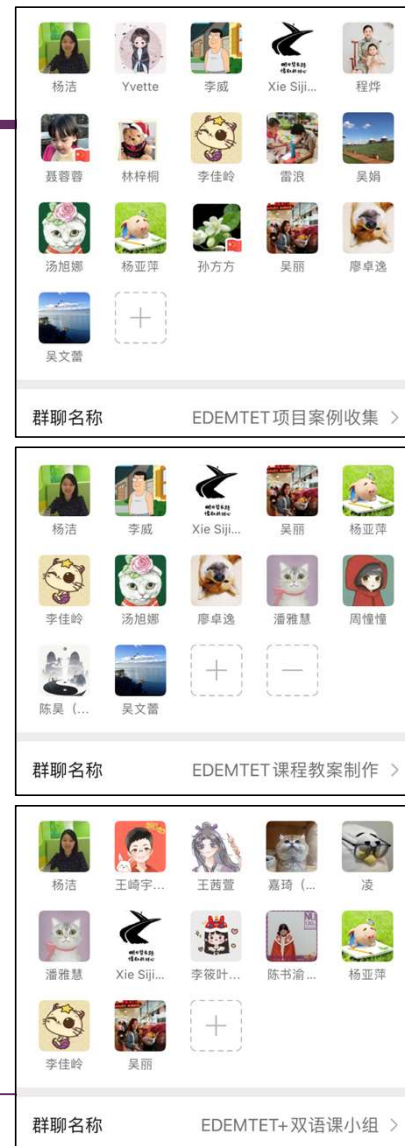
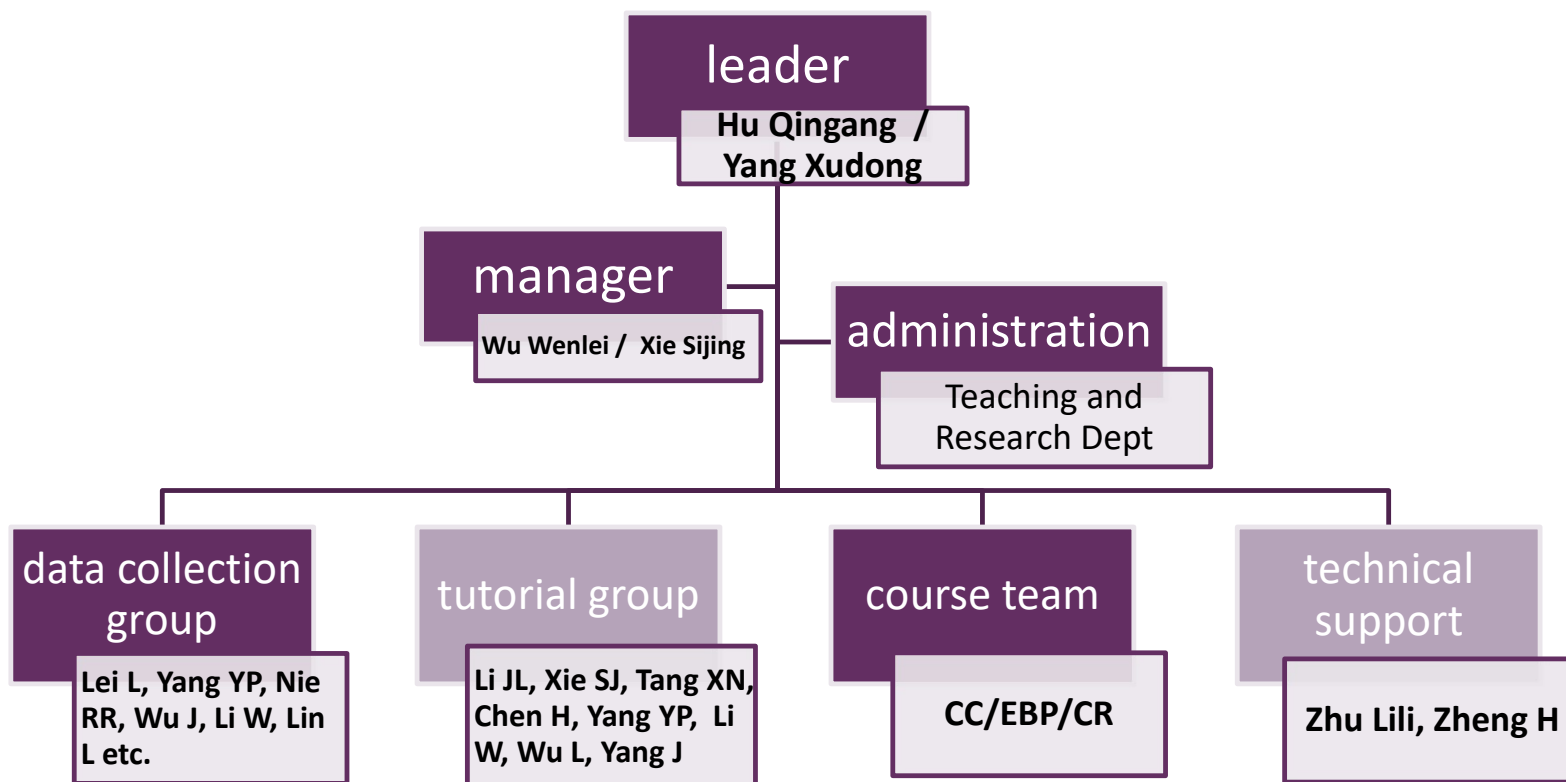
# Future Use of EDEM TET Plan for NJU

Sijing Xie

Apr. 16 2024



# the EDEMTET team of NJU



## Future use & Educational follow up activities, NJU idea

---

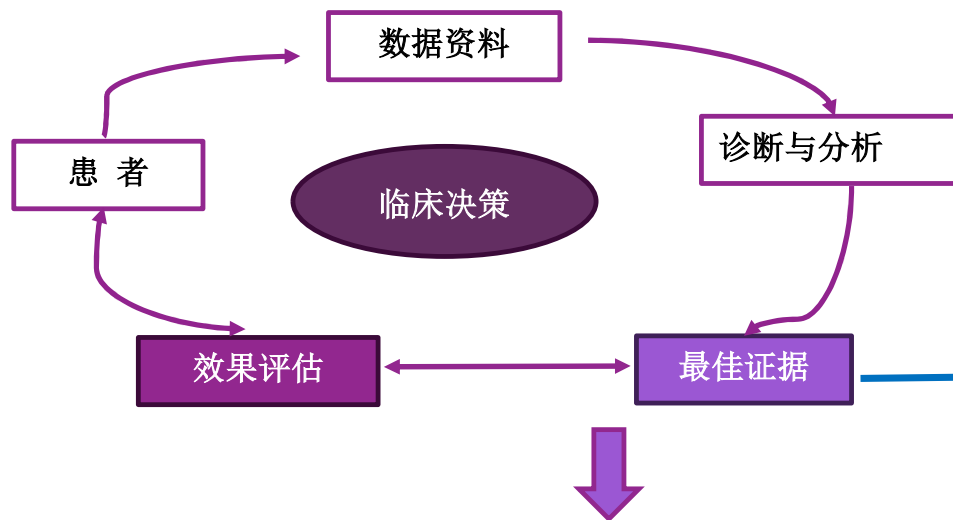
1. Academic degree education in Nanjing University
  2. Education for residents
  3. Continued Education for young dentists
-

## Expected and experienced impacts

---

### 1. EDEMTET has be partly inserted in the course of Endodontics for Undergraduate students

- ✓ Partial Chapters content of 5 courses, learning analysis methods
  - ✓ fourth-year undergraduate course
  - ✓ fifth-year internship
-



## 21: 非手术治疗失败的持续性根尖周感染

?? 可能的决策

**方案一** 21根管再治疗

**方案二** 21拔除+修复治疗

**方案三** 21根尖外科手术



View the CAT

[printer-friendly](#) / [share this CAT](#)

**Title** Endodontic Microsurgery (EMS) Has a Significantly Higher 4-Year Success Rate When Compared to Non-Surgical Endodontic Retreatment

**Clinical Question** For healthy patients requiring endodontic retreatment, is endodontic microsurgery (EMS) a more successful treatment option compared to non-surgical endodontic retreatment?

**Clinical Bottom Line** Endodontic microsurgery is a reliable treatment option and could be considered as first treatment alternative for patients with a failed initial root canal therapy, since it has a high success rate and predictable long-term outcome. This is supported by a recent meta-analysis and a retrospective cohort study which reported EMS to have higher success rates (92% to 94.7%) than non-surgical retreatments (86% to 82.4%) up to 4 years post-treatment. However, at follow-up periods longer than 4 years, both treatment modalities have similar outcomes.

**Best Evidence** (you may view more info by clicking on the PubMed ID link)

PubMed ID	Author / Year	Patient Group	Study type (level of evidence)
#1) 25995864	Kang/2015	18 studies/2373 patients	Meta-Analysis
<b>Key results</b> The weighted pooled success rate of the EMS group was 92% (pooled effect size [ES] 0.919, 95% CI 0.881–0.957), which was significantly higher than that of the non-surgical retreatment group of approximately 86% (pooled ES 0.797, 95% CI 0.737–0.857) ( $p < 0.05$ ). However, when the weighted pooled success rates were compared between the EMS and the retreatment groups at $\geq 4$ years, the difference was not statistically significant ( $p > 0.05$ ), with the EMS group showing 82% success (pooled ES 0.825, 95% CI 0.713–0.937). The retreatment group also showed 82% success at $> 4$ years (pooled ES 0.817, 95% CI 0.767–0.867). The authors analyzed the quality of the studies in this meta-analysis and ranked them as group "A" (highest quality) through group "C" (lowest quality). For the microsurgery group, the pooled success rate of group A studies was 90% (pooled ES 0.904, 95% CI 0.860–0.947), and group B was 95% (pooled ES 0.947, 95% CI 0.893–1.001); there was no group C available for analysis. For the retreatment group, the pooled success rate of group A was 74% (pooled ES 0.743, 95% CI 0.627–0.858), group B was 80% (pooled ES 0.797, 95% CI 0.750–0.843), and group C was 85% (pooled ES 0.854, 95% CI 0.818–0.890). This data indicates that as the quality of the studies decreased there was an increase in pooled success rates. This could make interpretation of the data difficult and the risk of bias should be taken into account.			
#2) 29970247	Curtis/2018	97 adult patients, 125 teeth	Retrospective cohort study
<b>Key results</b> This study employed the volumetric analysis of periapical radiolucencies suggestive of apical periodontitis in pre-surgical and post-surgical cone-beam computer tomography (CBCT) imaging. Teeth that underwent non-surgical retreatment with periapical radiolucencies had an average volumetric reduction of 62.4% at the follow-up visits. However, teeth that underwent EMS had an average volumetric reduction of 95.0% following treatment. These results show that using quantitative methods EMS resulted in greater healing rates as measured by the 3D reduction in periapical radiolucency. Using the dichotomous measure of the presence or absence of radiolucency at the follow up visits, EMS resulted in absence of radiolucency (complete healing) in 49 of 57 (86.0%) versus retreatment with lower incidence of complete healing in 28 of 68 (41.2%, $P < .0001$ ). Using a less stringent criteria that included cases with reduction in radiolucency size ("reductive healing"), EMS was 94.7% successful when compared to retreatment 82.4% ( $P < .05$ ).			

**Evidence Search** MeSH Terms: microsurgery; retreatment

**Comments on Validity:** The meta-analysis included 18 studies (11 microsurgery, 7 non-surgical

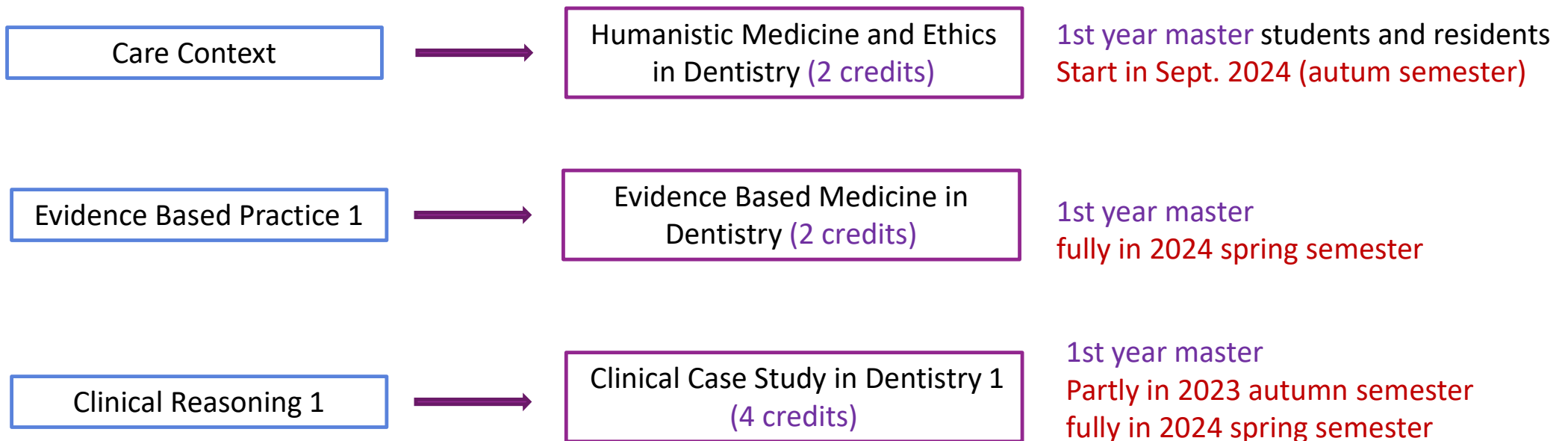
**The Evidence** retreatment) selected using a strict screening process and well-established parameters. The authors tried to account for all confounding factors; however some of the included studies

**根管显微外科（EMS）的4年成功率明显高于非手术的根管再治疗**

# Expected and experienced impacts

---

2. 3 courses were inserted in the curriculum for postgraduate students and residents.



# Expected and experienced impacts

## Clinical Case Study in Dentistry

	Date	Content	Teacher
3	3.13	Introduction of clinical reasoning and EDEMTET (Off line)	Yaping Yang
4	3.20	Principles and methods of oral photography (Offline)	Peng Wang
5	3.27	Critical Appraisal of a Topic (CAT) (On line)	Xuna Tang
6	4.3	Care provision cycle (On line)	Lin Lin
7	4.10	Collection and processing of Oral clinical picture data (Offline)	Peng Wang
8	4.17	Analysis of patient data and risks (On line)	Jie Yang
9	4.24	Clinical Decision-making (On line)	Yaping Yang
10	5.8	Shared Decision-making (On line)	Yaping Yang
11	5.15	Collaborative Clinical reasoning (On line)	Lin Lin
12	5.22	Feedback, Q&A (Offline)	Teachers Group
13	5.29	Flipped Classroom 1 (Single Subject/Simple Case) (Offline)	Orthodontics—Jialing LI, Guifeng LI Endodontics—Xuna Tang, Yaping Yang Oral Surgery & Radiology—Wei Li, Zitong Lin Prosthodontics—Lei Zhang, Yang Cao Periodontics—Juan Wu, Jie Yang
14	6.5	Flipped Classroom 2 (Complex Case) (Offline)	Group 1: Jialing LI, Xuna Tang, Wei Li, Lei Zhang, Jie Yang Group 2: Guifeng LI, Yaping Yang, Zitong Lin, Yang Cao, Juan Wu

## Evidence Based Medicine in Dentistry

2023 至 2024 学年第二学期										
系(专业) 2023 级三年制、2023 级预培班					课程 口腔循证医学 (实践)					
2023 级专插					计划学时 理论 33 实验 9					
听课人数 95 实习组数 每组人数										
理论授课方式 PPT 教学										



# Expected and experienced impacts

## 2. Summer school for graduate student in 2023

- About 50 students from 29 universities participated in the summer school
- WHU, GXMU, Zhejiang University, Shanghai Jiao Tong University, and Xi'an Jiao Tong University, et al from different provinces

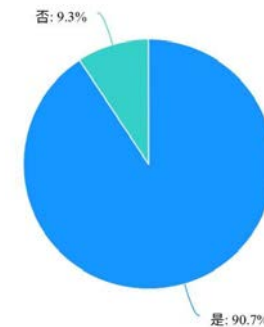


## Questionnaire after summer school

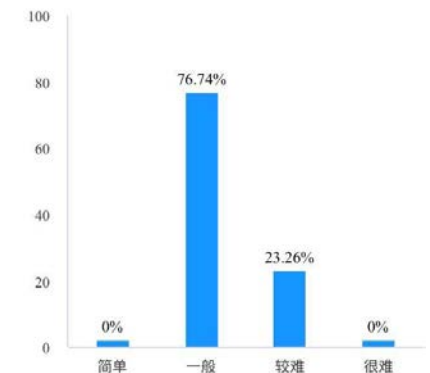
2	暂无
3	无
4	课时有点短
5	课程时间较长, 可分为几个小节
6	我觉得课件有些太偏理论了, 就是那些话我翻译过来都能看懂但是让我自己直接实操感觉难度有点大, 我觉得如果能在这个课件基础上给我们一个真正应用那个circle治疗的范例, 可能会让我们更好理解一点
7	无
8	建议可以多一些口外的病例
9	无
10	无
11	无
12	纯理论部分较为枯燥, 希望多穿插一些实例。
13	希望加入在研究生课程中
14	无
15	无
16	可以按专业方向吗?
17	希望既往病史课程可以更齐全。
18	希望任务时间可以长一些, 晚上宿舍确实有点累
19	无

20	建议可以更加明确汇报呈现的内容框架, 建议可以给小组更多的病例进行讨论, 让大家发生更多的思维碰撞, 最后只汇报其中的一个病例, 对于未呈现的病例可以交类似于摘要的总结便于老师指正
21	建议全国的口腔类学校推广
22	希望讲座可以增加与学生的互动
23	可以更多一些循证医学的内容
24	无
25	可以稍微使之日常实用性更强
26	可增加模拟病人的环节
27	无
28	完成的作业无法提交
29	非常喜欢课程设计中的临床示例, 很简洁易懂, 希望可以多一点示例解说, 在学习示例中理解知识点
30	学习方式主要是学生自学PPT的形式, 学生吸收知识的效率较低, 如果能有老师讲解的动画或者视频可能会更能辅助学生学习。
31	可以增加学生询问病史环节来获取病史信息: 关于外科的病例较少
32	关于workshop: 过于详细了, 事实上我们在临床也有相关思维, 但缺乏系统性的整理这些思考方式, 作为已经有一些临床经验的医学生, 或许更应看到更为简洁的讲解, 有个小总结, 可以用思维导图方式来讲解, 在不理解的地方可以点击查看更为详细的讲解。另外, ppt第40和41页个人觉得有点绕, 不太容易一下理清楚

appropriate to use English version?



the difficulty of the course ?



## **Research on EDEMTET data**

---

**Questionnaire about EBP1 and Clinical Reasoning 1 from 94 students**

- **1<sup>st</sup>-year postgraduate students for master , 50**
- **1<sup>st</sup>-year residents, 39**
- **1<sup>st</sup>-year postgraduate students for DDS, 5**

---

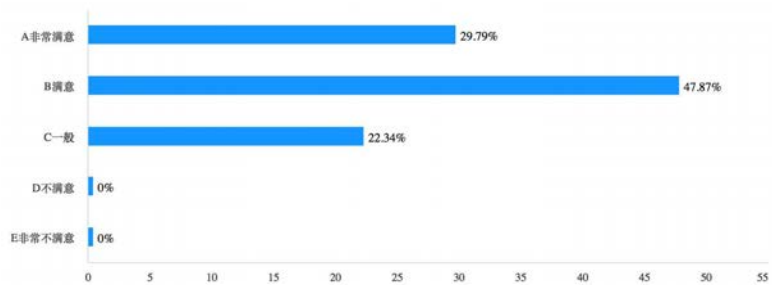
## **Background**

- **36% of the students had the experience of the course EBP**
- 
- **67% of the students had the experience of the course Epidemiology**
- 
- **92% of the students had the experience of the course Medical Statistics**

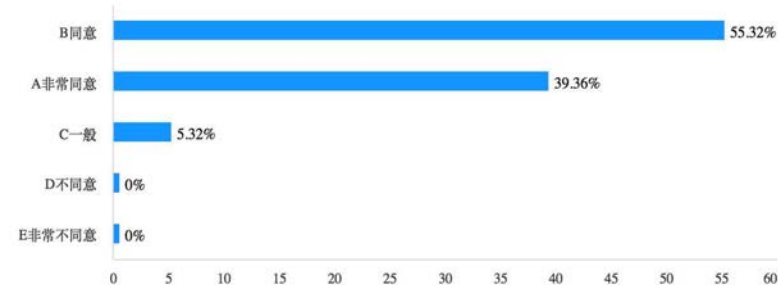
# Research on EDEMTET data

## About the courses in EDEMTET

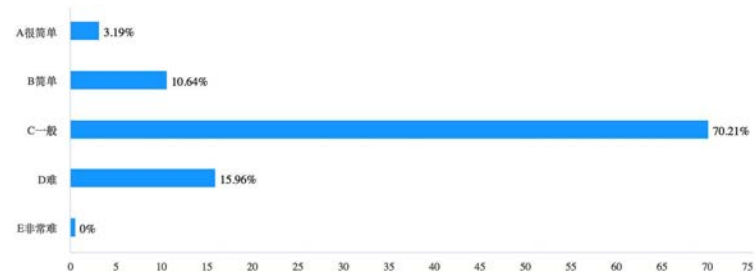
### The scientificity of course content



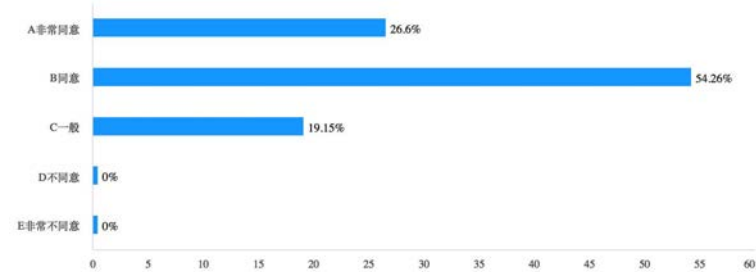
### The rich of course resources



### The difficulty of course content



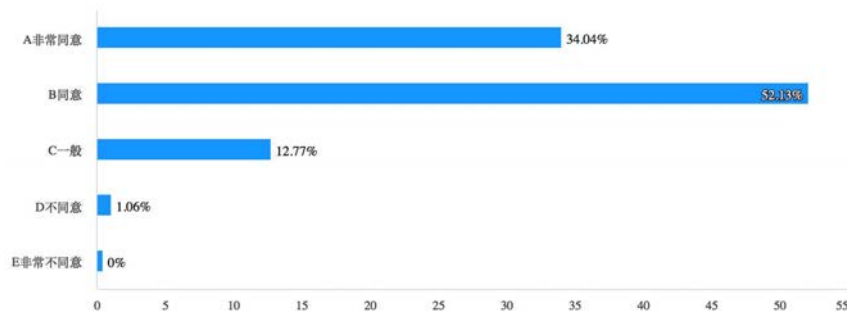
### The closely between course and clinical question



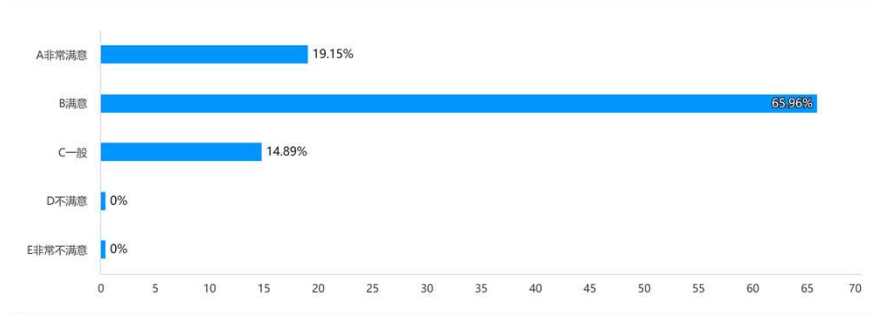
# Research on EDEMTET data

## About the assignments in EDEMTET

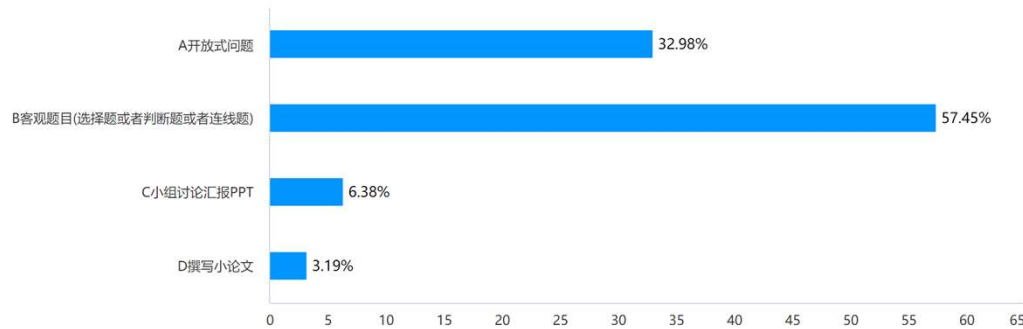
### Assignment is appropriate to assess students



### Do you like the open assignments?



### Which type of assignments do you like?

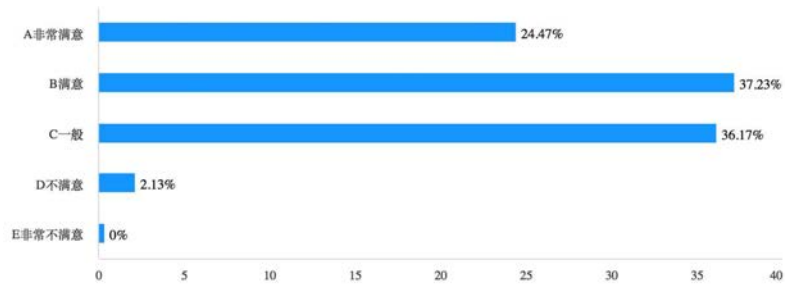




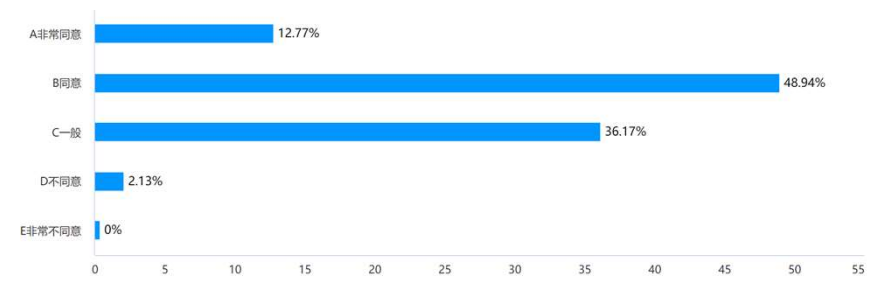
# Research on EDEMTET data

## About the platform in EDEMTET

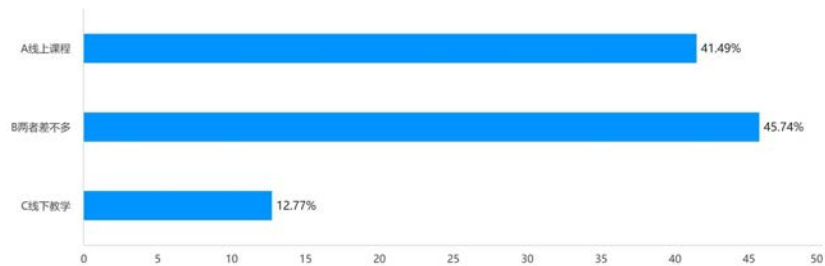
The convenience of platform



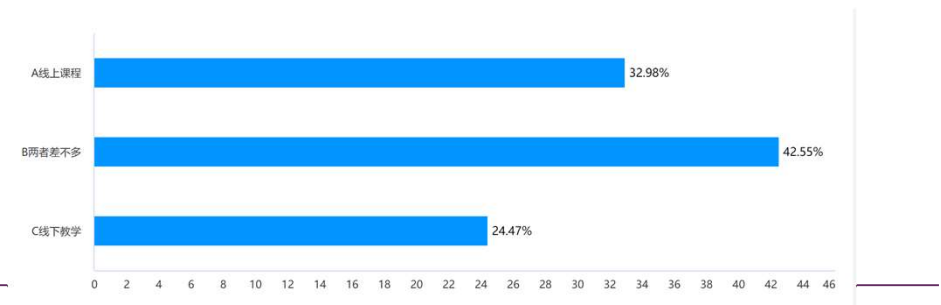
Do you like learning on the platform?



Which learning style do you like, on-line or off-line?



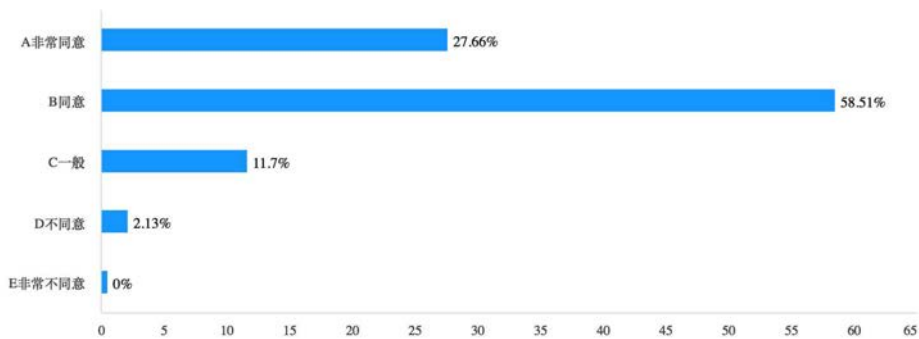
Which learning style do you think more effective, on-line or off-line?



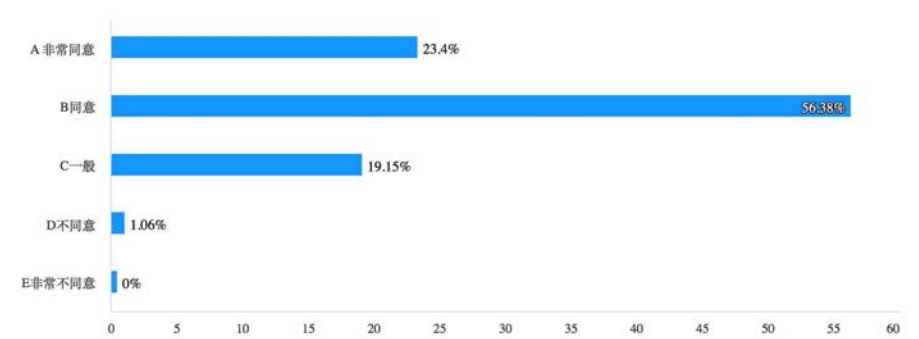
# Research on EDEMTET data

## About the effect of EDEMTET

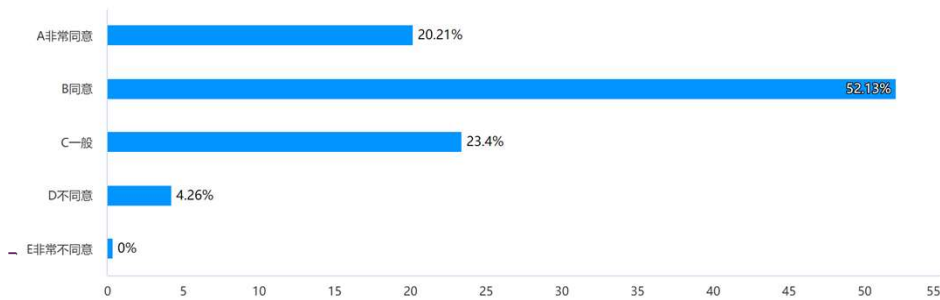
### self-learning ability



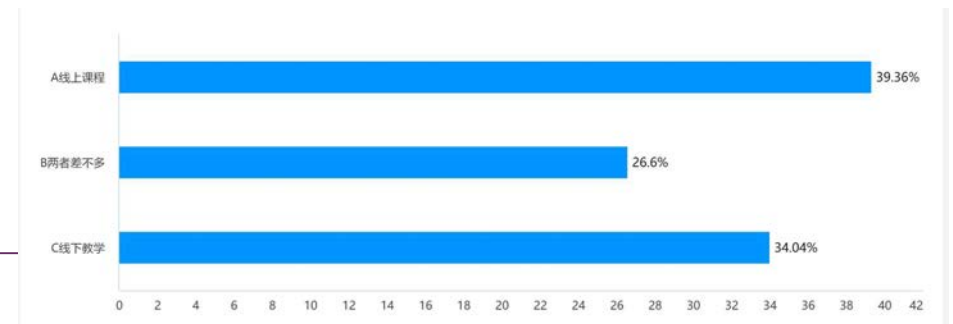
### the ability to analyze and solve clinical problems



### cooperative ability



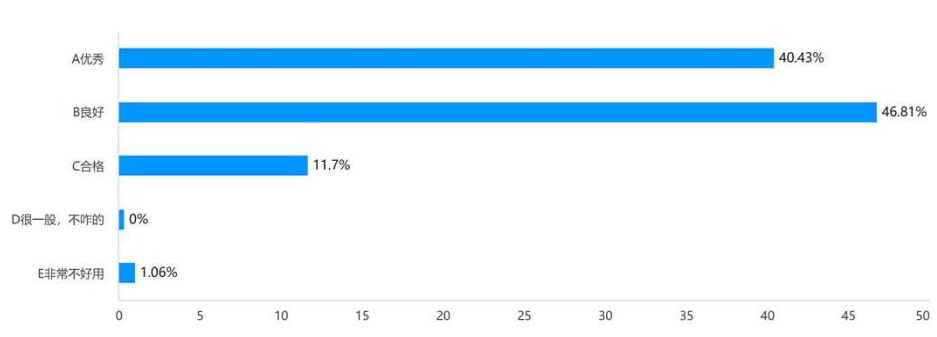
### concentration on the course



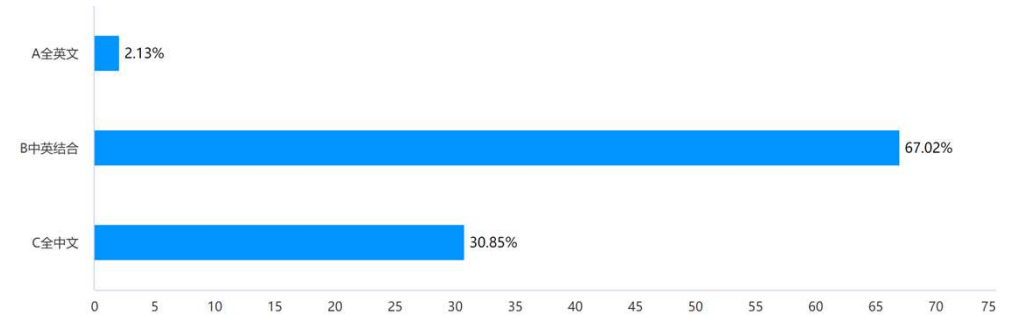
# Research on EDEMTET data

## Total evaluation

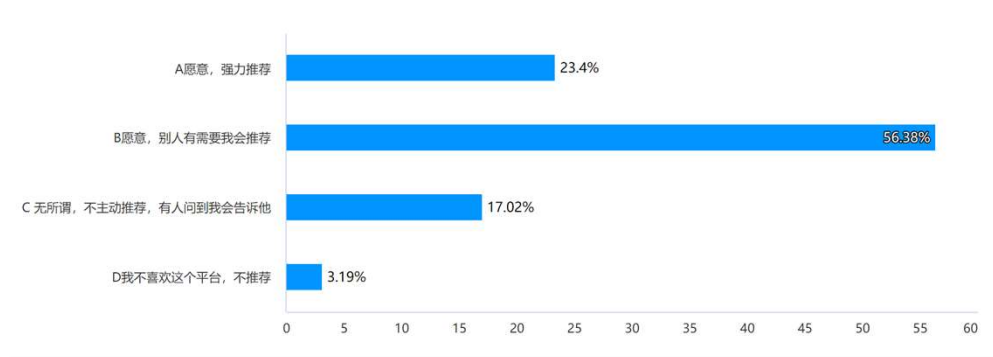
total evaluation



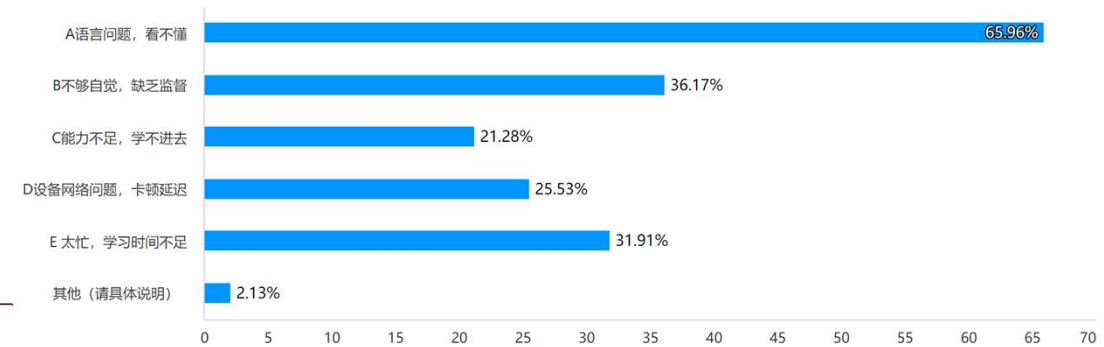
about the language



## Do you want to recommend EDEMTET to the other students?



## personalized difficulties



# Research on EDEMTET data

## Your suggestions



## Further dissemination activities

---

- Teaching Workshop and teacher training
  - Annual Summer School in Jiangsu Province
  - Dissemination in the partners in Jiangsu Provincial Association of Postgraduate education in Stomatology, and also the other universities or dental resident training basements in East China
-



- 
- Nursing
  - Oral hygienist
  - Other new course
  - Summer school, international, EBP, feedback
-



Thank you!

---





多学科团队合作学习和  
循证医学为基础制定治  
疗计划的牙科教育数字  
校园项目

eCampus for Dental Education  
supporting multidisciplinary  
team-based learning and  
evidence-based treatment planning

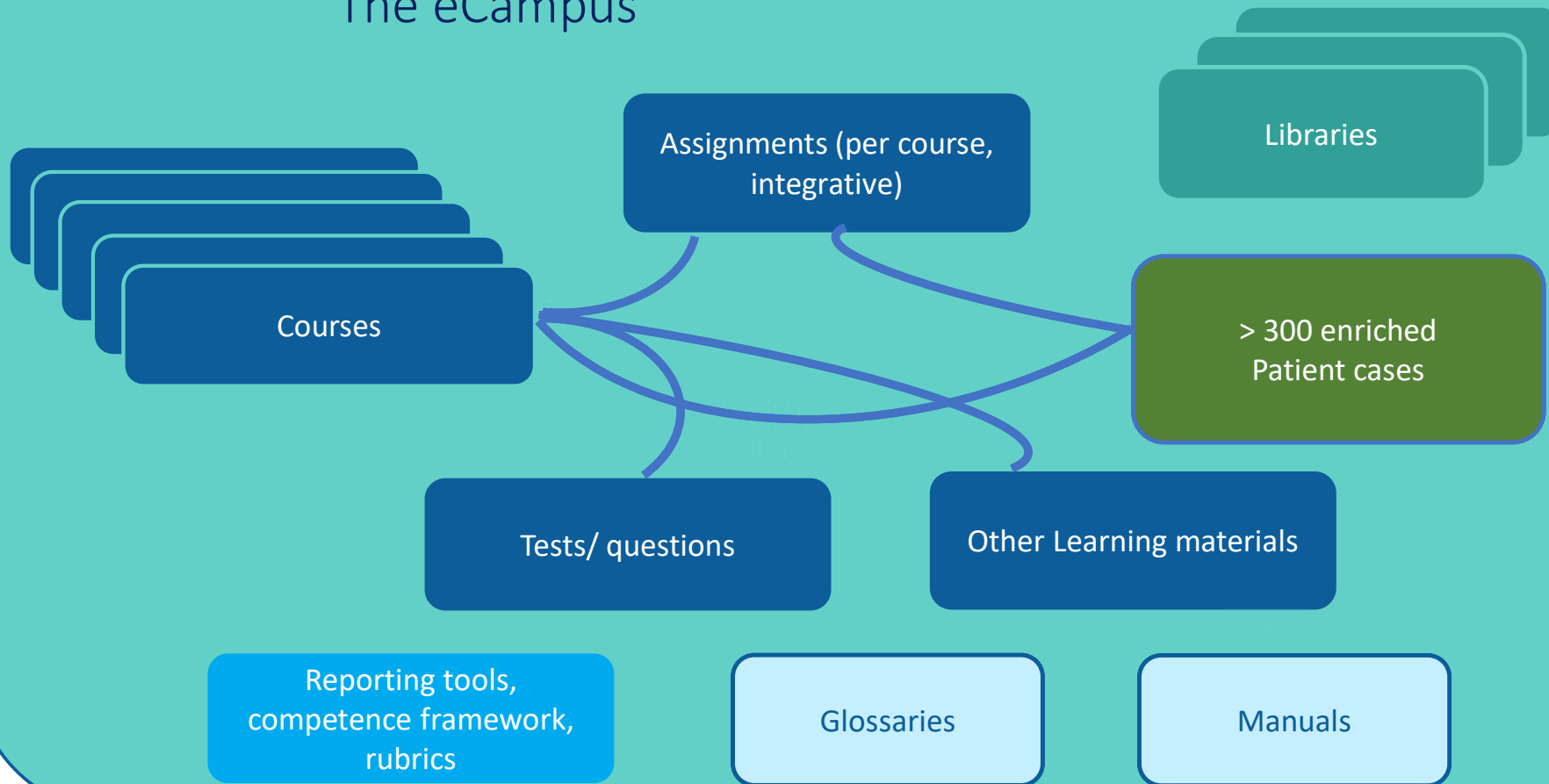


Co-funded by the  
Erasmus+ Programme  
of the European Union

EDEM TET Radboud University  
Future Use, Impact, Sustainability  
16 April 2024

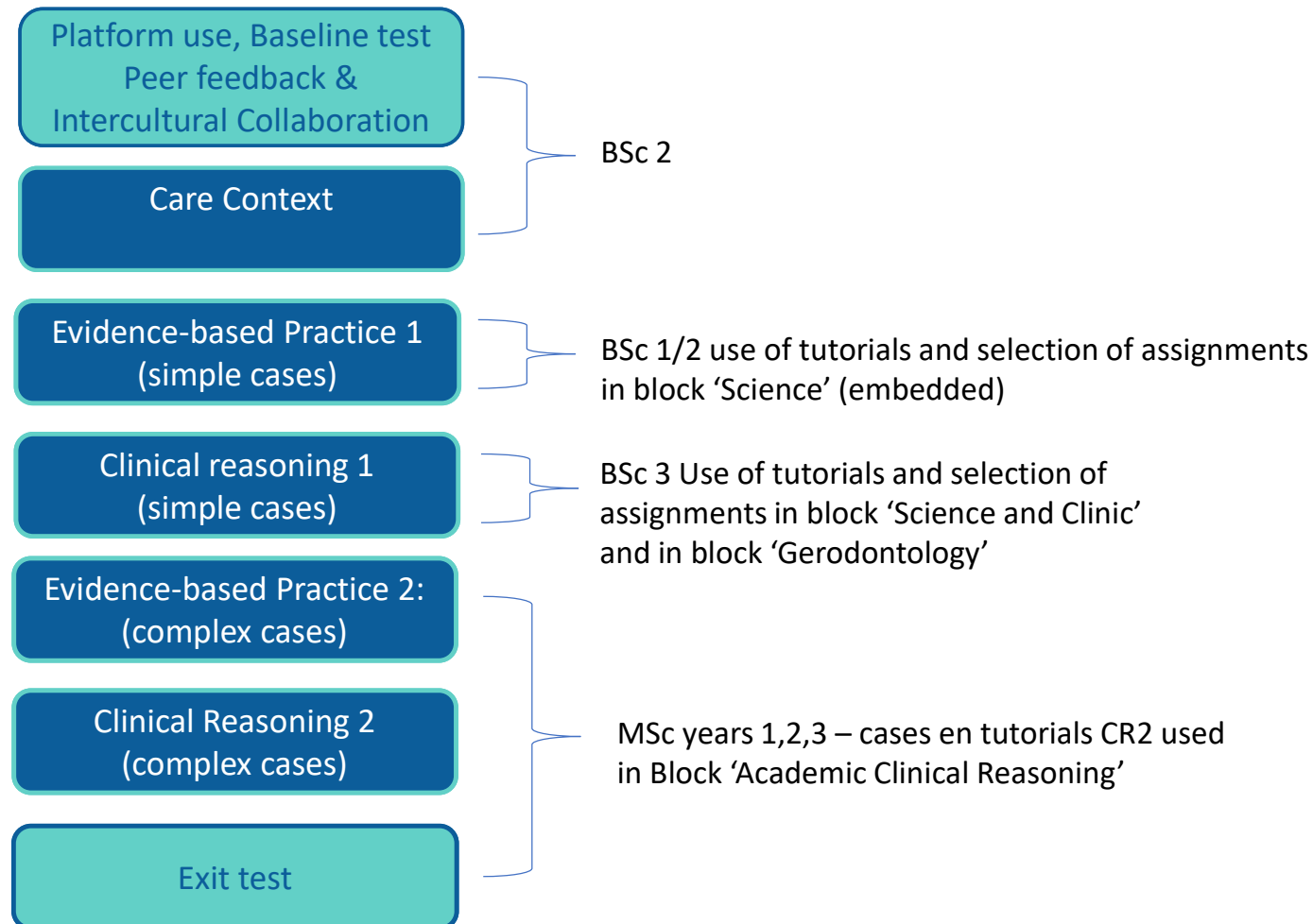


### The eCampus



<i>Course</i>	<i>when</i>	<i>Use how</i>	<i>Study load (hrs)</i>
<b>Introduction course</b>	BSc2	Whole course in blend Introduction lecture, response & workgroups	20
<b>Care context</b>	BSc2	Whole course in blend	40
<b>Evidence-based Practice 1</b>	BSc 1,2	Parts of course in 'Science' block	40
<b>Clinical Reasoning 1</b>	BSc3	Whole course in 'Science & clinic' block, parts in Gerodontology block	80
<b>Evidence-based Practice 2</b>	MSc1	Parts of course in 'Science' block	40
<b>Clinical Reasoning 2</b>	MSc1,2,3	Parts of course in 'Academic Clinical Reasoning' block	20
<b>Patient Cases</b>	MSc1,2,3	Cases used in Course 'Academic Clinical Reasoning', discussed in teacher-led sessions	160

# Future use: Embedding in Radboudumc curriculum 2024/25



- Items used in 'blended' format (lecture, Q&A session, workgroups)
- Size scalable
- Integrated in existing blocks

→ tailor made integration



# Future use & follow up national



## Collaboration extended to

- Other academic dental schools Amsterdam, Groningen
  - Sharing of patient cases, courses,
  - co-creation of new courses
- **Oral hygienist educators**
- **Medical, nursing?**

## Actions:

- Joint proposals for further development



## Collaboration extended to

- Dental schools in Europe
  - In BSc MSc, post-academic, summerschools
  - All components or selected courses
  - Patient Cases
- Dental schools across the world:
  - internationalization@home
  - Summerschools
  - International classrooms?
- Further development of platform in joint projects?



## Some possible uses of EDEMTET & materials



- Can be used **internally and externally**; reach out to other Chinese and Asian dental schools
- Facilitates **development of new learning paths and tailor-made learning materials**; e.g. postgraduate courses, summer schools
- Facilitates **international exchange** (teacher and student exchange) and internationalization@home
- Reach out to **other disciplines** – medicine, nursing
- Further development – **extension of topics**
- Acquiring grants



# Our most important impacts and achievements



## *Individual level*

- Improved skills in & knowledge of
  - Evidence-based practice in dentistry
  - Clinical reasoning, decision-making, treatment planning
  - Novel teaching methods
  - Team-based learning, case-based learning
  - Dental care provision
- Professional development:
  - Improvement in 21st century skills
  - Enhanced life-long learning capacity
- Staff & students better networked – nationally, internationally



# Our most important impacts and achievements



## *Institutional level*

- Modernized curricula
- Improved educational quality
  - coherence, integrated approach, quality, quantity
- Improved potential for educational research
- Stronger international profile
- Extended and intensified networks
- > 100 students and teachers trained: Increased teaching capacity
- More effective deployment of teachers



# Our most important impacts and achievements



## *National and international level*

- Established international networks, increased contacts between
  - students, teachers
  - dental schools
  - dental sectors (e.g. associations of dentists)
- Increased sustainability:
  - reusable, online learning materials
  - structure for internationalisation@home





- EDEM TET contribution to a sustainable curriculum:
  - **Education aimed at transformation and change** (not just knowledge) , that is interactive and learner-centred with a strong emphasis on developing critical thinking skills  
We help students develop a critical attitude to care provision and treatment planning
  - **Education for all and lifelong learning**,  
We offer flexible, adjustable, online courses suitable for lifelong learning
  - **Systems thinking** (highlighting connections between environmental, economic, social and political systems)  
We do so in our eCampus curriculum, teaching students how to take into account system aspects in care provision (esp. in clinical decision making and making treatment plans)
  - **Envisioning a better future through problem solving and critical thinking**  
We particularly train clinical reasoning, critical thinking and problem solving skills
- EDEM TET eCampus and related materials will further increase curriculum sustainability through: **increasing flexibility, digitalization** of education, enabling easy **reuse** of educational learning materials

# Preliminary Summary and Future Prospects of EDEM TET eCampus



武汉大学口腔医学院  
SCHOOL OF STOMATOLOGY WUHAN UNIVERSITY

學大漢武立國

# 01

## CHAPTER

### Current Usage

- Course status
- Research data
- Dissemination activities





# Course status of EDEMTET eCampus in WHUSS



## *Supervisors*



Prof. Bian Zhuan



Prof. He Miao

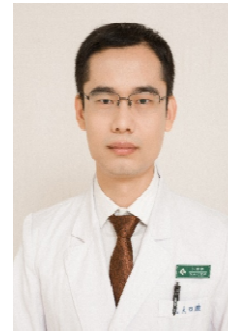
## *Teacher team*



Liang Shanshan  
Prosthodontics



Lin Yuxiu  
Endodontics



Bu Linlin  
Maxillofacial Surgery



Zhang Chen  
Orthodontics

## *Assistant*



Peng Mengdong  
Assistant

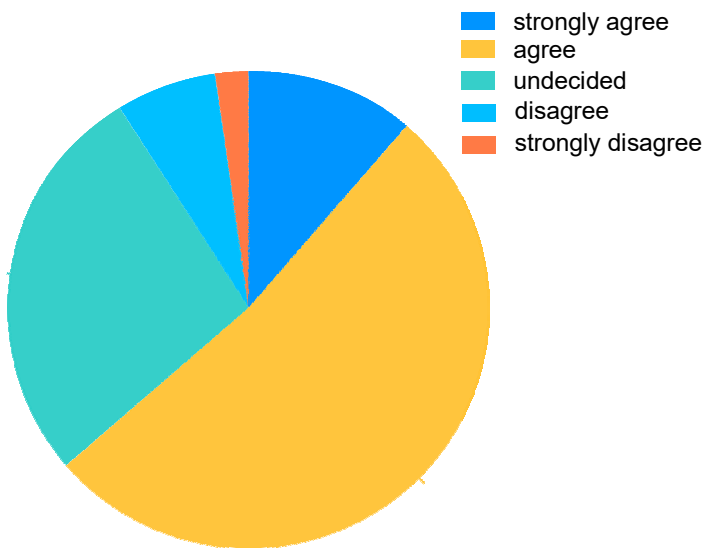


武汉大学口腔医学院  
SCHOOL OF STOMATOLOGY WUHAN UNIVERSITY

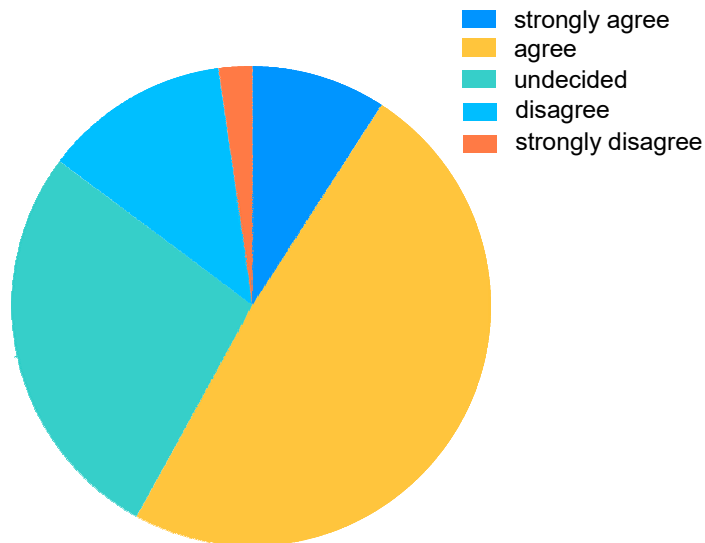
## Research data



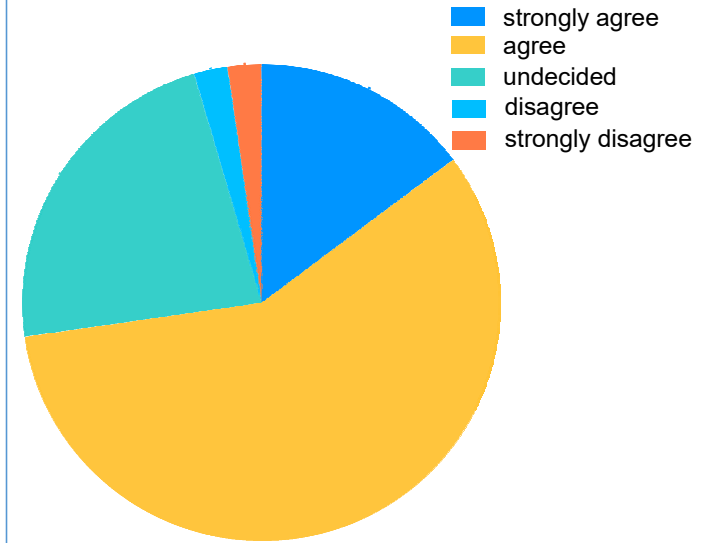
3. Do you think studying in "EDEM TET" online platform is helpful to your diagnostic thinking?



4. Do you think studying in "EDEM TET" online platform is helpful to relieve your communication apprehension?



5. Do you think studying in "EDEM TET" online platform is helpful to your critical thinking?



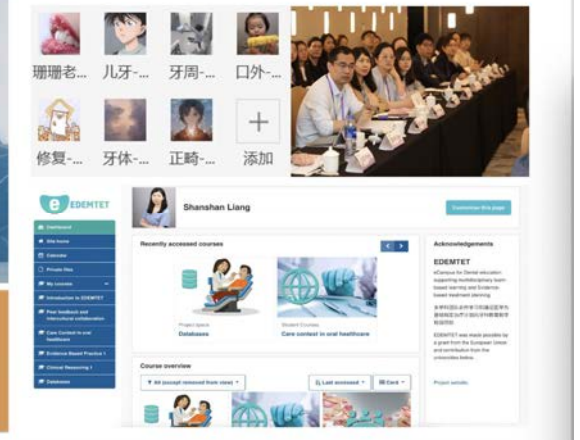
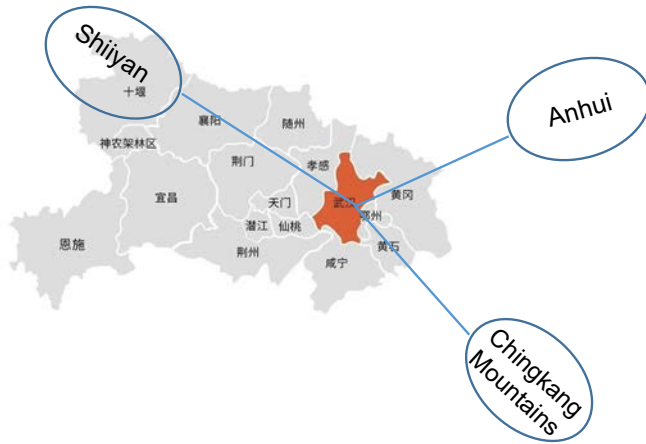
\*course: Dentistry online course based on the International Electronic campus



武汉大学口腔医学院  
SCHOOL OF STOMATOLOGY WUHAN UNIVERSITY

## Dissemination activities

- Application promotion in the central region of China.
- Teaching support for other dental schools.



武汉大学口腔医学院  
SCHOOL OF STOMATOLOGY WUHAN UNIVERSITY



# 02

## CHAPTER

### Sustainability

- Course establishment
- Funding supports



# Funding supports of EDEM TET eCampus

- The funding from Hospital of Stomatology Wuhan University
- Key Projects from Wuhan University Degree and Graduate Education and Teaching Reform Research (2020,2024)

表1：2020年武汉大学学位与研究生教育教学改革研究重点项目

培养单位	类 别	项目名称	项目负责 人
口腔医学院	重点项目	支持多学科团队在线学习和循证治疗规划的国际牙科教育电子校园建设	边 专

2024 年武汉大学学位与研究生教育教学改革研究拟立项项目  
(重点项目)(排名不分先后)

培养单位	项目 申请人	项目名称
口腔医学院	何 淼	基于国际牙科教育电子校园平台的“PCT”教学模式在口腔医学专业学位研究生培养中的探索与实践



## Future use of EDEMTET eCampus



Types of students	When to start	Care Context in oral healthcare	Clinical Reasoning	Evidence Based Practice
Master (clinical)	1 <sup>st</sup> year	0.5 year	1 year	1 year
5+3 years degree	6 <sup>th</sup> year	1 year	1 year	1 year
8-years degree	5 <sup>th</sup> year	1 year	1 year	1.5 year
Doctor (clinical)	1 <sup>st</sup> year	0.5 year	1 year	1.5 year
Residents	1 <sup>st</sup> year	0.5 year	1 year	1 year



武汉大学口腔医学院  
SCHOOL OF STOMATOLOGY WUHAN UNIVERSITY

## Further dissemination activities



### Conference propaganda



Chinese Stomatological Association (CSA)

Annual Meeting of Dental Education Committee

The Union of Dental Education in Five Central Provinces



武汉大学口腔医学院  
SCHOOL OF STOMATOLOGY WUHAN UNIVERSITY

## 南京大学医学院口腔医学院 2022-2023 学年硕士课程安排

根据南京大学医学院口腔医学院 2022 年硕士研究生培养方案，硕士研究生需完成硕士阶段要求的课程，通过考核并修满至少 32 学分。

具体开设课程如下：

中文课程名称	Course	Credit	Class Hour	Timetable	EDEMTET relative information
英语	English courses for Master Candidates	4	72	2022.09.05-2022.12.19	-
中国特色社会主义理论与实践研究	Study on the Theory and Practice of Socialism with Chinese Characteristics	2	36	2022.09.05-2022.12.19	-
自然辩证法概论或马克思主义与社会科学方法论或马克思主义原著选读（三选一）	Dialectics of Nature OR Marxism and Methodology of Social Sciences OR Selected readings of Marxist Classics (one out of three)	1	18	2022.09.05-2022.12.19	-
口腔医学统计学	Stomatology statistics	2	32	2022.09.05-2022.12.19	EDEMTET patient cases and EDEMTET team-based learning will be applied
口腔循证医学	Evidence based Practice	2	32	2023.02.13-2023.06.12	Full EDEMTET course
口腔生物材料研究与应用	Research methods and application on oral biomaterials	2	32	2022.09.05-2022.12.19	-
口腔临床研究与设计	Medical Research Design on Dentistry	2	32	2023.02.13-2023.06.12	EDEMTET patient cases and EDEMTET team-based learning will be applied
口腔生物学	Oral biology	2	32	2022.09.05-2022.12.19	-
口腔医学人文学概论	Care Context	2	32	2022.09.05-2022.12.19	Full EDEMTET course
口腔临床技能模拟训练	Simulative Training of Dentistry	4	96	2022.09.05-2023.06.12	-
口腔临床案例分析	Case-based learning on dentistry	2	32	2023.02.13-2023.06.12	EDEMTET patient cases and EDEMTET team-based learning will be applied
口腔疾病临床诊断与治疗	Clinical diagnosis and treatment of dentistry	3	48	2022.09.05-2022.12.19	EDEMTET patient cases and EDEMTET team-based learning will be applied
口腔医学科研方法与基本技术	Research methods and basic techniques of stomatology	2	32	2023.02.13-2023.06.12	-
医学法学	Medical law	1	8	2023.02.13-2023.06.12	-
重点传染病防治	Prevention and control of infectious diseases	1	8	2023.02.13-2023.06.12	-

南京大学医学院口腔医学院  
2022 年 6 月 21 日

# 南京大学医学院附属口腔医院

## 教学进度表

2023 至 2024 学年第二学期

2023 年级 三年制、规培 班  
听课人数 实习组数 每组人数  
理论授课方式 线上+线下

教材	《中国口腔医学 继续教育杂志》 <a href="https://dentalschool.edemtet.eu/">https://dentalschool.edemtet.eu/</a>
参考书	

课程  
计划时数 理论 实验

Week	理 论		
	Date	Content	Teacher
3	3.13	Introduction of clinical reasoning and EDEMTET (Off line)	Yaping Yang
4	3.20	Principles and methods of oral photography (Off line)	Peng Wang
5	3.27	<b>Critical Appraisal of a Topic (CAT) (线上)</b> ( <a href="https://dentalschool.edemtet.eu/course/view.php?id=7&amp;sectionid=156">https://dentalschool.edemtet.eu/course/view.php?id=7&amp;sectionid=156</a> )	Xuna Tang
6	4.3	<b>Care provision cycle (线上)</b> ( <a href="https://dentalschool.edemtet.eu/course/view.php?id=14&amp;sectionid=203">https://dentalschool.edemtet.eu/course/view.php?id=14&amp;sectionid=203</a> )	Lin Lin
7	4.10	Collection and processing of Oral clinical picture data (Off line)	Peng Wang
8	4.17	<b>Analysis of patient data and risks (线上)</b> ( <a href="https://dentalschool.edemtet.eu/course/view.php?id=8&amp;sectionid=133">https://dentalschool.edemtet.eu/course/view.php?id=8&amp;sectionid=133</a> )	Jie Yang



9	4.24	<b>Clinical Decision-making (线上)</b> ( <a href="https://dentalschool.edemtet.eu/course/view.php?id=8&amp;sectionid=135">https://dentalschool.edemtet.eu/course/view.php?id=8&amp;sectionid=135</a> )	Yaping Yang
10	5.8	<b>Shared Decision-making (线上)</b> ( <a href="https://dentalschool.edemtet.eu/course/view.php?id=8&amp;sectionid=137">https://dentalschool.edemtet.eu/course/view.php?id=8&amp;sectionid=137</a> )	Yaping Yang
11	5.15	<b>Collaborative Clinical reasoning (线上)</b> ( <a href="https://dentalschool.edemtet.eu/course/view.php?id=8&amp;sectionid=138">https://dentalschool.edemtet.eu/course/view.php?id=8&amp;sectionid=138</a> )	Lin Lin
12	5.22	Feedback, Q&A (Off line)	Teachers Group
13	5.29	Flipped Classroom 1 (Single Subject/Simple Case) (Off line)	Orthodontics——Jialing LI、Guifeng LI Endodontics——Xuna Tang、Yaping Yang Oral Surgery & Radiology ——Wei Li、Zitong Lin Prosthodontics——Lei Zhang、Yang Cao Periodontics——Juan Wu、Jie Yang
14	6.5	Flipped Classroom 2 (Complex Case) (Off line)	Group 1: Jialing LI、Xuna Tang、Wei Li、Lei Zhang、Jie Yang Group 2: Guifeng LI、Yaping Yang、Zitong Lin、Yang Cao、Juan Wu

讲课负责教师\_\_\_\_\_ 教研室主任 \_\_\_\_\_ 签 名 (\_\_\_\_月\_\_\_\_日)

实验见习负责教师 \_\_\_\_\_ 教育科主任 \_\_\_\_\_ 审 核 (\_\_\_\_月\_\_\_\_日)

院 长 \_\_\_\_\_ 审 核 (\_\_\_\_月\_\_\_\_日)

说 明	1、 此表务请逐项填写，讲课、实习内容必须具体，实习如需放录象、电影、用显微镜以及其它条件,应在备注栏内注明,以便统筹安排。 2、 填制一式三份在规定时间内交院教育科审核后，一份交医学院，一份留教育科并向学生公布，一份留教研室。 3、 上课地点：默认南京大学医学院附属口腔医院 2 号楼 11 楼教学中心，若需在南大上课请在上表内容中注明。 4、 上课时间：根据医院作息时间执行。
--------	---

课程设置说明：本次课程安排综合线上和线下部分，既往课程和 edemtet 平台相结合。教师以辅导、答疑和引导为主。课程不安排最后期末考试，以平时作业和平台记录活跃程度等作为参考。

1. 线上平台已有的作业，每次课后提交。线上课程的负责老师，负责该章节的答疑，作业收集和评分。
2. 摄影作业：每人提交，王鹏老师在第二次课时加以点评。
3. CAT 作业：汤老师提前布置，可在 5.22 日答疑课进行点评。
4. 第一次翻转课堂：同学们按专业方向分为 5 组，各专业两个老师就简单病例进行指导
5. 第二次翻转课堂：同学们随机分为两组，所有任课老师分成两大组，每组含各科老师，选定复杂病例，
6. 课件翻译&思维导图制作：  
**A 组: Care provision cycle**  
**B 组: Analysis of patient data and risks**  
**C 组: Clinical Decision-making**  
**D 组: Shared Decision-making**  
**E 组: Collaborative Clinical reasoning**

课前准备：

1. 教师和学员确认，开通 edemtet 账号
2. 教师会议：课程安排最终确认。介绍 edemtet 平台基本内容。
3. 王鹏部分：建议第二节课加入一些各学科或不同病例的临床图片资料的收集规范
4. 线上课程负责老师：线上课程的负责老师，负责该章节的答疑，作业收集和评分
5. 翻转课堂老师：提前筛选合适的病例，熟悉课程内容核心

### GXMU Postgraduate Curriculum in Dentistry

Course(Chinese)	Course (English)	Class Hour	Credit	Academic Year	Semester	Course Type	Teaching Form	Application of EDEMTET Resources
英语	English	32	2	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
自然辩证法	Dialectics of nature	16	1	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
医学统计学	Medical statistics	36	2	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
医学文献检索	Medical literature retrieval	18	1	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
预防医学与公共卫生	Preventive medicine and public health	16	1	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
常见和新发感染性疾病防治	Prevention and treatment of common and emerging infectious diseases	18	1	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
临床流行病学	Clinical epidemiology	16	1	First Year	Fall (Sept.2022-Jan.2023)	Elective	online	
循证医学	Evidence-based medicine	16	1	First Year	Fall (Sept.2022-Jan.2023)	Elective	online	
口腔颌面外科学基础与临床	Oral and maxillofacial surgery	16	1	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
口腔生物材料学	Oral biomaterials	16	1	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
牙合学	Occlusion	16	1	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
口腔种植学	Oral implantology	16	1	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	

牙体牙髓病学	Endodontics	16	1	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
牙周病学	Periodontics	16	1	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
口腔黏膜病学	Oral mucosal diseases	16	1	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
口腔正畸生物学	Orthodontic biology	16	1	First Year	Fall (Sept.2022-Jan.2023)	Compulsory	onsite	
口腔组织病理学	Oral histopathology	16	1	First Year	Spring (March, 2023- Jun. 2023)	Compulsory	onsite	
口腔颌面影像诊断学	Oral and maxillofacial imaging diagnostics	16	1	First Year	Spring (March, 2023- Jun. 2023)	Compulsory	onsite	
科研伦理	Research ethics	16	1	First Year	Spring (March, 2023- Jun. 2023)	Compulsory	onsite	
论文写作	Academic writing	16	1	First Year	Spring (March, 2023- Jun. 2023)	Compulsory	onsite	
口腔公共卫生	Oral public health	16	1	First Year	Spring (March, 2023- Jun. 2023)	Compulsory	onsite	Care Context(including tutorials,teaching coursewares, clinical cases, assignment, etc.)will be applied.
循证口腔医学	Evidence-based Practice	16	1	Second Year	Fall (Sept.2023-Jan.2024)	Compulsory	online	Full EDEMTET course
口腔修复学基础与临床	Prosthodontics	16	1	Second Year	Fall (Sept.2023-Jan.2024)	Compulsory	onsite	
口腔颌面外科学新进展	Research progress on oral and maxillofacial surgery	16	1	Second Year	Fall (Sept.2023-Jan.2024)	Compulsory	onsite	
牙体牙髓病学新进展	Research progress on Endodontics	16	1	Second Year	Fall (Sept.2023-Jan.2024)	Compulsory	onsite	

儿童口腔医学进展	Research progress on Pediatric Dentistry	16	1	Second Year	Fall (Sept.2023-Jan.2024)	Compulsory	onsite	
口腔正畸学新进展	Research progress on orthodontics	16	1	Second Year	Fall (Sept.2023-Jan.2024)	Compulsory	onsite	
口腔正畸学基础与临床	Orthodontics	16	1	Second Year	Fall (Sept.2023-Jan.2024)	Compulsory	onsite	
口腔颌面外科学临床案例课	Cases discussion on oral and maxillofacial surgery	16	1	Second Year	Spring (March, 2024- Jun. 2024)	Compulsory	onsite+online	Clinical reasoning (including tutorials,teaching coursewares, clinical cases, assignment, etc.)will be applied.
口腔修复学临床案例课	Cases discussion on prosthodontics	16	1	Second Year	Spring (March, 2024- Jun. 2024)	Compulsory	onsite+online	Clinical reasoning (including tutorials,teaching coursewares, clinical cases, assignment, etc.)will be applied.
椅旁数字化修复实践	Practice of Chair-side digitized dental restoration	16	1	Second Year	Spring (March, 2024- Jun. 2024)	Compulsory	onsite	
口腔内科学临床案例课	Cases discussion on oral medicine	16	1	Second Year	Spring (March, 2024- Jun. 2024)	Compulsory	onsite+online	Clinical reasoning (including tutorials,teaching coursewares, clinical cases, assignment, etc.)will be applied.
口腔正畸科临床案例课	Cases discussion on orthodontics	16	1	Second Year	Spring (March, 2024- Jun. 2024)	Compulsory	onsite+online	Clinical reasoning (including tutorials,teaching coursewares, clinical cases, assignment, etc.)will be applied.
多学科联合病例讨论课	Multidisciplinary cases discussion	16	1	Second Year	Spring (March, 2024- Jun. 2024)	Compulsory	onsite+online	Clinical reasoning (including tutorials,teaching coursewares, clinical cases, assignment, etc.)will be applied.

## **EDEMTET Course certificate**

### ***Master Education***

***Master Degree Program:*** There are 76 supervisors for master degree candidates, and disciplines include Oral and Maxillofacial Surgery, Periodontics, Endodontics, Oral Medicine, Pediatric Dentistry, Orthodontics, Prosthodontics, Implantology, Dental materials, Oral Histopathology, etc. Approximately 120 students are recruited every year. Two types of Master degree are available, including research-based and training-based ones.

***Training Objective:*** To cultivate highly qualified talents with excellent professional skills to be competent in science research, teaching and clinical services. The training duration is 3 years. The total number of credits for academic master students should not be less than 35 credits. There are no less than 30 credits of courses and no less than 22 credits of compulsory courses. The total credits of professional master students should be no less than 16 credits, including no less than 12 credits of degree courses and no less than 4 credits of elective courses.

***Research-based Program*** emphasizes on the capability of scientific research. Thesis and publication are required to be granted Master's degree.

***Training-based Program*** emphasizes on clinical skills.

All of the following courses will use EDEMTET patient cases:

Course	schooltime	Credit
Care contex (course EDEMTET eCampus)	From October 10 to November 28, 2022, there will be two classes every Monday	1
EBP1 (course EDEMTET eCampus)	From October 10 to November 28, 2022, there will be two classes every Tuesday	1
CR1 (course EDEMTET eCampus)	From October 10 to November 28, 2022, there will be two classes every Wednesday	1
EBP2 (course EDEMTET eCampus)	From October 10 to November 28, 2022, there will be two classes every Thursday	1
CR2 (course EDEMTET eCampus)	From October 10 to November 28, 2022, there will be two classes every Friday	1
Endodontics	From February 13 to April 3, 2023, there will be two classes every Monday	1
Research on periodontal and oral mucosal diseases	From February 13 to April 3, 2023, there will be two classes every Tuesday	1
Cariology Research	From February 13 to April 3, 2023, there will be two classes every Wednesday	1
Basic and research of maxillofacial surgery	From February 13 to June 12, 2023, there will be two classes every Thursday	2
Research on Prosthodontics	From February 13 to April 3, 2023, there will be two classes every Friday	1
oral implantology	From April 10 to June 12, 2023, there will be two classes every Monday	1
Orthodontics Research	From April 10 to June 12, 2023, there will be two classes every Tuesday	1
Esthetic Dentistry	From April 10 to June 12, 2023, there will be two classes every Wednesday	1

Research Office, School of Stomatology, Wuhan University

June 20, 2022

