The University of Melbourne acknowledges the Traditional Owners of the unceded land on which we work, learn and live: the Wurundjeri Woi-wurrung and Bunurong peoples (Burnley, Fishermans Bend, Parkville, Southbank and Werribee campuses), the Yorta Yorta Nation (Dookie and Shepparton campuses), and the Dja Dja Wurrung people (Creswick campus).

The University also acknowledges and is grateful to the Traditional Owners, Elders and Knowledge Holders of all Indigenous nations and clans who have been instrumental in our reconciliation journey.

We recognise the unique place held by Aboriginal and Torres Strait Islander peoples as the original owners and custodians of the lands and waterways across the Australian continent, with histories of continuous connection dating back more than 60,000 years. We also acknowledge their enduring cultural practices of caring for Country.

We pay respect to Elders past, present and future, and acknowledge the importance of Indigenous knowledge in the Academy. As a community of researchers, teachers, professional staff and students we are privileged to work and learn every day with Indigenous colleagues and partners.

From managing to leading: A mathematics leadership continuum

MAV Conference 2024

Kate Copping

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Today's session

- Middle Leadership

- Understanding ourselves as Mathematics Leaders

- Experiences of Mathematics Leaders

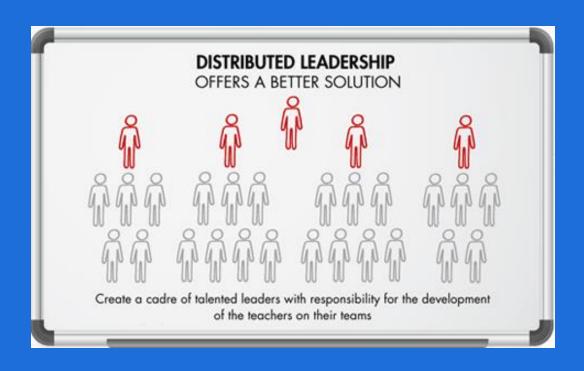- Setting goals for your Mathematics Leadership

Most teachers don't enter education to become leaders, they enter to become teachers

Garnett, 2012

Who are we as Mathematics Leaders?

Middle Leadership

DISTRIBUTED LEADERSHIP
OFFERS A BETTER SOLUTION

Create a cadre of talented leaders with responsibility for the development of the teachers on their teams

https://www.forbes.com/sites/baininsights/2016/04/21/how-distributed-leadership-can-help-improve-schools-infographic/
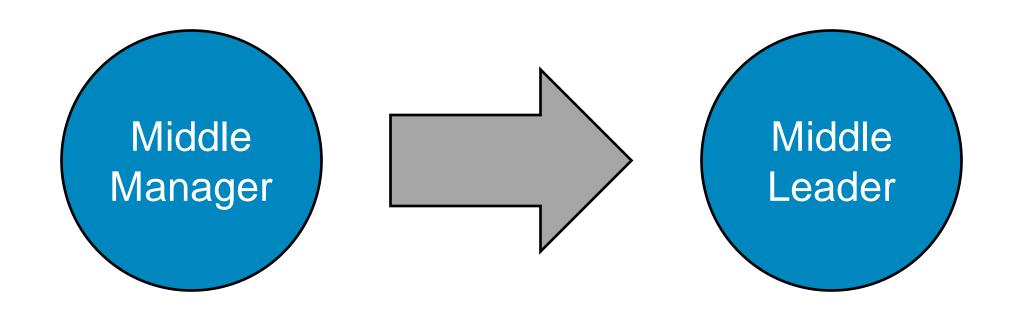
- Principal leadership has a huge impact on the effectiveness of the teaching and learning that (Kenneth Leithwood, Harris, & Hopkins, 2008).

- The most effective school leaders also empower others through distributed leadership (Dinham, 2007),

- Some models of distributed leadership ignore middle leaders, such as curriculum leaders. (Gurr, Jacobson, & Drysdale, 2013)

- Teachers that take on the roles of middle level leaders also take on the responsibility for both the leadership and management of programs and/or learning areas.

Middle manager to Middle leader

Middle Manager → Middle Leader

There has been a progressive shift in the role from a middle manager of mathematics to a middle leader of mathematics, which differentiates between the administrative aspects of the role to a more strategic leadership focus.

The role of a middle leader

"They do the work that senior managers cannot do due to their expanding roles and responsibilities. They manage the processes that allow schools to run smoothly, complete administrative tasks that allow teaching and learning to be well resourced and influence teacher performance and student outcomes in positive, productive ways." (De Nobile and Ridden, 2014, p. 23)

Leithwood et al. (2008)

- Building the vision and direction
- Understanding and developing people
- Organisational change
- Overseeing teaching and learning

Gurr and Drysdale (2013)

- Focus on student learning
- Interpersonal skills
- Professional
- Allocate resources
- Foster teacher learning
- Promotion and advocacy of area
- Shared vision and purpose
- High expectations

De Nobile (2017)

- Student focus
- Administration
- Organisation
- Supervision
- Staff development
- Strategy

Comparison of middle level leader roles and capabilities

The role of a middle leader

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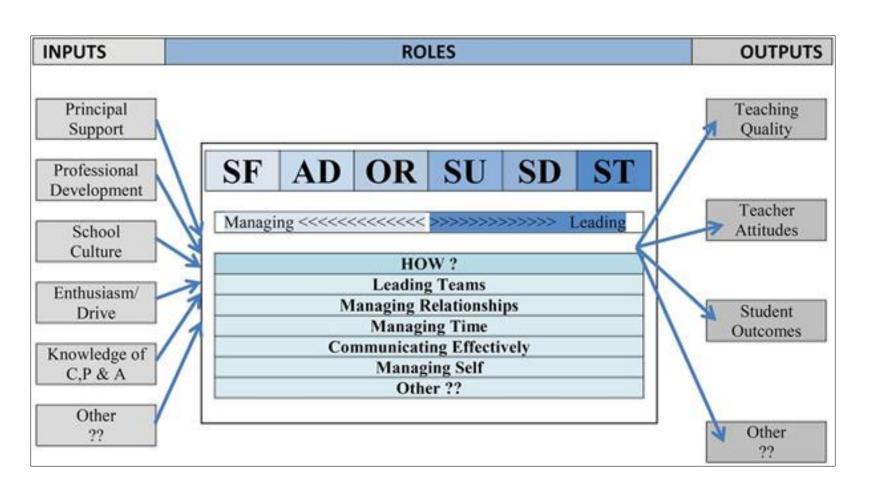- Shared vision and purpose
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Comparison of middle level leader roles and capabilities

What does the MLiS model look like?

INPUTS	ROLES						OUTPUTS

Principal Support
Professional Development
School Culture
Enthusiasm/ Drive
Knowledge of C,P & A
Other ??

SF | AD | OR | SU | SD | ST

Managing <<<<<<<<<<<<< >>>>>>>>>>>> Leading

HOW ?
Leading Teams
Managing Relationships
Managing Time
Communicating Effectively
Managing Self
Other ??

Teaching Quality
Teacher Attitudes
Student Outcomes
Other ??

- •Student focus
- •Administration
- •Organisation
- •Supervision
- •Staff development
- •Strategy

Theoretical model of Middle Leadership in Schools (MLiS) (De Nobile, 2017, p.400)

Conceptual framework

Student Focussed	Administrative	Organisational	Supervisory	Staff Development	Strategic
* Student behaviour * Student academics * Assisting students * Home-School liaison * Other student issues	* Record keeping * Record creation * Creating/maintaining admin tools (eg forms) * Keeping inventory * Orders & purchases	* Timetables & rosters * Agendas & itineraries * Curriculum planning * Setting up teams or committees	* Grade/stage supervision * Subject supervision * Monitor performance * Providing feedback * Discussing tasks and Performance * Appraisal	* Coaching staff * Advising staff * Demonstrating * Modelling * Induction/Mentoring * Leading staff Development	* Establish and share Vision for area of resp. * Goal-setting * Leading innovation and change * Inspiring peers * Heading teams related to the above
Management	<<<<<<<<<<<<<<<<	<<<<<<<<<<<<<<<<	>>>>>>>>>>>>>>>>	>>>>>>>>>>>>>>>>	**Leadership**

De Nobile, 2019

Definition of a mathematics leader

Teachers who have a formal and significant responsibility for improving student learning through mathematics education leadership of: teaching teams, curriculum, resourcing, planning, instruction and assessment processes within the school.

Copping, 2019

Student Focussed

Student Focus: Working with students, often to do with welfare, monitoring academic achievement and liaison between the home and school (de Nobile, 2017)

"I teach learning support for students that are struggling with mathematics and are behind their classmates."

"Communicating each week's teaching and learning summary of Maths to engage parents and carers."

* Student behaviour
* Student academics
* Assisting students
* Home-School liaison
* Other student issues

Administrative

Administrative role: Develops policies and procedures and manages the budget to ensure the efficient use of time and resources (de Nobile, 2017)

"Maintaining budget and resources"

"Developing processes and protocols for observation and feedback of teacher practice and peer collaboration"

"Have processes that support staff in the nitty gritty of planning and teaching"

* Record keeping
* Record creation
* Creating/maintaining
  admin tools (eg forms)
* Keeping inventory
* Orders & purchases

Organisational

Organisation: The organisation of people through timetables and planning and implementing programmes and activities, often in collaboration with others (de Nobile, 2017).

"Developing and promoting school-wide professional learning structures"

"I also run sessions for parents at both Prep and Year 1"

"Organisation of resources"

"Overseeing the K-6 mathematics curriculum, assessment and improvement strategy."

* Timetables & rosters
* Agendas & itineraries
* Curriculum planning
* Setting up teams or committees

Supervisory

Supervision: Involves evaluating staff performance usually through classroom observations, feedback, monitoring, and professional discussion and reflection (de Nobile, 2017).

"Supporting teachers to seek, analyse and act on feedback on their practice"

"Provide professional support to colleagues to strengthen their Maths teaching pedagogy"

"Lead and collaborate with staff to build teaching practice and learning outcomes"

"Seeking feedback from other teachers and leaders on their own classroom practice as part of critical reflection and inquiry to improve practice"

* Coaching staff
* Advising staff
* Demonstrating
* Modelling
* Induction/Mentoring
* Leading staff
  Development

Staff Development

Image: https://www.ssww.com/blog/the-importance-of-professional-development/

* Coaching staff
* Advising staff
* Demonstrating
* Modelling
* Induction/Mentoring
* Leading staff
  Development

Staff Development: involves building the capacity of staff through modelling best practice, mentoring and coaching, encouragement and moral support (de Nobile, 2017).

"Modelling exemplary classroom practice including through teaching demonstration lessons in both Literacy and Numeracy"

"Source or provide PD for classroom teachers and learning support teachers to improve teaching practice"

"My role has been to support teachers when planning/ in class and via PLC or within whole school professional development to approach mathematics learning as a problem solving experience"

"I now coach, plan with and lead staff in maths education at our school"

Strategic

Strategic Role: Involves developing vision and goal setting through influencing and motivating others, gaining staff 'buy-in' and implementing change (de Nobile, 2017).

"Target specific areas of the AIP related to maths with the aim of building consistency across our school"

"Leading and Managing change structures"

"I think a good leader has a vision of what they want maths at their school to 'look' like"

"Being able to bring teachers along in the journey of trialling new ways of teaching and implementing evidence based practices"

"Approachable, knowledgeable and have a school wide vision for improving maths teaching and learning"

"Good leadership in this area requires good communications skills and a willingness to proactively check in with your staff"

* Establish and share Vision for area of resp.
* Goal-setting
* Leading innovation and change
* Inspiring peers
* Heading teams related to the above

Teaching and Learning

"Assisting with planning across the school"

"My role has been to support teachers when planning/in class and via PLC"

"Working in collaboration with teachers to analyse learning data, identify gaps and strengths and plan targeted program"

"Being able to analyse data. Being able to interpret that data to identify needs at your school."

"To work with teams to look at their data and allow that to really drive what needs to come next for each student"
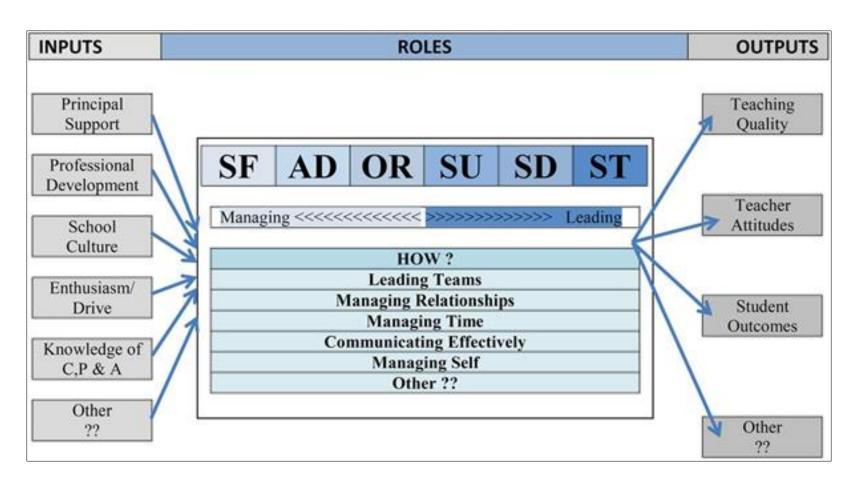
Where are you on the continuum?

Student Focussed	Administrative	Organisational	Supervisory	Staff Development	Strategic
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Management	<<<<<<<<<<<<<<<<<	<<<<<<<<<<<<<<<<<	>>>>>>>>>>>>>>>>>	>>>>>>>>>>>>>>>>>	**Leadership**

De Nobile, 2019

What impacts your mathematics leadership?

Theoretical model of Middle Leadership in Schools (MLiS) (De Nobile, 2017, p.400)

- Student focus
- Administration
- Organisation
- Supervision
- Staff development
- Strategy

Complex and interrelated responsibilities

How you can lead

- Leading teams
- Managing relationships
- Managing time
- Communicating effectively
- Managing self

Inputs

- Principal support

- Professional development

- School culture

- Enthusiasm/drive

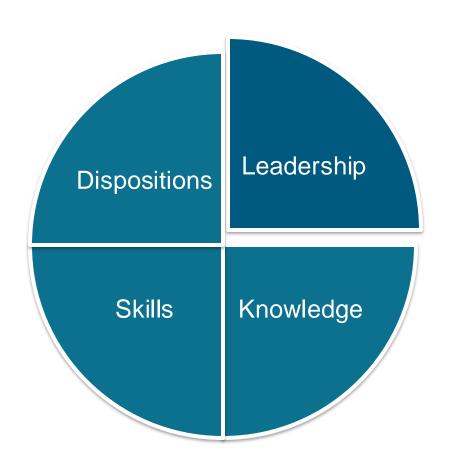- Knowledge of content, pedagogy and assessment

Outputs

- Teacher quality
- Teacher attitudes
- Student outcome

Becoming a primary mathematics leader

"Most teachers don't enter education to become leaders, they enter to become teachers"

Garnett, 2012

Questions

App Download Instructions

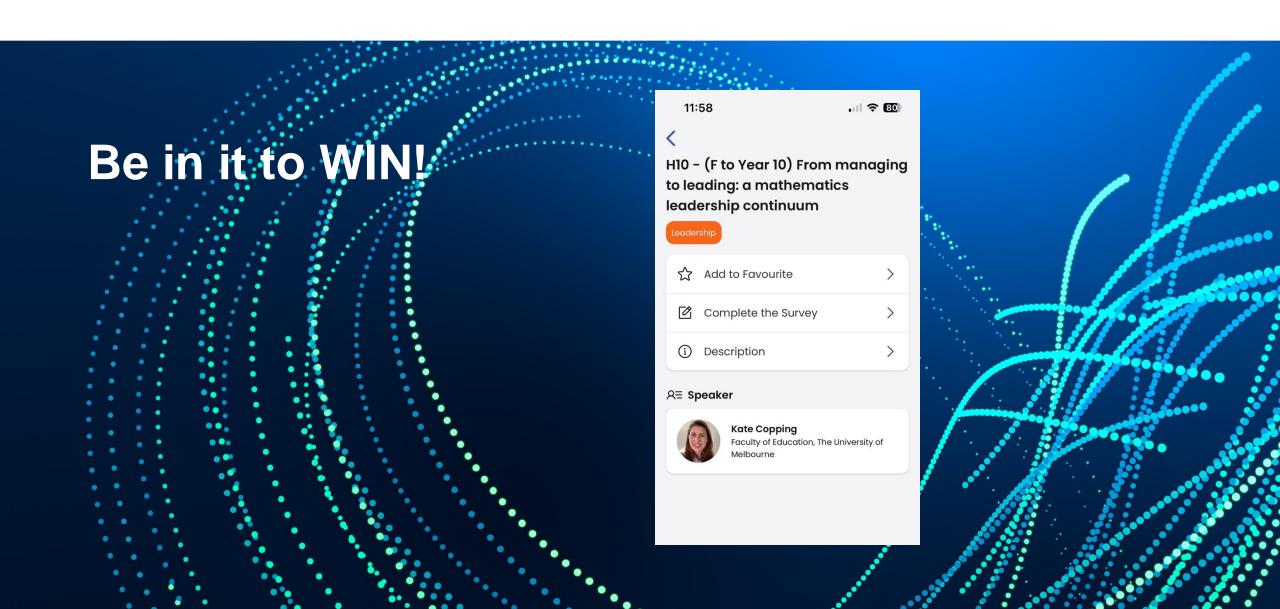Step 1: Download the App 'Arinex One' from the App Store or Google Play

App Store

Google Play

Step 2: Enter Event Code: **mav**
Step 3: Enter the email you registered with
Step 4: Enter the Passcode you receive via email and click 'Verify'. Please be sure to check your Junk Mail for the email, or see the Registration Desk if you require further assistance.

Event App

Thank you

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MELBOURNE

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