EDUCATION & TRAINING FOUNDATION

CENTRES FOR EXCELLENCE IN MATHS

CENTRES FOR EXCELLENCE: **NETWORKING** & IMPACT OF ACTION RESEARCH

NANAMIC CONFERENCE, 14/07/21

VIV KIMENG, CENTRE LEAD HARLOW

Discussion points

Background

Why Networking

Action Research

Challenges

CENTRES FOR EXCELLENCE IN MATHEMATICS (CFEM)

CENTRES FOR EXCELLENCE IN MATHS

- Delivering a step change in maths teaching to Level 2, with a focus on 16-19 FE students
- Funded by the DfE and delivered by ETF and its delivery partners
- Involves 21 centres (colleges) across England, working with local networks
- 5-year project, 2018-23

KEY THEMES

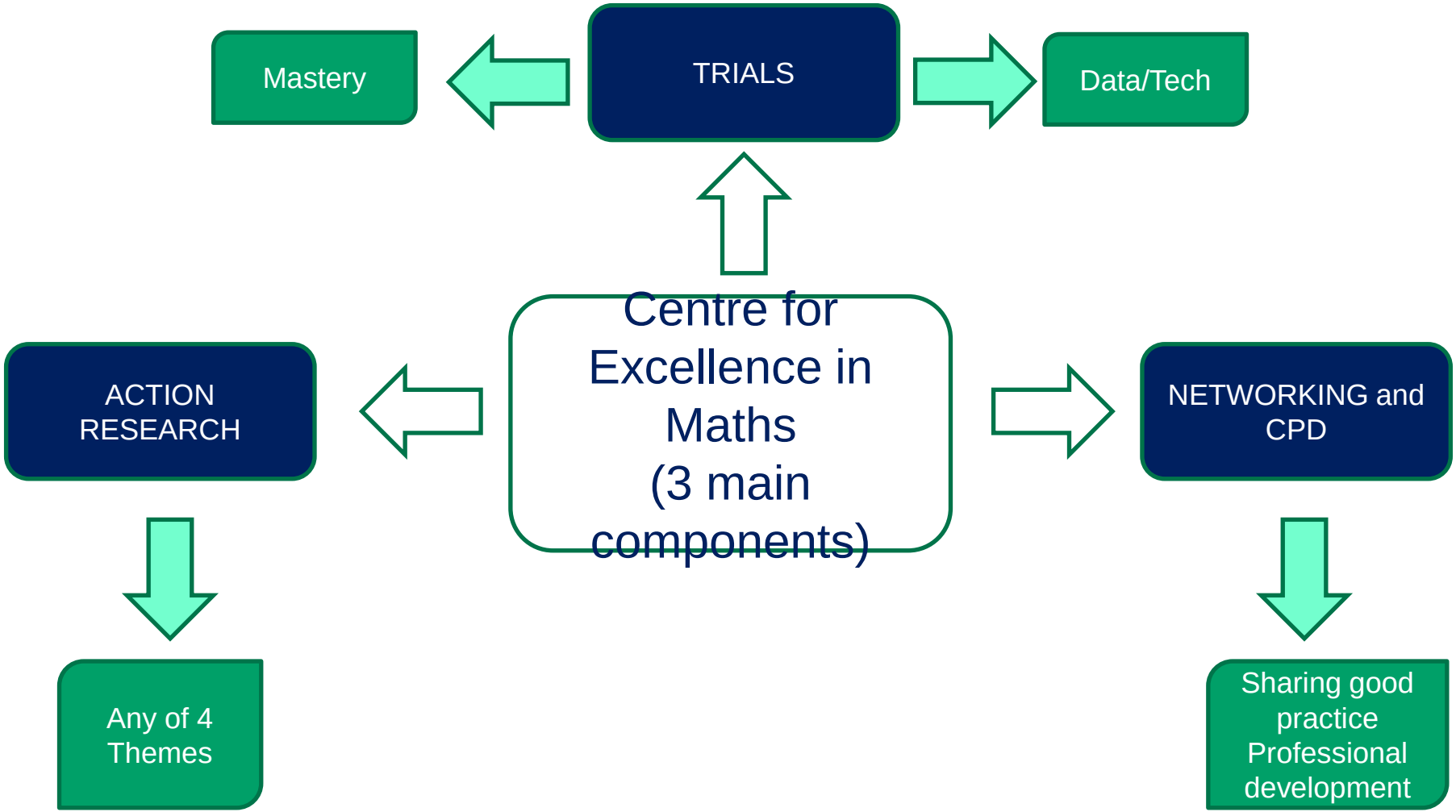
CENTRES FOR EXCELLENCE IN MATHS

Mastery Techniques	An adapted approach to mathematics mastery, suitable for post-16 learners, which supports learners develop deeper understanding of maths.
Motivation & Engagement	Motivation and engagement approaches for learners which engender positive emotions and resilience with regard to mathematics.
Contextualisation	Approaches to learning which draw on context(s) to enhance mathematical understanding and support contextual problem solving.
Technology & Data	The use of technology and data, focussing on its use within the classroom to target learning and enhance conceptual understanding.

AIMS AND VISIONS - HARLOW COLLEGE

CENTRES FOR EXCELLENCE IN MATHS

- Improve step-change in L2 GCSE and FS Maths
- Improve teaching, learning and assessment in Maths
- High-quality resources
- Effective teaching & learning approaches
- Professional Development
- Improvement in achievement and attainment in Maths


Mastery
TRIALS
Data/Tech
Centre for Excellence in Maths (3 main components)
ACTION RESEARCH
NETWORKING and CPD
Any of 4 Themes
Sharing good practice Professional development

CFEM HARLOW NETWORK PARTNERS

Northampton College	Herts Regional college	West Herts College
USP College	South Essex College	North Herts College
Colchester Institute	Capel Manor	Essex ACL
Colchester sixth form college	Buckinghamshire group	Barking & Dagenham College
Chelmsford college	Oakland College	Luton Sixth Form College

NETWORKS & WHY JOIN A NETWORK?

CENTRES FOR EXCELLENCE IN MATHS

- FREE access to local & national maths CPD
- Share practice with other organisations & receive updates through CfEM network meetings
- Opportunities to participate in action research projects, with paid staff release

ACTION RESEARCH CARRIED OUT BY HARLOW & NORTHAMPTON COLLEGES

CENTRES FOR EXCELLENCE IN MATHS

- 1:1/small group intervention
- -Maths Labs vs Maths Clinics
- Safe space for learners to discuss
- Peer to peer discussion
- Dialogic approach

COMPARISON TWO MODELS

CENTRES FOR EXCELLENCE IN MATHS

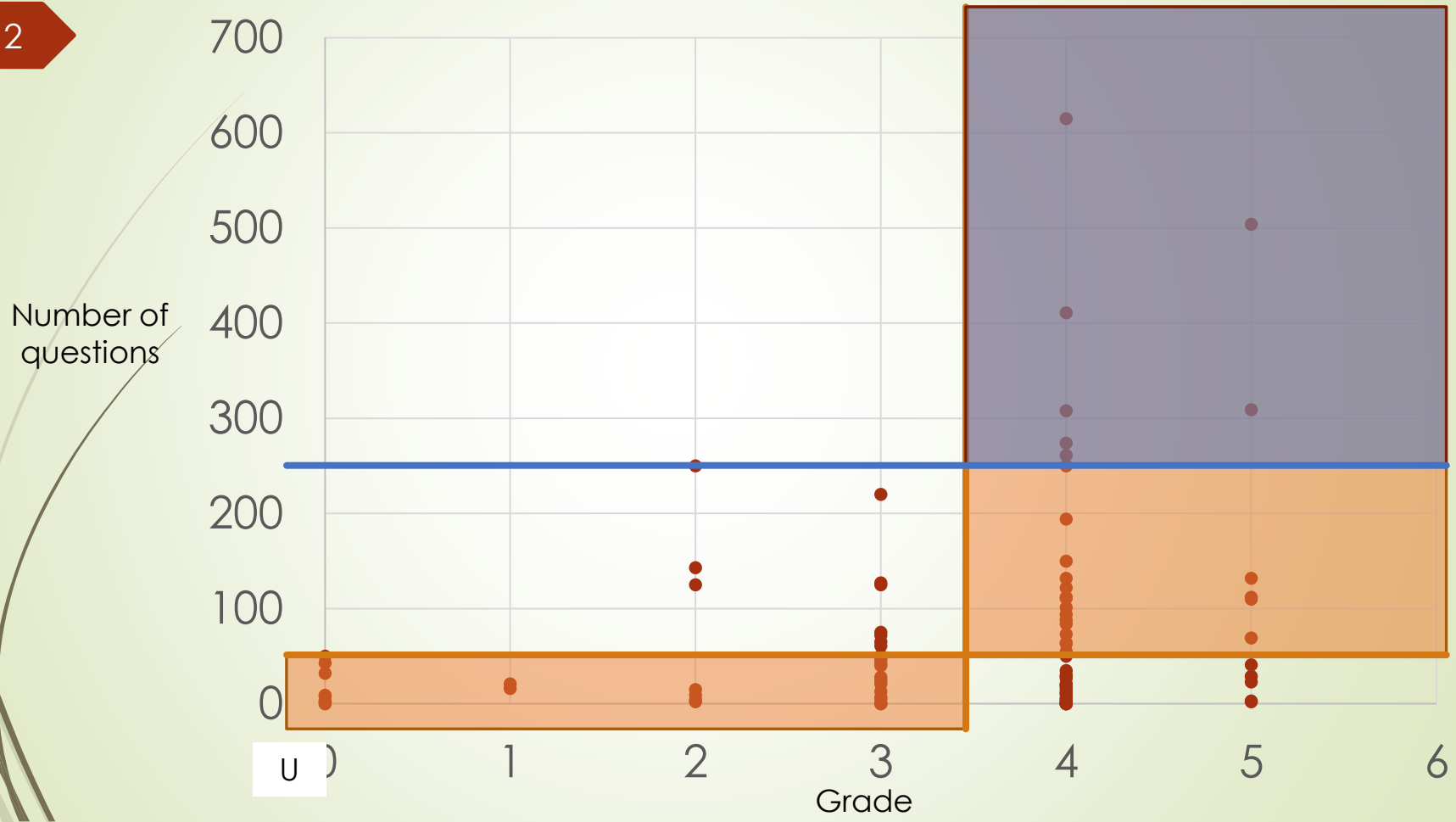
Northampton College Maths Lab	Harlow College Maths Clinics
Designated Learning Space separate to the classroom	Take place in the classroom environment
Delivered by an Academic Coach	Delivered by the Maths Teacher
Students sent to the lab or 'drop in'	Maths Teacher identifies students to attend
Sessions take place around the study programme timetable	Sessions take place after the Maths lesson
During pandemic – delivery has switched between face to face and online in response to states of lockdown	Sessions have been completely online.

ACTION RESEARCH – HARLOW AND USP

CENTRES FOR EXCELLENCE IN MATHS

- Use of Technology
- Blutick
- Nearpod
- comparison

Number of Questions (on Blutick) vs Grade



HARLOW COLLEGE ACTION RESEARCH

CENTRES FOR EXCELLENCE IN MATHS

– What worked well …..

- Teaching Strategies

  - Dialogic Approach

    - Diagnostic approach (gap filling)

  - Responsive teaching using formative/diagnostic assessment

ACTION RESEARCH AND FINDINGS

CENTRES FOR EXCELLENCE IN MATHS

– Even Better…..

- More Student led

  - Less PowerPoint

    - Few and simple teacher notes

HARLOW CCFEM AR PROJECTS 2021/22

CENTRES FOR EXCELLENCE IN MATHS

1	Investigation into whether Increase in the Growth Mindset can improve students' achievement and progression in GCSE Maths	
2	Realistic Mathematics Education (RME)	

LIMITATIONS AND CHALLENGES

CENTRES FOR EXCELLENCE IN MATHS

- Timetabling – opportunities for planning collaboratively
- Difficulties of attending CPD sessions and other events
- Data not collected in its entirety

EDUCATION & TRAINING FOUNDATION

CENTRES FOR EXCELLENCE IN MATHS

OTHER PARTNERS INVOLVE INCLUDE:

ETFOUNDATION.CO.UK

OUR PARTNERS

ACC Association of Colleges
The Behavioural Insights Team
eedi
Pearson
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White Rose Maths

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