What is the role of signature pedagogies for subject-based expertise?

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As schools turn towards developing capabilities, dispositions and habits of mind for 21st century learning, this school-wide project will explore questions such as:

- What are signature pedagogies and why are they important in discussing 21st century skills?

- Are we developing learners of a subject or the ways of knowing, doing and being as reflected in the work of experts in the subject? (e.g. music students or musicians/ history students or historians/ art student or artists?)

- How do we organise or present / (train, mentor, coach) teacher professional learning to develop and implement adaptive and innovative approaches to pedagogy, learning and assessment?
Session intention: Investigate signature pedagogies as an approach to senior pedagogy and assessment

Success Criteria:
Understandings to be developed by the end of the session:
1. understanding of signature pedagogies in a secondary context
2. understanding of the distinction between general and subject specific pedagogies
3. consideration of the impact of signature pedagogies on student learning and expertise.

Products to be achieved by the end of the workshop.
1. Collaboratively complete activities using the ‘wheel’ and the ‘triple lens’ template on signature ways of knowing, doing and being in relation to learners’ growth in expertise in a specific subject.
2. Through collegial conversations, reach shared understanding of who you are (ways of knowing, doing and being) if you are a practicing expert in a specific subject.
3.2.3 – work with colleagues to plan, evaluate and modify learning and teaching programs to create productive learning environments that engage students

3.3.4 - work with colleagues to review, modify and expand their repertoire of teaching strategies to enable students to use knowledge, skills, problem-solving, and critical and creative thinking.
KNOWING
What are signature pedagogies?

• Lee Shulman defines signature pedagogies as “the types of teaching that organize the fundamental ways in which future practitioners are educated for their new professions (2005, p. 52). As Shulman explains, a signature pedagogy has three dimensions: surface structure, deep structure, and an implicit structure.

Reference:
Shulman, L.S  Signature Pedagogies in the Professions Daedalus Vol. 134, No. 3, On Professions & Professionals (Summer, 2005), pp. 52-59
https://www.jstor.org/stable/20027998?seq=1#page_scan_tab_contents
Surface Structure: concrete, operational; acts of teaching & learning

Deep Structure: assumptions about how to impart a body of knowledge and “know-how”

Implicit Structure: a moral dimension comprising beliefs about professional attitudes, values and dispositions

Signature pedagogies define what counts as knowledge in the field and how things become known.

What does our pedagogy reveal, intentionally or otherwise, about the habits of mind (content), heart (values) and hand (skills) we attempt to foster?

There is a connection between the way a discipline creates or discovers new knowledge and the way it apprentices new learners.

Shulman 2005
Why the interest in signature pedagogies?

Educational policies and their influence at RHHS.
Why the interest in signature pedagogies?

1. Explicit teaching of academic language
2. Rigourous reading

1. Capabilities driven curriculum
2. Creativity wheel
3. Signature pedagogies
4. Signature dispositions

1. Programming and assessing for engagement
2. Learning design and lesson design
3. Personalised learning including student self-reporting

WHAT ARE THE DISPOSITIONS OF AN EDUCATED 19YR OLD?
Skills, capabilities, dispositions

Many Skills to learn
(entry level - firsts)

Combine to broad capabilities
(experience - routines)

Develop into habits & dispositions
(expertise – innovation & improvement)

What are the dispositions of an educated 19 year old? (University, vocational, work and life ready)?
Demonstrating 21st century skills

Capabilities

Read through the capabilities to figure out where your evidence belongs.

- **Information and Communications Technology**
  - Investigate, create, and communicate using ICT hardware, systems, and data.

- **Critical and Creative Thinking**
  - Ask intriguing questions, analyze information and ideas, predict possibilities and use logic and reason to reach a conclusion.

- **Personal, Social, and Ethical Understanding**
  - Effective communication, appreciation of others’ viewpoints, understanding of relationships, conflict resolution, and well-considered decision making.

- **Literacy**
  - Understand and respond to all types of texts, explore ideas through discussions, and present ideas creatively and persuasively.

- **Difference and Diversity**
  - Appreciating and valuing the difference and diversity I experience in my everyday life.

- **Work and Enterprise**
  - Demonstrating my work-related knowledge and skills, understanding rights and responsibilities of employers and employees.

- **Civics, Citizenship, and Sustainability**
  - Knowledge of Australian society, the values and responsibilities of citizens, appreciating diversity, and positively contributing to society.

- **Numeracy**
  - Solve complex mathematical problems in order to measure, predict, and graph numerical relationships.
Find someone who is:

• from a different school
• from a different state
• expert in your teaching subject (or thereabouts)
• and now you are ready to go..........
DO NOW:
*Generate* a list of dispositions (HABITS OF MIND) for one subject area using 1 post-it for each disposition
e.g. for History we might say:

- debaters
- analytical
- predictor
- critical thinkers
- looks for trends
- decision maker
DO NEXT:
Sort the list of dispositions by their importance in making pedagogical decisions for the subject area.

THINK/PAIR/SHARE:
Explain to the person next to you whether you think some dispositions are more critical than others to enhance student learning in your subject?
AND THEN: 5 WHYS
Using the 5 whys explain to your partner why you became a teacher... now swap...

For each reason, ask Why?
1. Why?
2. Why?
3. Why?
4. Why?
5. Why?
Do your responses link to the dispositions from your earlier brainstorm?
Dimensions of signature pedagogies.....what leads to significant learning?

- **Surface Structure**
  - *Practical apprenticeship* – where a student learns to perform like a professional

- **Deep Structure**
  - *Cognitive apprenticeship* – where a student learns to think like a professional

- **Implicit Structure**
  - *Moral apprenticeship* – where a student learns to think and act in a responsible and ethical manner...integrating all 3 dimensions...metacognition
UNESCO….a framework for understanding signature pedagogies in each subject

- **Learning to know** – refers to discipline-based and inter-disciplinary intellectual resources used to make meaning
- **Learning to do** - the dispositions and skills to make knowing into practice
- **Learning to live together** – building meaningful associations, networks and participatory practices
- **Learning to be** - the development of new identities, embodiments and horizons of individual possibility
- **Learning to live sustainably** - the development of dispositions and skills for the future
Examples of signature pedagogies

IN THE ARTIST’S CLASSROOM
Artists carefully manage time and space

Artists consciously work with stories

Artists look for ways to make a special occasion

Students encouraged to be artists

Artists make sure the classroom is a highly social and sociable place

SIGNATURE INSTRUCTIONAL STRATEGIES:
• Computer Science – programming & coding
• Chemistry – experimentation
• Drama – performance
• Music – composition/performance
• English – communication
• Social Sciences – research & analysis

Secondary teaching is unique because we are TEACHING about what we are DOING.

http://www.signaturepedagogies.org.uk/common-approaches
TO A................EVERYTHING IS A..

- Computer engineer
- Musician
- Writer
- Actor
- Film maker
- Set designer
- Teacher
- Social worker

- Algorithm
- Song
- Story
- Play
- Movie
- Stage
- Lesson
- Life experience
How do we know if we are using subject-based signature pedagogies?

- What do our students *usually* do? (instructional core)
- What *usually* happens in our classrooms? (teacher and student behaviours)
- How is student progress *usually* assessed?

*Easy summary:* [https://www.slideshare.net/becker/signature-pedagogy](https://www.slideshare.net/becker/signature-pedagogy)
Music student or musician?
Teacher’s job is not just to teach the skills but to provide opportunities

Products

Creating meaningful **assessments** where students work on **PROJECTS** as a reflection of real-world practice as a musician. Examples include:

- Album
- YouTube Channel
- Prepare performances for live events
- Adding to composition portfolio
- Mentoring program - one on one private lessons where students teach students

**Music students are musicians at different stages of the journey**

Musical growth happens in and outside the classroom. Students learn their craft outside the classroom with parents, from private tutoring, youtube videos and from being self-taught.
Have, Do, Be…
a way to think about how signature pedagogies link
ways of being with subject based dispositions

Have – dispositions (habits of mind, ways of thinking and learning): LEARNERS

Do – signature pedagogies: TEACHERS

Ways of being: ROLES
eg ethical, strategic, socially just, empathetic, persistent, disciplined, collaborative

How do teachers create learning and embed (consciously or unconsciously) instructional strategies that ensure students practise the dispositions of the “role”?

What traits and habits do you most want to see in students in your subject so they can be...

How will you teach and assess subject specific content, dispositions and habits of the mind?

If a student had those traits how would they behave?
PART 2:

DOING
1. Working with your partner, consider your time studying at tertiary level.
   i. **DISCUSS:** At university what were the most useful ways of acquiring: knowledge; specialist skills; and ethics of the profession which led to your growth in expertise and excellence in practice in the subject area?
   ii. **ANNOTATE** the prepared **KNOWING, DOING AND BEING WHEEL** to indicate the top 5 ways of knowing, doing and being in your subject area.
Habits of
Head  Hand  Heart

WAYS OF KNOWING

WAYS OF DOING

WAYS OF BEING

What do experts in your subject know and understand?

Describe what students will do as practicing experts in your subject / field?

What’s the moral imperative in your subject? What are the values that underpin your subject? What are the strengths-based behaviors?
History case study:
GENERAL VS SUBJECT SPECIFIC PEDAGOGIES
What might be happening here?
Reflection on signature pedagogies in history

Role of myth, performance, poetry as sources in the ancient world vs objectivity/bias in modern sources.

“No real sources for Sparta, only the poems of Homer” - Year 11 Ancient History student
Year 10 Time Travellers wrote contemporary history piece replicating a type of story-telling found in the ancient world.

“Unlearning Modern ways of History” Year 10 student reflection

The Lone Wolf.

Once upon a time there was this man, he was tall, strong and handsome with brown hair and brown eyes, he was smart and somewhat wise. He was beloved by all who lived in the country. He helped pick the country up for when it falling down into a spiralling hole of debt after a tragic affair with death. He was one of those people who survived the meaningless sacrifice that started the experimentations of shell shock. As he started to reform the country of which he fought for. This former leader was in hysterics and no one could stop him. Until one day he learned his mother was everly so ill from an incurable disease which was she was in suffering. Crying in pain, yelling for help, in pain, 'Help me' she screamed in pain, she cried in the arms of her son in pain. A few days later she died which ended her suffering, he was in a state of confusion, hatred, anger and sadness for the doctor who said he could not control the situation that she was in.
SCIENCE FACULTY VIDEO REFLECTION:
(A SAMPLE OF WHAT WE ASKED STAFF TO DO)
PART 3:

BEING
FEEDBACK ON PROFESSIONAL LEARNING

The Rooty Hill HS teachers’ evaluations of PL, in summary:

- Professional conversations were highly valued
- Some faculties considered disciplines rather than subjects
- Faculties teaching many subjects completed a snapshot
- Clarifying the word pedagogy - is it about students (what they do) or is it about teachers (what they do)?
- Change in language - from *signature pedagogy* to *subject based* expertise
- What makes a pedagogy ‘signature’?
- Some tasks lacked clarity in relation to the product
Reflections from SDD:
We still need to collect baseline data for these questions:

What is generic about the way teachers teach their subjects?

What is unique (signature) about the pedagogies employed in teaching some subjects?
Where to from here?

• Interviewing each Professional Practice Mentor about the use and identification of specific subject-based pedagogies
• Develop a theory of practice for learning at Rooty Hill HS
• Seek similarities/differences in the teaching of subjects through focus groups
• Seek student feedback on teacher understanding of subject specific pedagogies. How do we communicate this to students so they can articulate subject specific skills for student-led reporting 7-10?
• Integrate the perspectives of students alongside those of teachers to gain a balanced research perspective.
• Work on plain language explanations in sorting the theory to practice.
• Teachers design professional learning to continually build in-house staff expertise
• Collaborate with academic partners
References:


Shulman, L.S  **Signature Pedagogies in the Professions** Daedalus Vol. 134, No. 3, On Professions & Professionals (Summer, 2005), pp. 52-59  
https://www.jstor.org/stable/20027998?seq=1#page_scan_tab_contents
Thank you & a final thought on subject-based pedagogies….

“To think, to perform and act with integrity”

Schulman