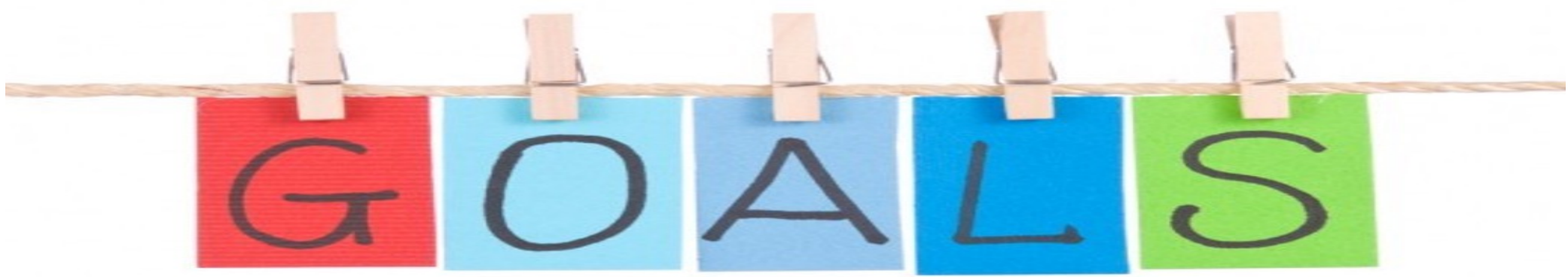


# Oakhill Drive's Problem of Practice

**Is the learning rigorous for all our students?**

- *Do students know what they are supposed to learn, why they are learning it, and how they will know they have learnt it?*
- *Who is carrying the cognitive load?*
- *Are students required to explain, analyse, generalise and justify their thinking?*





- Identify rigour in the instructional core – specifically making connections between questioning, accountable talk and ensuring rigour for all students and relate this understanding to our observations of lessons at ODPS.
- Analyse and explain the value of creating a rigorous environment for all students.
- Consider and propose the possible next level of work for Oakhill Drive, you as a teacher and/or school leader, and your school.

**What will the success criteria be?**

# How would you explain rigour ?

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To a:

1. Student
2. Parents
3. A newspaper reader
4. Your family or friends at a bbq.

*Do tell me Susie, what been happening at Oakhill Drive?*



# At Berowra PS we looked at Rigour as:

Creating an environment in which each student is:

- Expected to learn at high levels
- Supported to learn at high levels and
- Demonstrates their learning at high levels.

Barbara Blackburn



How we teach it!

Classroom culture

High expectations

Connections

Productive  
struggle

Feedback

Challenge

Growth mindset

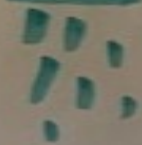
Rich tasks

I do... we do...  
you do...

Rigour

Maths  
exercises

d  
es f  
on  
on



# Rigour

Growth mindset

Questioning

Teacher to student  
Student to teacher  
Student to student  
Facilitative rather than  
all enabled

## Example

- Productive Struggle
  - try and to that activity and take pleasure before you've finished
- Rich tasks
  - open ended
  - low floor high ceiling
  - high student clarity
- Worthwhile lesson
  -
- Assessment
  - Summative - compare others

## Non example

- Maths exercises
  - procedural thinking
- Challenge
  - Depends on the level of challenge
  - no clear enough scaffolding in the challenge just look at the "big idea"
- I do, we do, you do
  - task or concept dependent
- Procedural fluency

Launch, explore, summarise

Complexity

Difficulty

A course lesson focuses the majority of a class mathematical task.

Culture  
motivation  
ownership  
empowerment  
growth mindset

Students are productive because  
- receive resources with just enough information

Formative Assessment

Tasks provide entry points for all students  
- low floor high ceiling

Links to rigour..... How?

Rigour → improved fluency

Growth mindset ↔ rigour

Assessment informs  
feedback and  
reflection.

Questioning → builds rigour

Complexity = rigour

Difficulty

Task design

Worthwhile lessons lead to deep thinking.

— surface  
— deep  
— transfer

Creating an environment that is conducive to growth.

Rigorous lessons should build on and extend prior knowledge. They encourage productive struggle. Objectives should be clear.

Every student is capable of rigour.  
(Same just heard)  
more convincing

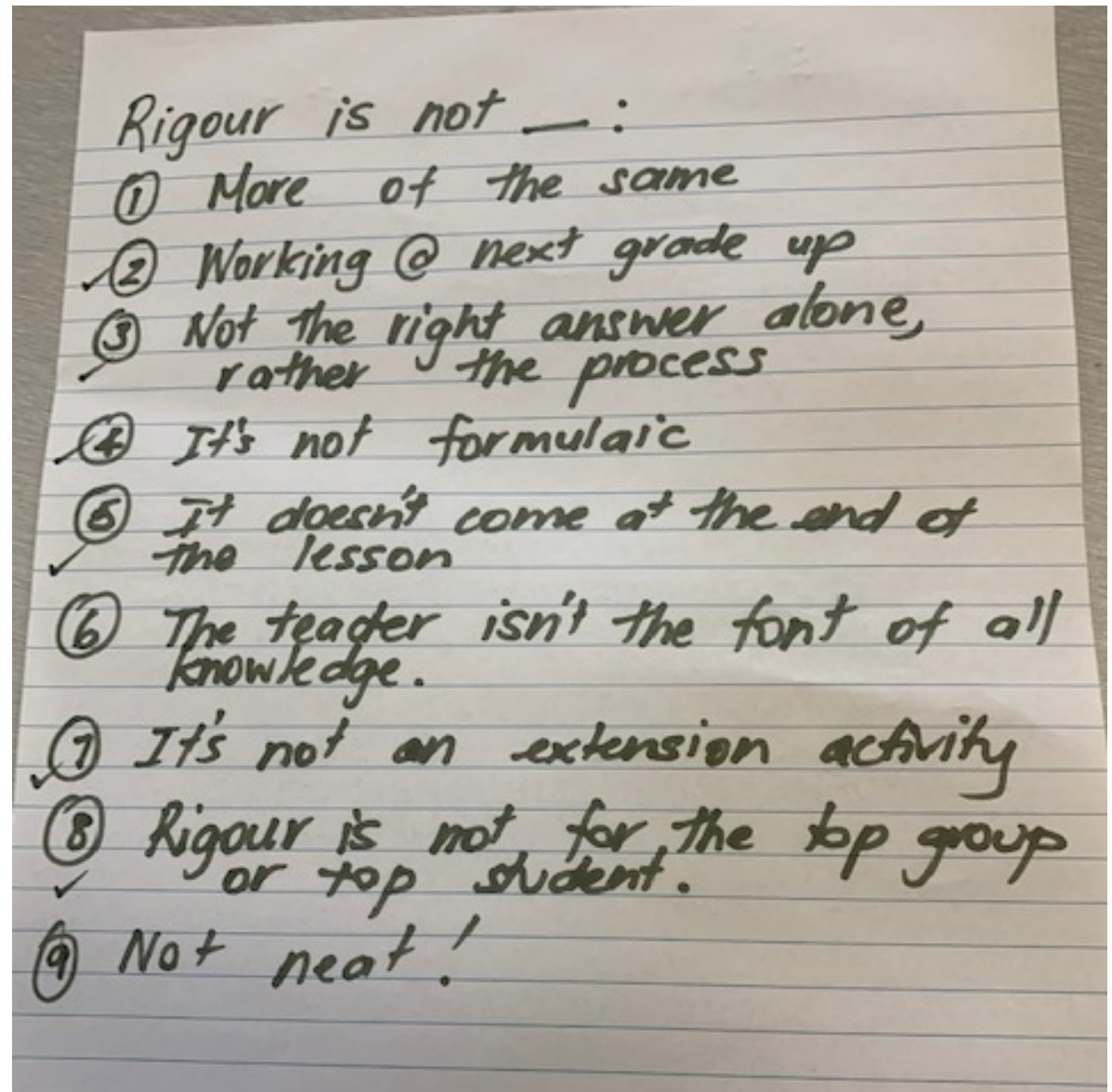
Important to focus on progress, small steps that together show student growth.

Rigour is...

More than what you teach  
It's how you teach + how st show their w/s.

T. shows st they know they can learn + celebrate positives.

At Berowra  
we said:



# Reading

***Deepen our understanding of key ideas and actions from the reading that each group member believes contributes to creating a rigorous learning for all students (something to include in lessons, interested you, challenged you or you disagreed with.)***

Practice using some probing questions to share, clarify and deepen thinking

Take it in turns to share the idea

- Which idea do you want to share?
- Questions – be a prompter or a prober



What  
questions do  
you have?



# X chart - In a classroom where there the learning is rigour for all students

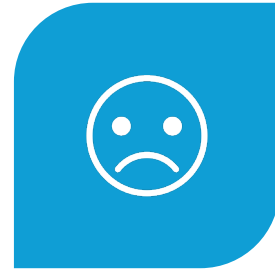
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LOOKS LIKE



SOUNDS LIKE



FEELS LIKE



THINKS LIKE

Do we know what it might ‘sound like’ when students explain, analyse, generalise or justify their thinking?’



**Explain:**

**Analyse:**

**Justify:**

**Generalise:**



**Explain:** Relate cause and effect; make the relationships between things evident; provide why and/or how

**Analyse:** Identify components and the relationship between them; draw out and relate implications

**Justify:** Support an argument or conclusion

**Generalise:** is noticing properties that consistently apply and sometimes defining the nature of those properties.

For example:

- when two odd numbers are added together, the answer is even
- when a number is divisible by 9, it is also divisible by 3

# Name Explain

Identify and explain how something you have planned, observed, said or overheard contributed to rigour for your students!



# Preparing for our classroom observations

# Stay focused on what you see

Focus on the descriptive, rather than other questions that are implicitly running through your head like:

- what do you want to see
- what don't you see what do you think about what you see or
- do you like being in this classroom



**By description, we mean the evidence of what we see, not what we think about what we see.**

***Descriptions that includes judgement***

- T. used effective questioning
  - Fast paced
  - Excellent classroom management
  - Teacher had a good repore with students
  - Teacher used effective questioning techniques with a range of students
  - Teacher read from a book that was not at an appropriate level for the class
-

# By description, we mean the evidence of what we see, not what we think about what we see.

## *Descriptions without judgement*

- T. asked how did you figure out the problem? Student explains
- Task - find different ways to create a total of 31

S1 wrote in maths journal

$$5 + 5 + 5 + 5 + 5 + 1 = 31$$

$$10 + 10 + 10 + 1 = 31$$

S2  $20+9=03$

S3  $41-10=31$

$$2=3 \times 3=16=31$$

S1: What are you supposed to write down?

S2: I don't know

---

# **Remember to focus on students not the teacher**

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**In classrooms most educators naturally tend to focus on the teacher.**





# Focus on students not the teacher

- We're interested in the interactions of the teacher, student and content.
  - Most people don't need to be reminded collect evidence related to the teacher. People do have to be reminded to focus on students.
  - This is particularly challenging if teachers are doing most of the talking during an observation.
  - Remember: Data on what students are doing in the classroom while the teacher is talking could be quite revealing.
-

# Our Protocols

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We don't talk to each other even in a whisper



We hold on to discussing what we've seen until the formal debrief  
Hallway talk can be evidence light and judgement heavy. *E.g.*  
*wasn't that great, or I'd be bored if I was a student in there.*

# Student Questions

---

What are you learning

---

Why is this learning important?

---

What do you need to do to improve  
your

---

What do you do if you get stuck in your

---

**Each observer asks only one student.**



# **CELEBRATION WALL**

## **WHAT MADE YOU GO WOW!**

**Detailed and Specific**

**Learning, Teaching, Environment,  
Relationships, Routines, Scaffolds, Tasks.**



# OBSERVATION DEBRIEF

# Predictions Answer the Question:

*“If you were a student at this school and you did everything you were expected to do, what would you know and be able to do (in light of the patterns observed)?”*



**WHAT ONE CHANGE DOES THE  
GROUP BELIEVE MAY HAVE MADE  
THE LESSON MORE EFFECTIVE?**



# Oakhill Drive Instructional Round

## Day 2

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Connect, Collaborate and Grow Instructional Round Network

**“THE REALITY IS THAT  
RIGOR IS ABOUT STARTING WHERE  
A STUDENT IS IN LEARNING AND  
HELPING THEM GROW TO  
NEW HEIGHTS”**

**- DR. BARBARA BLACKBURN**



What are  
you  
wondering  
after today?



# REFLECTING ON – Day 1

- What has resonated most strongly for you? Why?
- What has changed in your thinking as a result of your learning?



Purpose	Specific Goal or Task Questions will Accomplish and Examples
Elicit Information	<ul style="list-style-type: none"> <li>• <b>Confirm: Recalling and clarifying knowledge</b> <i>What comes next? Could you summarize? What do we know now?</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Procedural: Establishing expectations</b> <i>Can everyone see? Did someone get a different answer? Are you ready?</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Elicit prior experience:</b> <i>What sort of ideas come to your mind when...? What kinds of experience lead people to act that way?</i></li> </ul>
Build Understanding	<ul style="list-style-type: none"> <li>• <b>Generative: Exploring a topic</b> <i>Is there _____? Why do we remember _____?</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Constructive: Building new understanding</b> <i>How could things change...? What could this mean to _____?</i></li> </ul>
	<ul style="list-style-type: none"> <li>• <b>Facilitative: Promoting learner's own thinking and understanding</b> <i>Can you put that in a way that _____ would understand?</i></li> </ul>
Encourage Reflection	<ul style="list-style-type: none"> <li>• <b>Reflective: Challenge to think critically and creatively</b> <i>What patterns do you see here? Can you compare... to ....? What are your questions now?</i></li> </ul>

# A TYPOLOGY of CLASSROOM QUESTIONS

## Generative

Exploring the topic

- Authentic questions or wonders that teacher doesn't know the answer to
- Essential questions that initiate exploration of a topic

## Facilitative

Promotes the learner's own thinking and understanding

- Requesting elaboration, reasons, evidence, justification
- Generating discussion among the class to hear different perspectives
- Clarifying and uncovering

## Constructive

Building new understanding

- Extending and interpreting
- Connecting and linking
- Orienting and focusing on big ideas, central concepts, or purpose
- Evaluating

## Procedural

Directing the work of the Class

- Going over directions and assignments
- Clarifying
- Checking for attention, agreement
- Task completion
- Organizational and management related

## Review

Recalling and reviewing of Knowledge and information

- Terminology
- Procedures
- Content
- Events & Context



# NETWORK PROPOSES THE NEXT LEVEL OF WORK

Considering all the evidence we have collected and analysed related to Oakhill Drive's PoP

- How can they focus their energy and resources to make progress on the problem of practice?
- What (new) knowledge and skills might teachers need, and how might the school support that learning?

# QUESTIONS THAT MIGHT HELP FOCUS DIFFICULT WORK

- What is it we want our students to know & be able to do?
- What do we want our teachers to know & be able to do to sustain effective learning environments for students?
- What do leaders need to know and be able to do to create optimum conditions for teaching and learning?
- In what ways can we ensure teachers and leaders develop the skills they need to be consistently effective?

## **EXAMPLES OF POWERFUL QUESTIONS FROM RECENT ROUNDS**

- **Are our assumptions about our students and parents preventing us from taking important initiatives? How could we explore this?**
- **How can we build our understanding and skill in the explore/monitoring phase of the lesson to ensure formative decisions are made either for small groups or the whole class?**
- **How can we use questioning to encourage and build reasoning in our students?**
- **How can you engage staff in professional learning around challenging and relevant tasks?**
- **How can we ensure professional learning translates into strong classroom practice?**

# Next Rounds



**Week 7 Term 2**

**Wednesday 4 and Thursday 5 September**



**John Purchase PS**