


Crown test on Simodont
3 years' experience



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Institute of education
Simodont R&D




ACTA's curriculum

Bachelor
3 years
Preclinical courses
Department leading


Master
3 years
Clinic / Patient care
Integration




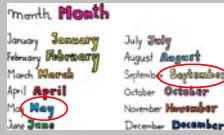
Introducing new technology

Developer usage -> evidence
Teacher evidence -> usage












Acceptance by staff

Adding a procedure in a new world (VR) is easier than moving a procedure from the existing world to a new world (VR).



Test design in the real world

- Extracted tooth, criteria, no standard
- Plastermodel
- Scheduled test (in the clinic), supervision
- Two teachers
- Lot of paperwork

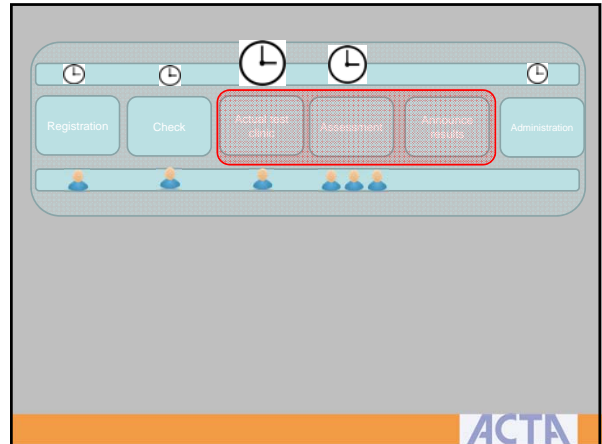


Test on simodont

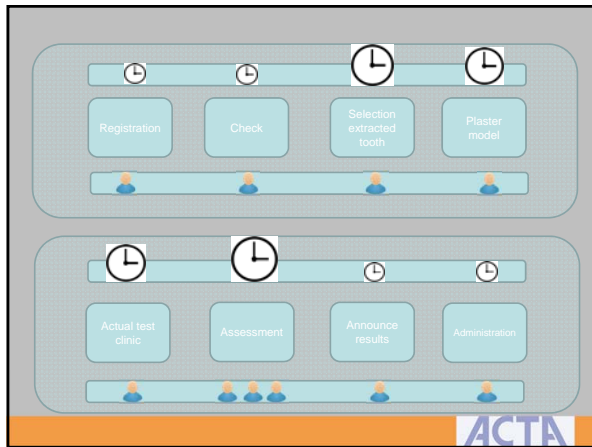
- Standard tooth (36/46)



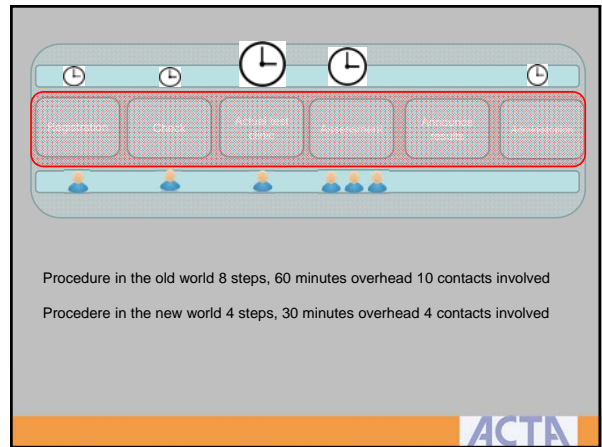
ACTA



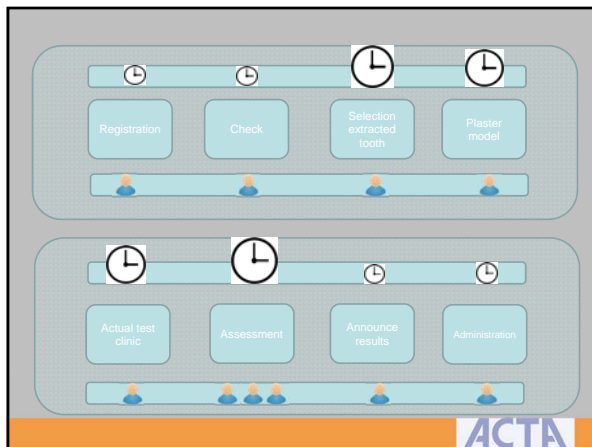
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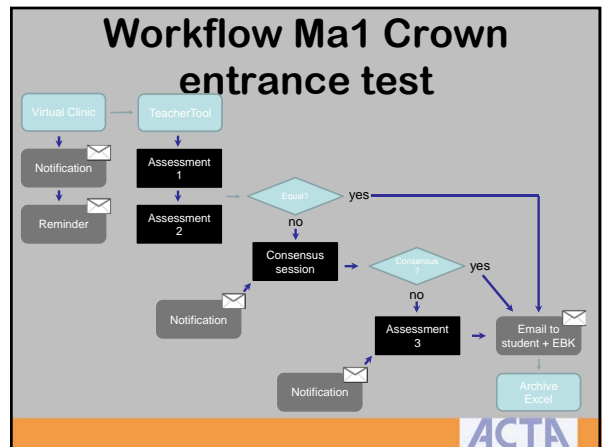
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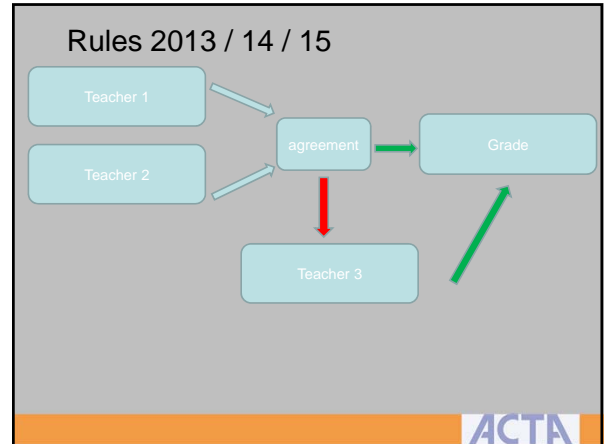
ACTA

Logged on user: []

Group: A Ma1 TOETS kroon entree (2015-2016)

Case: CRW001011

To review (23)	Reviewed snapshots (1)	Consensus (0)	MA2 Exit (0)	Bachelor stage: 100	Feedback
216271 1/26/2016 2:27:40 PM		Review			
216270 1/26/2016 2:27:41 PM		Review			
216272 1/26/2016 2:28:08 PM		Review			
216273 1/26/2016 2:32:47 PM		Review			
216268 1/26/2016 3:00:21 PM		Review			
216269 1/26/2016 3:02:51 PM		Review			
216291 1/28/2016 12:04:01 PM		Review			
216290 1/28/2016 1:57:44 PM		Review			



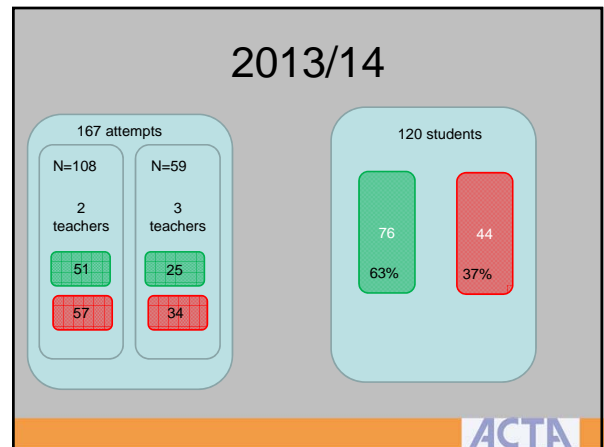
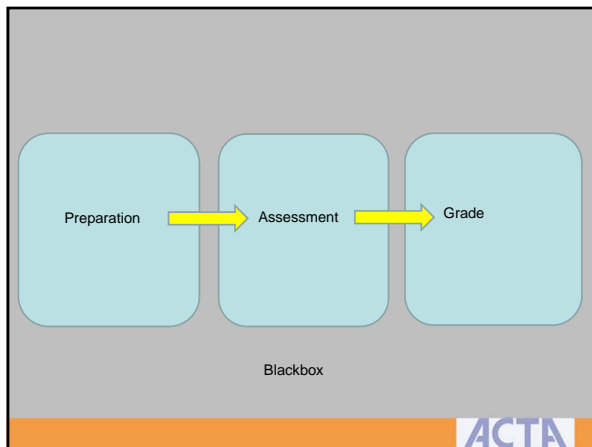
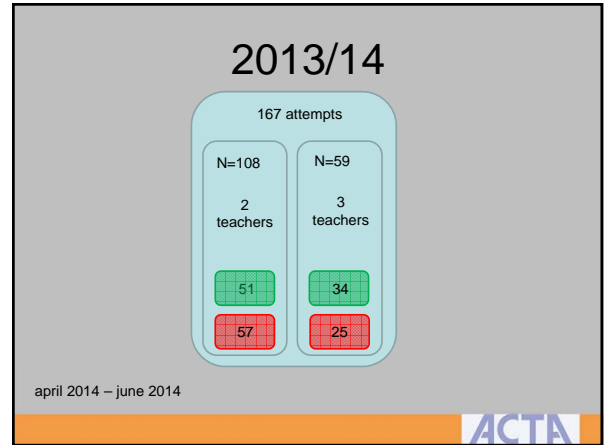
Assessment:

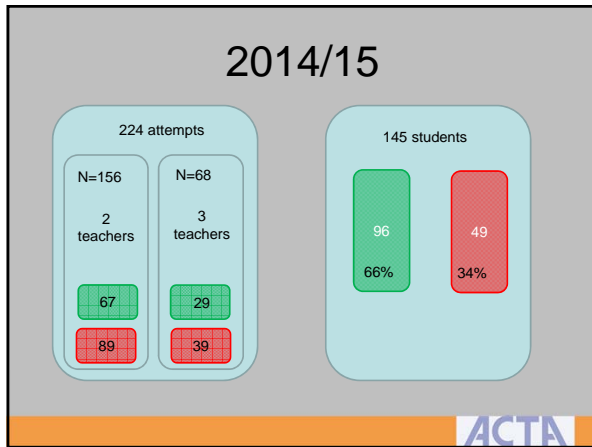
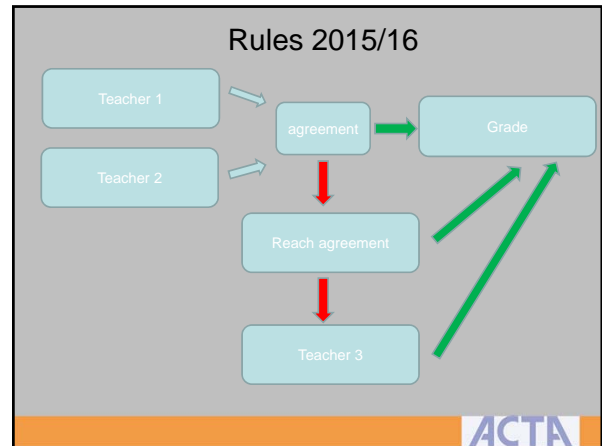
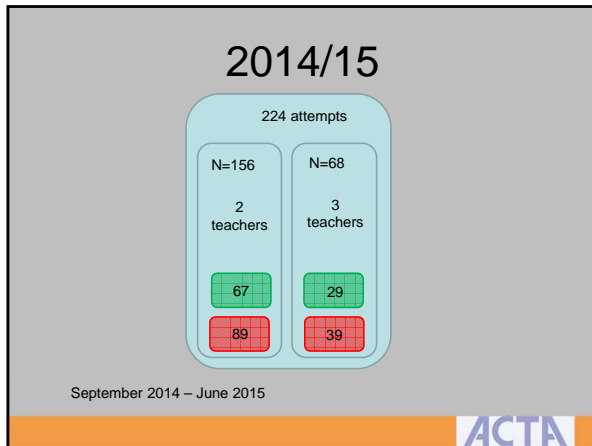
- A-Criteria
 - ✓ Inhoudelijke waarde
 - ✓ Onderwijs
 - ✗ Niet voldoende beschrijving voorbeelden
- B-Criteria
 - ✓ Methode
 - ✗ Plaatje schouder
 - ✗ Inhoudig/nut

Commentaar:

tools: convergentiemeters, preparatiemeters, preparatiemeters

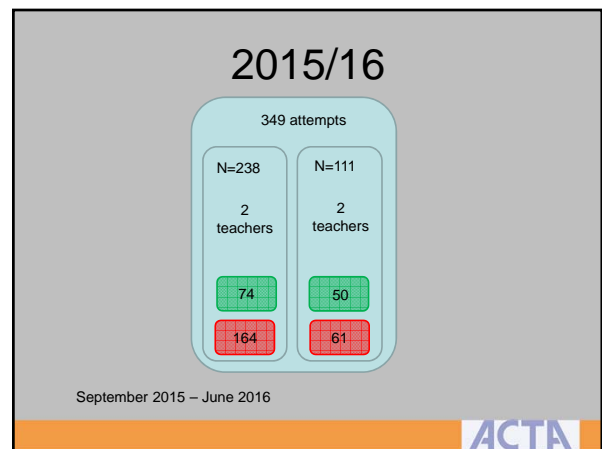
outline antagonist

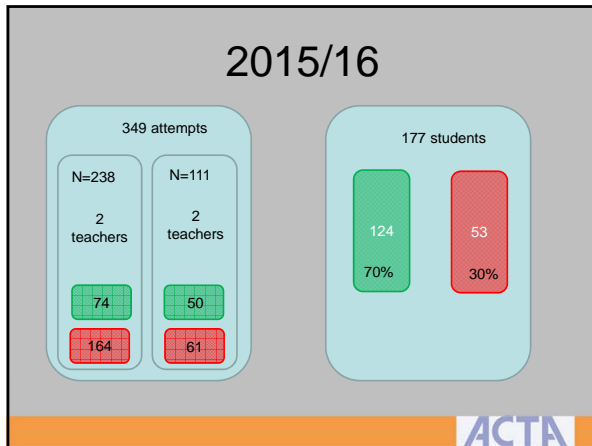




- Rules were changed
 - All preparations were assessed by two teachers
 - Teachers were forced to tune with each other (calibration incorporated in the workflow)
-

- ### Points to improve
- No mutual agreement
 - High rate of third assessment
 - No learning effect / calibration
-





Planned intervention 2016/17

- Workflow offers the option 'no grade' to the student.
- And the workflow offers the option 'can be improved' to the teacher.

Observations

- Staff calibration that was forced by the workflow resulted in decrease of third assessments during the year.
- Most of the preps failed due to insufficient occlusal reduction.
- The workflow forces to submit every preparation even if the student knows the prep fails

- Digital impression
- Virtual training
- Clinical application


Next intervention (> 2017)

- Replacement of the standard virtual crown test by mandatory individual test
- Scanning the patient
- Importing into the simodont
- Successful practicing the preparation in the virtual reality.

Key factors for succes

Virtual crown test is succesfully implemented at ACTA.

1. No interference with existing program, nobody is offended
2. Automated workflow of the teacher tool makes life easier
3. Formative test (no limit on attempts) no threat to the students

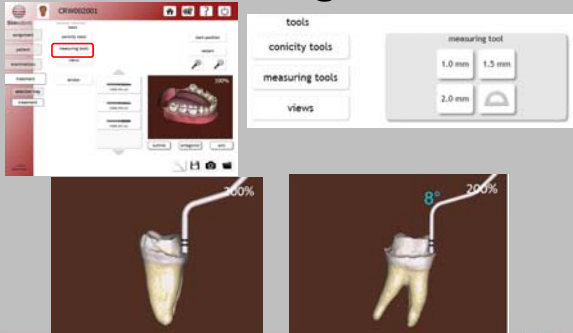


Augustus 2016 the student graduated that passed the first crown prep exam (2014) in virtual reality in the world.

Thanks for your attention

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Measuring tools



tools

- conicity tools
- measuring tools
- views

measuring tool

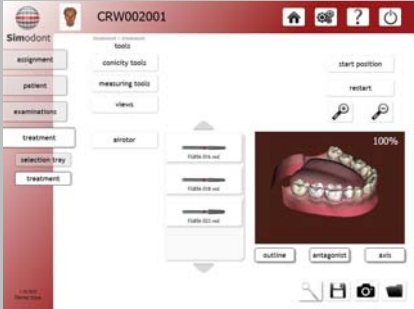
- 1.0 mm
- 1.5 mm
- 2.0 mm

100%

8° 200%

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Drilling



CRW002001

tools

- conicity tools
- measuring tools
- views

start position

restart

rotation

100%

outline antagonist axis

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Conicity tools



tools

- conicity tools
- measuring tools
- views

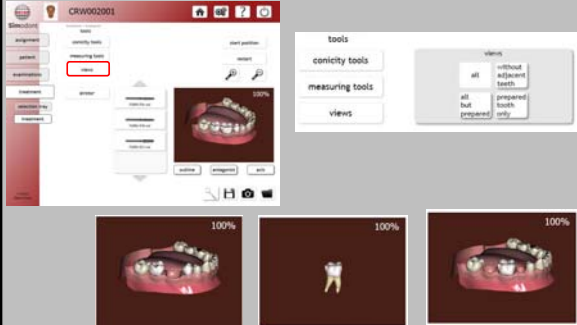
conicity tool

- 4°
- 6°
- 8°
- 10°

200%

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Views



CRW002001

tools

- conicity tools
- measuring tools
- views

views

- all
- without adjacent teeth
- all prepared teeth
- prepared only


100%

100%

100%

ACTA

Views



outline antagonist axis

200%

200%

200%

ACTA

<p>Strong points</p> <ul style="list-style-type: none">• Management info• Transparency• Workflow management• On demand• Digital storage	<p>Weak points</p> <ul style="list-style-type: none">• Reality (smoothness, limitation, mirror, stability)• Not yet evidence
<p>Opportunities</p> <ul style="list-style-type: none">• Competency level• Quality improvement• Variety of procedures	<p>Threats</p> <ul style="list-style-type: none">• Faculty resistance• Student resistance

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