At a job interview...
“...For me learning starts in a space of belonging... love granting students the space to drive their own love watching their own curiosity.”

The first day of...
“I believe learning is one and the same as doing my job right to find your passion you own projects.”

Biography:
Teacher Mind Frames and Belief Systems: Facilitator Guide

ARC Linkage project (2016-2019)

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This research is supported by Australian Research Council’s Linkage Projects funding scheme (project LP150100022). The views expressed herein are those of the authors and are not necessarily those of the Australian Research Council.

Acknowledgments
We would like to acknowledge the co-designers of the workshop: Allison Edwards, Dion Tuckwell and Professor Lisa Grocott from WonderLab, Monash University, in collaboration with the ILETC project directed by Associate Professor Wesley Imms. The workshop has been adapted as a professional development tool by Dr Marian Mahat, author and developer of the facilitator’s guide. We would also like to thank the Australian Science and Mathematics School (South Australia), the Anglican Church Grammar School (Queensland) and Woodleigh School (Victoria) for their feedback and support in trialling the workshops with their teachers.

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OVERVIEW

WHAT IS IT?
The Teacher Mind Frames and Belief Systems workshop invites participants to explore how their beliefs shape the physical and experiential elements of the learning space they practice in. The workshop is based on the premise that teachers who exhibit the teacher mind frames as conceptualised by John Hattie are “more likely to have major impacts on student learning” (p.182). This workshop uses design thinking activities, specifically in the form of a persona tool, to help participants reflect on their mind frames and belief systems and then identify how this shapes their professional and teaching practices in innovative learning environments.

HOW DID WE COME UP WITH IT?
The Teacher Mind Frames and Belief Systems workshop was developed using design thinking principles that move participants between divergent, expansive thinking exercises and convergent, solution-oriented modes of thinking. Adapting a persona tool used in human-centred design to profile a potential educator helps participants empathise with how that individual views an innovative learning environment and the practices within it. The design-thinking approach also takes into account the ever-changing perspectives of diverse people involved through open collaboration.

The workshop begins with the assumption that powerful impacts in the use of innovative learning environments relate to how teachers think. John Hattie describes a teacher’s mind frame as the mediating variable that directs how teachers and school leaders think and act when engaged in all aspects of teaching. This workshop not only helps support the development of reflective practices but also the promotion of teacher agency through collective development and consideration.

WHAT DOES SUCCESS LOOK LIKE?
Teachers come away from the workshop with a shared understanding of how individual teachers’ beliefs about learning shape their teaching. This collaborative workshop is designed to help teachers’ understand the challenges they face through teachers’ collective knowledge and from multiple perspectives. The workshop also creates opportunities to discuss strategies for overcoming challenges. By identifying the opportunities and challenges to their practices—things that they have some control over and can change—teachers are empowered to transform their practices in innovative learning environments.

HOW WILL IT BENEFIT YOU?
This workshop is a reflective exercise that can provide individual teachers with strategies to develop:
- reflective and reflexive practices as one way of delivering evidence-based teaching;
- a practice of self-reflection, self-inquiry and discussion with colleagues; and
- reflections of their teaching practices in innovative learning environments.

WHERE CAN I GET MORE INFORMATION?
For more information please see:


## FACILITATOR’S CHECKLIST

### TIME
Allow a minimum of two hours for this workshop.

### WORKSHOP VENUE
Prepare an area that can accommodate whole group interaction as well as tables and chairs for paired discussion.

### PARTICIPANTS
Participants work individually, in pairs and as a whole group. It is recommended to have a maximum of 20 participants per facilitator.

### MATERIALS TO PURCHASE
- Glue stick
- Pens

### PREPARATION

<table>
<thead>
<tr>
<th>Code</th>
<th>Item1</th>
<th>Format/Preparation</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM01</td>
<td>Teacher persona</td>
<td>A4 double-sided print</td>
<td>Three sets</td>
</tr>
<tr>
<td>TM02</td>
<td>Teacher beliefs and practices</td>
<td>A3 double-sided print, folded on dotted lines</td>
<td>One per person</td>
</tr>
<tr>
<td>TM03</td>
<td>Tetrahedron</td>
<td>A4 single-sided print</td>
<td>One per person</td>
</tr>
<tr>
<td>TM05</td>
<td>Glue stick</td>
<td>To purchase</td>
<td>As needed</td>
</tr>
<tr>
<td>TM06</td>
<td>Pens</td>
<td>To purchase</td>
<td>One per person</td>
</tr>
</tbody>
</table>

1. The resources are supplied at 1:1 scale and should be printed at 100% of the original page size. The ‘Choose paper source by PDF page size’ on PC and ‘Scale to fit paper size’ on OSX in Adobe Acrobat will automatically print multiple page sizes automatically. For more information, please visit https://helpx.adobe.com/acrobat/kb/print-mixed-page-sizesacrobat.html
STEP-BY-STEP GUIDE

As the facilitator, think of what you would like your participants to get out of this. It could be one or a combination of objectives including: developing reflective and reflexive practices as a way of engaging in evidence-based teaching; providing individual teachers with a forum to reflect about their practices and discuss with colleagues the strategies that would support a change in their teaching in innovative learning environments.

The following steps provide a ‘script’ that you could follow when running the workshop. It also provides the recommended time and required resources for each step. You can amend it to suit the audience and/or objective that you have identified prior to the workshop.

**BEFORE THE WORKSHOP**

[10 mins]
TM01, TM02, TM06

» Decide your overall aims for the workshop – what you would like participants to get out of it.

» The Teacher beliefs and practices worksheets (TM02) need to be folded on the dotted lines for distribution in Step 2.

» Distribute and lay out one set of personas (TM01) and pens (TM06) on the tables.

» Welcome participants and direct them to their groups/tables.

**STEP 1: DISCOVER**

[30-45 mins]
TM01, TM06

In pairs, choose a persona and create a biography of a fictitious teacher character. Be creative, think about their experiences, likes and dislikes, hobbies and even pets, if any. Think of what the character would believe in and how they would teach. Complete the template, i.e. the persona’s perceptions of the four elements of the learning space and statements of teaching practices, according to how you think the character would respond.

**Tip for facilitators:**
» The activity seeks to explore how a teacher’s background and prior experiences can illuminate his or her teaching philosophy and potentially underlying beliefs on how learning happens. After the exercise, get participants to share their characters with the whole group.

**Discussion prompts:**
» How do teachers’ background experiences and prior knowledge impact on their beliefs?
» How do these beliefs impact on their teaching practices?

**STEP 2: REFLECT**

[20-30 mins]
TM02, TM06

Individually, develop your own personal biography based on your experiences. This will include details of how long you’ve been teaching, your teaching philosophy, what you would say on the first day of school, what you would say at a job interview. Complete the rest of the template by following the steps (1-4), including rating yourselves against belief and practice statements about teaching. There are no right or wrong answers—the aim is to get you to reflect about your beliefs and practices about teaching. Do not unfold the paper.

**Tip for facilitators:**
» Remember, that the worksheets need to be folded on the dotted lines before distributing to participants. Get participants to follow the steps (1-4) when completing the template.

**Discussion prompts:**
» What are the formative influences, such as parental attitudes, mentors, school experiences, even political beliefs, that you think have had an impact on your teaching?
» How do these beliefs impact on their teaching practices?
Once you have completed step 4, unfold the paper so that step 2 and 4 are now side by side. Each statement represents a belief (step 2) and practice (step 4) within each mind frame as articulated by John Hattie. In an ideal world, your beliefs (step 2) should be aligned to your practices (step 4). Review your belief and practice statements. Do they align? Where is there misalignment? Discuss with the group about how these beliefs and practices impact student learning.

**Discussion prompts:**

» Are your beliefs and practices aligned? If not, why not?

» What are the implications of these to student learning?

**STEP 4: EVOLVE**

[20-30 mins]

TM03, TM05, TM06

Individually, reflect on your teaching philosophy. How does this translate to your desired outcomes in terms of teaching practices and student learning in innovative learning environments? Write down your response in each space. Once you have completed the different components, cut it out and paste the sides to create a tetrahedron.

**Tip for facilitators:**

» Distribute the Tetrahedron (TM03) to participants. One per person.

» You can align this step to the aims you developed prior to the workshop.

**Discussion prompts:**

» How will you use this information to transform your practices in innovative learning environments?

» What does success look like for you?
Ms. Asato

Biography:

“Each week we’ll cover the material you need to pass the exams. Your job is to listen closely, take notes, do your homework. If you work hard, you will get a lot out of class.”

At a job interview I say:

“I love the challenge of breaking content into bite-size chunks but still keeping clear the big picture. I weave in personal stories using narrative to make it illuminating and meaningful.”

The first day of school I say:

“Each week we’ll cover the material you need to pass the exams. Your job is to listen closely, take notes, do your homework. If you work hard, you will get a lot out of class”

How does Ms. Asato believe these elements impact student learning...

Technology infused classrooms

Diverse range of furniture

Reconfigurable learning spaces

Age:

Teaching experience:
Which statement is Ms. Asato likely to most identify with?

1. I know what is optimal and I’ve refined it to work well.
2. I facilitate student learning to the best of my abilities.
3. I seek new methods of teaching and assessing student’s learning.
4. Teachers and students are peers in the feedback equation.
5. Evaluating students’ learning requires two way communication.
6. I break down challenges into manageable bits for my students.
7. I embrace mistakes and encourage learning from failure.
8. I inform parents about their child’s grades and performance.
9. I closely assess how and what students are learning.
10. I engage students in the challenge of the learning.
11. I try to prevent misconceptions and misunderstandings.
12. I encourage parents to engage with how their children are learning.

Assessment is about outcomes of student learning.
**Mrs. Bick**

**Biography:**

“**When a student fully grasps a principle I sense I’ve helped them discover a key. I see my job as all about unlocking his or her potential now and in the future.”**

**At a job interview I say:**

“You will develop the habits of the heart and mind you will need to intellectually and emotionally learn in this class and beyond. We are learning how to learn”

---

**How does Mrs. Bick believe these elements impact student learning...**

<table>
<thead>
<tr>
<th>Element</th>
<th>Really Negative Impact</th>
<th>Slightly Negative</th>
<th>Slightly Positive</th>
<th>Really Positive Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology infused classrooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diverse range of furniture</td>
<td></td>
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</tr>
<tr>
<td>Reconfigurable learning spaces</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Age:**

**Teaching experience:**

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Which statement is Mrs. Bick likely to most identify with?

1. I know what is optimal and I've refined it to work well.
2. I facilitate student learning to the best of my abilities.
3. I seek new methods of teaching and assessing student's learning.
4. Teachers and students are peers in the feedback equation.
5. I seek feedback to assess how I might improve my teaching.
6. I break down challenges into manageable bits for my students.
7. I look for chances to demonstrate different ways of learning.
8. I inform parents about their child’s grades and performance.
9. I engage students in the challenge of the learning.
10. I embrace mistakes and encourage learning from failure.
11. I try to prevent misconceptions and misunderstandings.
12. I closely assess how and what students are learning.
13. Evaluation students' learning requires two way communication.
14. Assessment is about outcomes of student learning.
Mr. Cooper

**Biography:**

- Age:
- Teaching experience:

At a job interview I say:

> “For me learning starts with creating a space of belonging. From there I love granting students the agency to drive their own learning. I just love watching their faces light up with curiosity.”

The first day of school I say:

> “I believe learning and curiosity are one and the same. If I am doing my job right you will get to find your passion and develop your own projects.”

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<table>
<thead>
<tr>
<th>How does Mr. Cooper believe these elements impact student learning...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Really Negative Impact</strong></td>
</tr>
<tr>
<td>Technology infused classrooms</td>
</tr>
<tr>
<td>Diverse range of furniture</td>
</tr>
<tr>
<td>Reconfigurable learning spaces</td>
</tr>
</tbody>
</table>
Which statement is Mr. Cooper likely to most identify with?

1. I know what is optimal and I've refined it to work well.
2. I facilitate student learning to the best of my abilities.
3. I seek new methods of teaching and assessing student’s learning.
4. Teachers and students are peers in the feedback equation.
5. Evaluating students' learning requires two way communication.
6. I break down challenges into manageable bits for my students.
7. I embrace mistakes and encourage learning from failure.
8. I inform parents about their child’s grades and performance.

I seek feedback to assess how I might improve my teaching.
I believe all students can be challenged.
I look for chances to demonstrate different ways of learning.
Assessment is about outcomes of student learning.
I closely assess how and what students are learning.
I engage students in the challenge of the learning.
I embrace mistakes and encourage learning from failure.
I encourage parents to engage with how their children are learning.
Mr. Denn

Biography:

“I am not here to teach you the right answer. You’ll be taught to looking to ask the right questions is such a great feeling. Once they see these multiple interpretative lenses, I feel like my work is done!”

At a job interview I say:

The first day of school I say:

“I love teaching. Watching a student shift from looking to me for answers to looking to ask the right questions is such a great feeling. Once they see these multiple interpretative lenses, I feel like my work is done!”

Diverse range of furniture

- - + +

Reconfigurable learning spaces

- - + +

Technology infused classrooms

- - + +

How does Mr. Denn believe these elements impact student learning...

Really Negative Impact

Slightly Negative

Slightly Positive

Really Positive Impact

Age:

Teaching experience:

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Which statement is Mr. Denn likely to most identify with?

1. I know what is optimal and I’ve refined it to work well.
2. I facilitate student learning to the best of my abilities.
3. I seek new methods of teaching and assessing student’s learning.
4. Teachers and students are peers in the feedback equation.
5. I seek feedback to assess how I might improve my teaching.
6. I believe all students can be challenged.
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15. I encourage parents to engage with how their children are learning.

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Mrs. Ellis

At a job interview I say:
“When you see students enter the class with this idea that they can’t do something and you see them slowly shift their own expectations for themselves. It blows my mind every time.”

The first day of school I say:
“You might think you are here to learn biology...and you are and you will. But more than that you are here to learn how to learn, and to challenge yourself to grow!”

Biography:

Teaching experience:

Age:

How does Mrs. Ellis believe these elements impact student learning...

Technology infused classrooms

Diverse range of furniture

Reconfigurable learning spaces

Real Positive Impact
Slightly Positive
Slightly Negative
Really Negative Impact

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Which statement is Mrs. Ellis likely to most identify with?

1. I know what is optimal and I've refined it to work well.
2. I facilitate student learning to the best of my abilities.
3. I seek new methods of teaching and assessing student's learning.
4. Teachers and students are peers in the feedback equation.
5. Evaluating students' learning requires two-way communication.
6. I break down challenges into manageable bits for my students.
7. I embrace mistakes and encourage learning from failure.
8. I inform parents about their child's grades and performance.
9. I closely assess how and what students are learning.
10. I engage students in the challenge of the learning.
11. I try to prevent misconceptions and misunderstandings.
12. I encourage parents to engage with how their children are learning.

Assessment is about outcomes of student learning.
Mr. Fisher

At a job interview I say:
“It’s up to the students to achieve their best. As I challenge them I get to see them slowly shift their own expectations for themselves. It blows my mind every time.”

The first day of school I say:
“I won’t hold your hand, I will challenge you to your utmost and if you work hard— very hard—you will be amazed at what you will accomplish.”

Biography:

Age:

Teaching experience:

How does Mr. Fisher believe these elements impact student learning...

- Technology infused classrooms
- Diverse range of furniture
- Reconfigurable learning spaces

Really Negative Impact
Slightly Negative
Slightly Positive
Really Positive Impact

“I won’t hold your hand, I will challenge you to your utmost and if you work hard— very hard—you will be amazed at what you will accomplish.”

“It’s up to the students to achieve their best. As I challenge them I get to see them slowly shift their own expectations for themselves. It blows my mind every time.”
<table>
<thead>
<tr>
<th>Statement</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know what is optimal and I've refined it to work well.</td>
<td>1</td>
</tr>
<tr>
<td>I seek feedback to assess how I might improve my teaching.</td>
<td>2</td>
</tr>
<tr>
<td>I facilitate student learning to the best of my abilities.</td>
<td>3</td>
</tr>
<tr>
<td>I believe all students can be challenged.</td>
<td>4</td>
</tr>
<tr>
<td>I seek new methods of teaching and assessing student’s learning.</td>
<td>5</td>
</tr>
<tr>
<td>I look for chances to demonstrate different ways of learning.</td>
<td>6</td>
</tr>
<tr>
<td>Teachers and students are peers in the feedback equation.</td>
<td>7</td>
</tr>
<tr>
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</tr>
<tr>
<td>I encourage parents to engage with how their children are learning.</td>
<td>15</td>
</tr>
</tbody>
</table>
Which statement most represents an exemplary teacher:

1. I know what is optimal and I do this to the best of my abilities.
   
2. I facilitate student learning to the best of my abilities.
   
3. I seek new methods of teaching and assessing students' learning.
   
4. Teachers and students are peers in the feedback equation.
   
5. Evaluating students' learning requires two-way communication.
   
6. I break down challenges into manageable bits for my students.
   
7. I embrace mistakes and encourage learning from failure.
   
8. I inform parents about their child's grades and performance.

Which statement is most like what you find yourself saying in class?

1. I've learned that this is the best way to teach this material.
   
2. "I try to make lessons engaging and learning fun!"
   
3. "This is a fun way to gauge how well you learned the material."
   
4. "There were low scores on this topic so I'll try a different approach."
   
5. "Let's discuss in groups and work through this assignment together."
   
6. "Go through and do the ones you know how to do."
   
7. "Learning from mistakes is as important as getting it right."
   
8. "Make sure your parents see your school-work portfolio."

When you are finished, please unfold your pamphlet!
How do the things you say in the classroom match what you believe? Flip this over to see how your ideals relate to your practice.

What about your learning space most supports your teaching practice? Why?

What about your learning space least supports your teaching practice? Why?

In your experience at your school...

How does your learning space affect your teaching?

What about your learning space most supports your teaching practice? Why?

What about your learning space least supports your teaching practice? Why?

Thank You for your time and participation!
Task
Create a tetrahedron that trace a connection between your beliefs and your practices as a teacher.
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Mahat, M; Imms, W

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