

Using Academic Research Deliberately to Design a Learning Intervention for Boys

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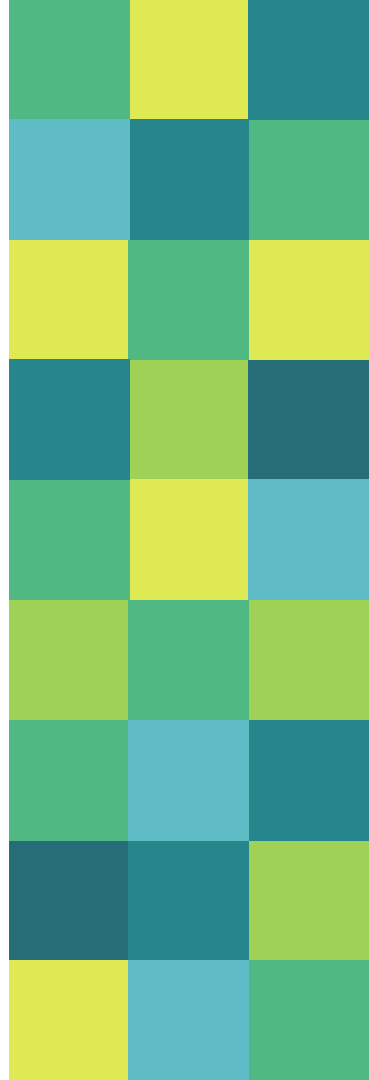


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BOYS' COLLEGE

"It really comes down to not who teachers are, not what they do, but how they think.

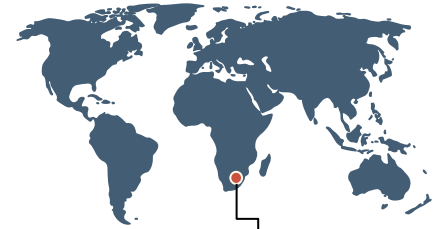
And if they think primarily that their job is to evaluate their impact, all the good things follow."

Prof. John Hattie



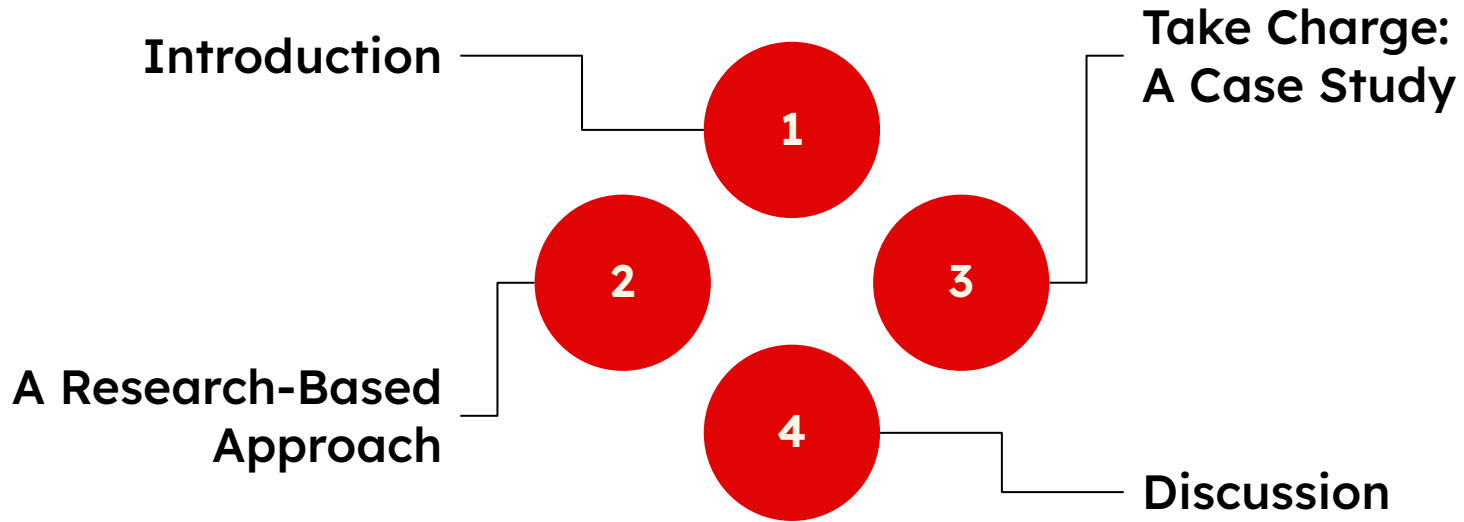


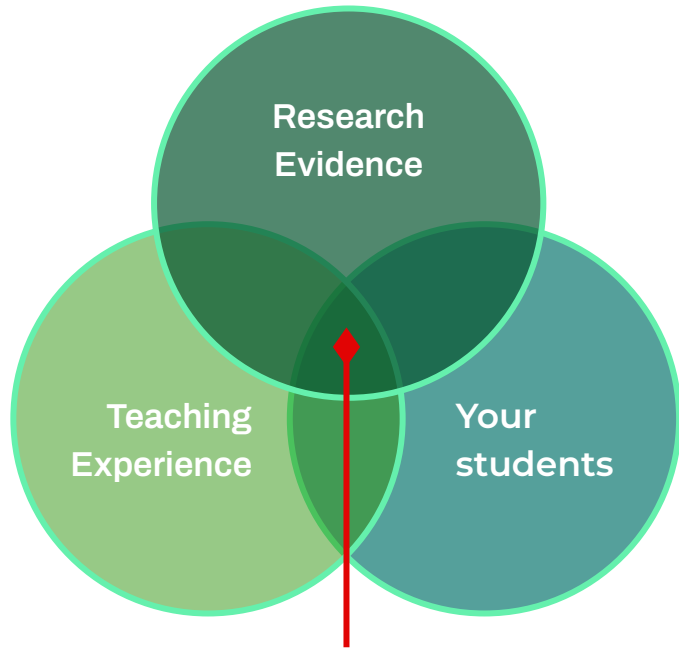
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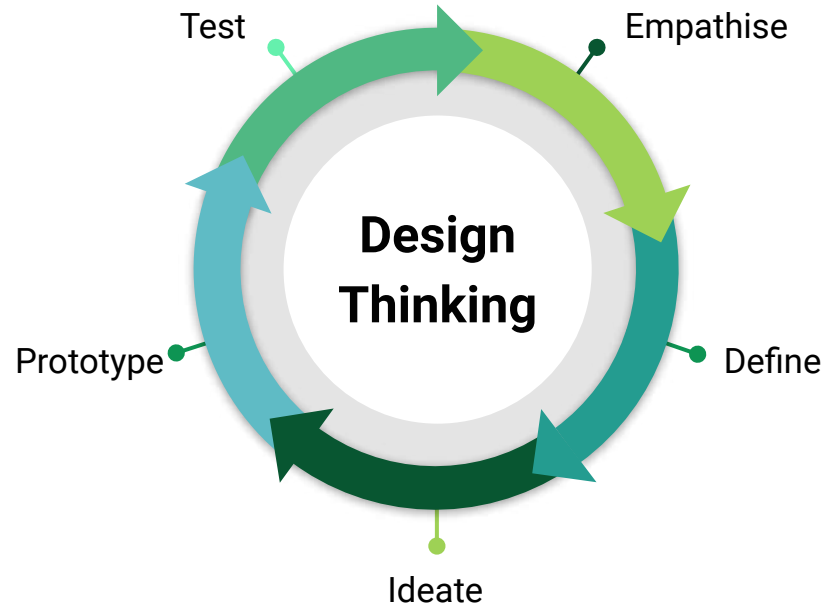
Johannesburg,
South Africa

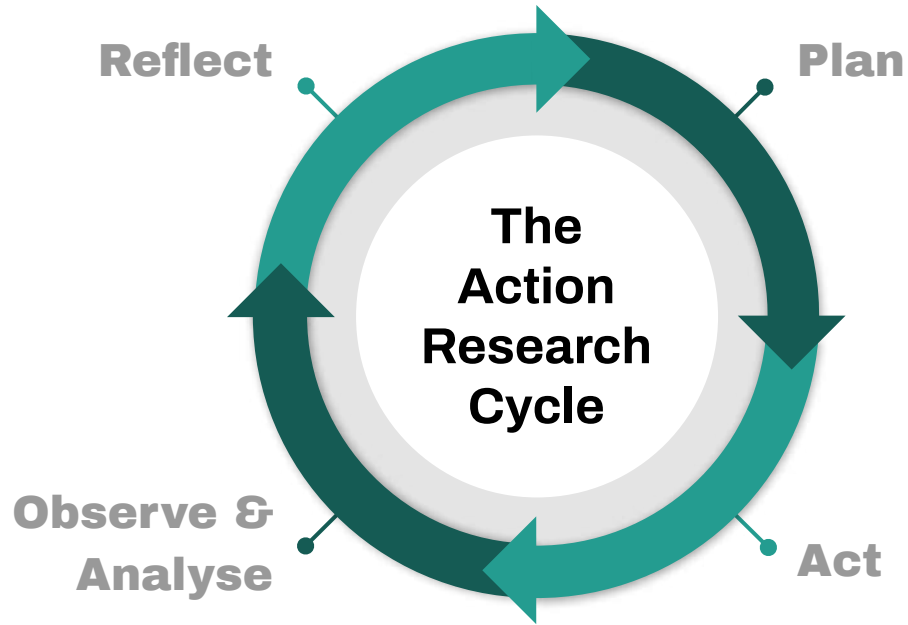
- ±750 boys
- 70 years old
- Methodist school
- Holistic education model
- Part of a college of 8 schools
- Hosting IBSC Annual Conference 2026





**Evidence-Based
Practice**





Research

Creation



Evaluation

“Consumers and creators of education research”

“Move from the intuitive to the intentional”

A Case Study:

TAKE CHARGE 

**THE POWER OF KNOWLEDGE:
A SELF-DETERMINED LEARNING PROGRAMME FOR BOYS**

ACTIVE



activating learning | active thinking | boys who act



Tomorrow's illiterate will not be the man who can't read; he will be the man who has not learned how to learn.

Alvin Toffler (1970, p. 414)

having the inclination and
ability to take action to
produce a desired result

Developing Agency: Boy Voice and Choice

“

Among the mechanisms of agency none is more central or pervasive than beliefs of personal efficacy [self-efficacy].

Albert Bandura (2008, p. 167)

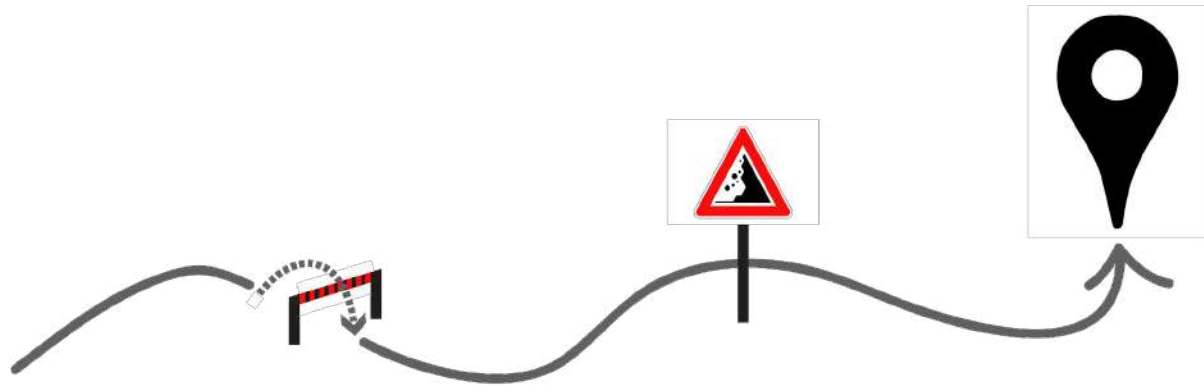
People who regard themselves as highly efficacious act, think, and feel differently from those who perceive themselves as inefficacious.

They produce their own future, rather than simply foretell it.

(Bandura, 1986, p. 395).

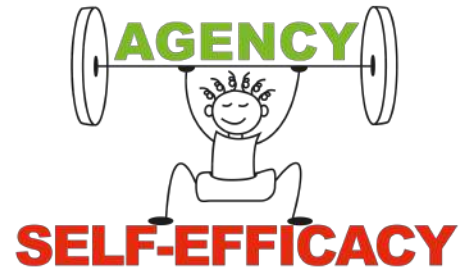
Self-Efficacy

Having the belief that one can alter one's life towards a desired outcome.



“ Among the mechanisms of agency none is more central or pervasive than beliefs of personal efficacy. This core belief is the foundation of human motivation, well-being, and accomplishments. Unless people believe they can produce desired effects by their actions they have little incentive to act or to persevere in the face of difficulties. Whatever other factors serve as guides and motivators, they are rooted in the core belief that one has the power to effect changes by one’s actions. ”

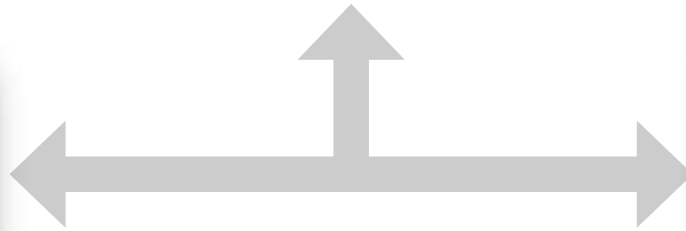
Bandura (2008, p. 167)



SELF-EFFICACY

GENERAL

as a global trait



**DOMAIN
SPECIFIC**

dependent on
context

Developing Self-Efficacy

1. Mastery Experiences
2. Social Modelling
3. Social Persuasion
4. Mood & Physical State

As much as mastery experiences can build self-efficacy, failures can diminish it. If mastery experiences have historically come too easily, failure can be especially crippling. In order to build resilient efficacy, one needs to overcome difficulties through perseverance and learn to manage failure.

Albert Bandura (2008)

The major technological advancements over the past few decades have allowed students to take far greater control of their own learning than ever before.

“ [This] shift in the locus of initiative requires a major reorientation in students' conception of education. They are agents of their own learning, not just recipients of information. Education for self-directedness is now vital for a productive and innovative society.

(Bandura, 2006, p. 176)

”

Heutagogy - Key Principles

↳ a form of self-determined learning

- Learner agency
- Capability (competency in an unfamiliar context)
- Reflection
- Metacognition
- Non-linear learning



enhanced by
technological
possibility

Students are encouraged to “take responsibility for the learning design and pathway, while instructors facilitate learning and encourage learner action and experience in a supportive, non-threatening environment.”

(Hase & Kenyon as cited in Blaschke & Hase, 2019, p. 2)

“ “ Ultimately, heutagogy posits that giving responsibility of the learning process to the learner (learner agency) has the effect of encouraging development of learner self-efficacy and capability, as well as cognitive and metacognitive skills such as critical thinking and reflection – with the underlying goal of developing reflective practitioners and autonomous lifelong learners. (Blaschke & Hase, 2019, p. 3) ”

Project-Based Learning

Students learn by completing an authentic project that requires sustained enquiry and culminates with a public product.

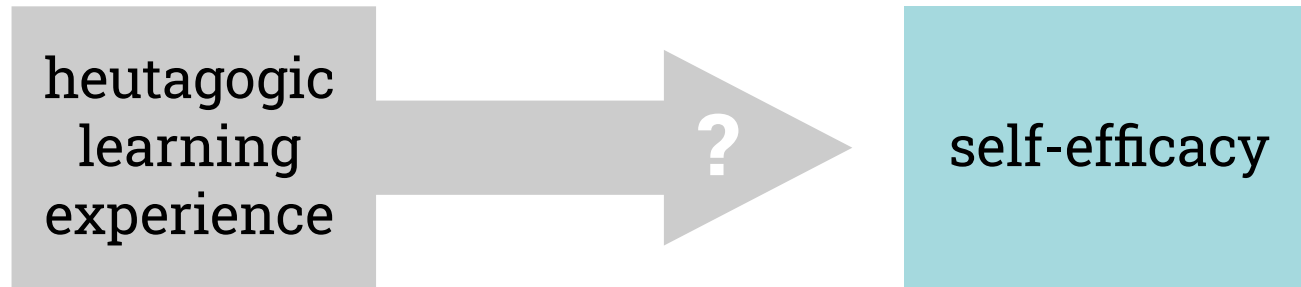
Learning “For Boys”

Boys learn effectively when they:

- Create products
- Engage with open-ended problems where they have to figure it out themselves

(Reichert & Hawley, 2010)

How does participating in a heutagogic learning experience develop self-efficacy in Grade 8 boys?



TAKE CHARGE



**THE POWER OF KNOWLEDGE:
A SELF-DETERMINED LEARNING PROGRAMME FOR BOYS**

Project Design:

7 pillars & life skills

1. Choose a skill to learn and carefully set a mastery milestone
 2. Master the skill independently using online resources
(create a video of the learning process and ultimate mastery)
 3. Create a YouTube-style tutorial video teaching your chosen skill
 4. Introduce your skill to a classmate in person and learn about their skill in return
 5. Present your skill and learning process at a public exhibition
- Throughout, reflect on the learning process
(exit tickets, class discussions, written reflections - thinking and learning about independent learning)

Their learning,
their
achievement

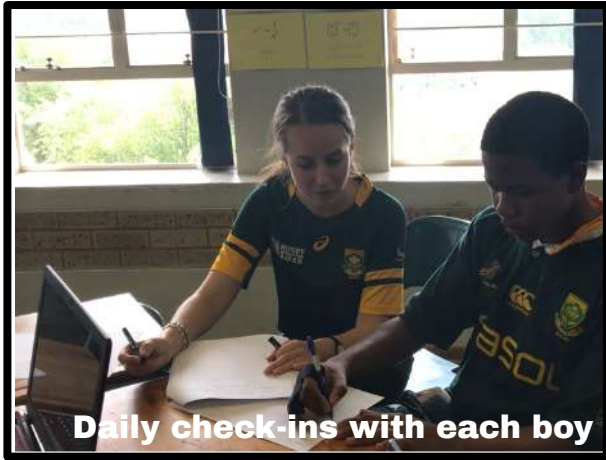
CHOICE

**skill to learn
independently**

**achievement
milestone
to determine
mastery**

**learning
resources &
strategies**

**how to use
lesson time**



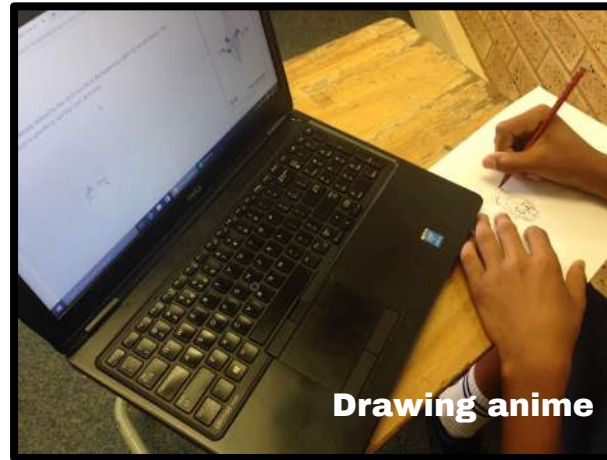
Daily check-ins with each boy



Duolingo



Lock picking



Drawing anime







Project Evaluation:

Data Collection

- **Qualitative:**
exit tickets | written reflections | individual and focus-group interviews | a teacher observation journal
- **Quantitative:**
A pre-test/post-test survey self-efficacy scale (general and domain-specific)

Data Analysis

- Inductive analysis of qualitative data
- Numerical analysis of the pre-test/post-test survey self-efficacy scale results
- Polyangulation of the various data sources

1. Undertaking the Project Increased the Boys' Self-Efficacy

- Pre-test / post-test indicated that self-efficacy levels increased
 - The general self-efficacy score increased by 6% on average
 - Specific domains:
 - Average increase of 8% in “enlisting social resources”
 - Average increase of 7% in “self-regulated learning”
- All 27 boys stated that having learnt a new skill independently made them feel more confident to learn further skills on their own.

“It makes you feel that self-learning can be done.”

“I now know that I can do it!”



Mastery Milestone Finally Achieved!
Skill: Speed typing

“I feel like when you achieve mastering one skill you want to keep on going and try do another skill.”

“I felt pleased with myself because I learnt something that I haven't learnt before and I didn't think it would be possible to learn - I was just lazy. Now that I put my mind to it, it was actually quite easy.”



SELF-EFFICACY



TAKE CHARGE

2. Mastery Experiences are Powerful

- Having different opportunities to display mastery (learning video, teaching video, teaching a classmate, public exhibition presentation) strengthened the boys' sense of accomplishment and deepened their understanding of their new skill.
- 26 of 27 boys stated that making a teaching video made them more confident about their skill.

“I didn’t really enjoy teaching someone [in person] but it benefitted my actual *real* mastery of the skill.”

“Making the teaching video made me realise how much I actually know.”

“Teaching your skill helps you understand your skill better.”



Teaching a Classmate
Skill: Knitting



Public Exhibition:
Presenting about the Learning Process
Skill: Learning a Song on Guitar

“This project made me more confident in learning new things. Because before maybe I’d think, “oh no, I’m not going to be able to finish this”, or “it’s going to take too long” but now that I’ve done it in three weeks, then you feel like you can do it.”

“If you’re teaching someone and they’re looking at it from a different perspective then you can look at things you’ve never really seen before and figure out why you were doing it right.”

3. Choice Increases Motivation but Requires Self-Discipline

- Having choice heightened the boys' ownership of their work, which appeared to contribute to them achieving the various mastery experiences.
- However, having choice required them to display responsibility and maturity on various levels. Most boys thrived in this space, while some did not enjoy this, or abused it.
- 21 of 27 boys stated that choosing their skill increased their motivation to learn it.

“We’re doing it for ourselves.”

“If you get off task in like a [traditional] class environment ... you’ll be quickly brought back in a way. In this project we would get off task and we would not be brought back to it and we’d be talking to everyone else.”

“I really enjoyed it because we actually got to teach *ourselves* something ... it’s nice struggling to actually achieve something by yourself without people telling you what to do.”

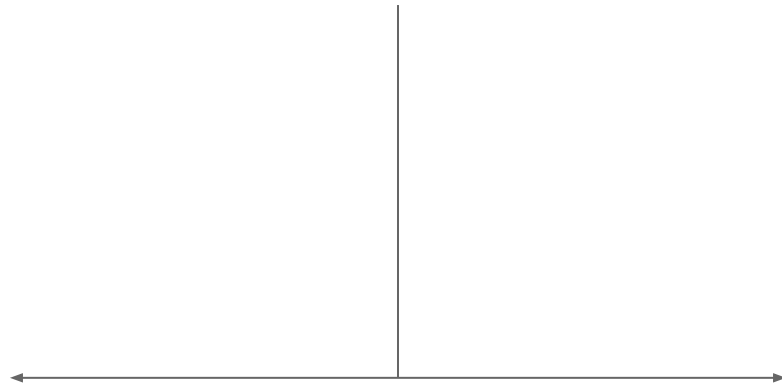
“I felt satisfaction [from doing the project] because I felt that if you’d actually tried this in your free time you’d have started and you would have been lazy to actually continue with it. So it actually gave you the confidence that you actually can learn a skill when you actually have to do it.”

Findings

- The *Take Charge* project strengthened the boys' self-efficacy and their agency to learn independently in the future
- Providing various, diverse opportunities to show mastery in the learning process is very important (*especially in comparison to summative assessment which can highlight lack of mastery*)
- Experiencing personal mastery of a skill is motivating to take on new challenges

Research

Creation



Evaluation

“Consumers and creators of education research”

“Move from the intuitive to the intentional”

**How are you actively using
research at your school in
programme designs?**

**How are you hoping to use
research at your school in the
future?**

Q & A

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Reference List

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