Abstract

This paper is concerned with how our identity as a learner is a key indicator of our level of engagement and agency. Our learning identity is revealed in the stories we tell about ourselves as learners. As teachers this narrative shapes our approach to pedagogy and with students it shapes our engagement in formal learning. We present two metaphors – 'learning as script' and 'learning as design', which describe the patterns we have observed in our data drawn from studies in the UK and Australia. These metaphors can be described as attractors – two quasi-stable states in a complex social system which apply at the levels of policy makers, leaders, teachers and students. The 'script' orientation has been found to be dominant among teachers and students. We examine the approaches to teaching and learning which are associated with it and the alternative minority orientation of teaching and learning as 'design'. We suggest that the approach of 'learning as script' produces outcomes that are inconsistent with the desired outcomes for learning in the 21st century.

1 The authors are a part of the Learning Emergence Network (www.learningemergence.net) and would like to thank other members of that network for their assistance with the review of drafts and other suggestions supporting this work.
Learning Identity – Script or Design?

Introduction

In this paper we present evidence from teachers about the ways in which they narrate themselves as pedagogues and from students about the ways in which they narrate themselves as learners. This evidence is drawn from schools participating in research and development into engagement in learning in the UK and Australia.

First we explore the concept of story as revealing identity and more particularly examine the language through which learning identity is typically narrated. We then describe our analysis of the student stories from the Learning Futures project in the UK\(^2\) and how they reflect different types of learning identities, two in which learning is understood as following a script provided by the teacher and the third in which learning is understood as self authorship. The second part of the paper presents findings from the Teaching for Effective Learning Project in South Australia\(^3\) which shows two distinct narratives that shape teachers' approach to pedagogy. These, we suggest, also constitute patterns of 'pedagogy as script' or 'pedagogy as learning design'. They represent two competing patterns of social interactions and relationships available for schools.

By comparing the two sets of findings we suggest that pedagogy as learning design is the most potent pattern for achieving deep learning and student engagement because it fosters learning as authorship. However, pedagogy as script is deeply and systemically embedded in western schooling systems. Systematic learning interventions for policy makers, leaders, teachers and students focused on re-storying are required if we are to shift from 'pedagogy as script' to 'pedagogy as learning design' on the scale necessary for the development of deep learning and engagement and the competences required for successful living in the information age. These competencies are generic rather than specific to particular disciplines (Stevens, 2011). They are captured in the Australian National Goals for Education (MCEETYA, 2008) primarily in the form of Goal 2 which addresses skills associated with:

- successful learners;
- confident and creative individuals;
- active and informed citizens.

The themes of learning how to learn, the development of a sense of agency, critical thinking, capacity to evaluate and synthesise evidence, problem solving ability, creativity, an ethical orientation, concern and respect for others and a capacity to collaborate, are common and recurrent themes in this literature (see for example Bellanca & Brandt, 2010; CISCO, 2010; Gardner, 2008). These skills are also argued to be situated and context responsive - dealing with the complexities and subtleties of the world - rather than as abstracted and standardised - something which can be assessed in an examination. Thomas and Seeley Brown (2009), for example, argue that structural changes in the way communication happens

\(^2\) www.learningfutures.org

through new technologies means that we need an understanding of learning that embraces embodied and experiential knowing, tacit as well as explicit knowledge (Polanyi, 1967).

*The potential revolution for learning that the networked world provides is the ability to create scalable environments for learning that engages the tacit as well as the explicit dimensions of knowledge. The term we have been using for this, borrowed from Polanyi is indwelling. Understanding this notion requires us to think about the connection between experience, embodiment and learning. (2009:10)*

This way of knowing positions the person, as learner, and their experiential knowledge at the core of the process of participation in learning. Heron and Reason identify experiential knowing - through direct encounter - as the distinguishing feature of a participatory enquiry paradigm and the foundation for the development of critical subjectivity (Reason, 2005) (Heron & Reason, 1997). Thus a person’s identity and the lateral and temporal connectivities which shape a person’s sense of Self, particularly personal and communal stories and networks of relationships (Bloomer, 2001; Bloomer & Hodkinson, 2000), shape a person’s engagement with learning (and teaching) opportunities. To be an ‘author’ of one’s own learning suggests that (i) there is an agentic self who is producing the ‘texts’ of learning (ii) there is a coherent story to be told and (iii) there is a context in time and place within which the learning is taking place.

**Learning Identity – a missing link**

Taking this further Sfard and Prusak (Sfard & Prusak, 2005) suggest that the notion of identity is the missing link between learning and its socio-cultural context:

*We believe that the notion of identity is a perfect candidate for the role of “the missing link” in the researchers’ story of the complex dialectic between learning and its socio-cultural context. We thus concur with the increasingly popular idea of replacing the traditional discourse on schooling with the talk about “construction of identities” (Lave and Wenger, 1991:53) or about the “longer-term agenda of identity building” (Lemke, 2000; Nasir & Saxe, 2003) (2005:15).*

For Sfard and Prusak, identities are stories about persons. They define identities as ‘collections of stories about persons that are ‘reifying, endorsable and significant’ and argue that a person’s stories about themselves are profoundly influenced by the stories that important others, including teachers, tell about that person. The importance of this for understanding engagement in learning is that identity talk – i.e. reifying statements such as ‘I am resilient’, or ‘You are creative’ – makes people more able to engage with new challenges or opportunities in terms of their past experiences. Identity as a discursive activity becomes an important bridge between the lived experience a person brings to the learning encounter and the movement forwards towards the construction of new knowledge.

Sfard and Prusak go on to operationalise their definition of identity for learning, by describing the gap between a person’s actual identity and their designated identity:

*The reifying, significant narratives about a person can be split into two subsets: actual identity, consisting of stories about the actual state of affairs, and designated
identity, consisting of narratives presenting a state of affairs which, for one reason or another, is expected to be the case, if not now then in the future (2005:18).

For the learner as ‘author’ the space between the ‘actual’ and the ‘designated’ is a powerful site for engagement. It is also the site for coaching conversations supported by trust and challenge which facilitate learners in actively and critically narrating the terrain it represents. Such pedagogical skills of facilitation are more akin to coaching than to traditional teaching or mentoring because the purpose is to facilitate the learner to become the author of her own learning journey rather than to transmit information or know-how from an expert to a novice. This space is personal to the learner and is also dynamic. To the extent that it presents an opportunity to engage, it is not one amenable to formulaic or one-size-fits-all scripts.

The space between actual and designated identities is consistent with the approach to learning which Vygotsky advocated. For Vygotsky, learners arrive at a learning opportunity already possessing a way of knowing and being in the world which is the sum of their experience to date. He described this as ‘perezhivaniya’, the term used for accumulated lived emotional experience, including values, attitudes, beliefs, schemas and affect (Del Rio & Alvarez, 1995; Vygotsky, 1962/1934, 1978). For Vygotsky, perezhivaniya is the process through which interactions in the ‘zone of proximal development’ are perceived by the learner. The ‘zone of proximal development’ is entered when a learner and a more experienced other participate in a relationship of ‘cognitive scaffolding’ through which the learner becomes more capable of achieving particular learning outcomes through modelling, imitation and repetition. What a learner brings to learning in this context is deeply personal and unique, although necessarily experienced and accumulated over time in the context of relationship, community and tradition. Mahn and John Steiner (Mahn & John-Steiner, 2002) argue that by expanding the scope of the examination of the zone of proximal development we can understand it as a complex whole, a system of systems which includes the inter-related and interdependent elements of participants, environments, artefacts and context.

Our concern in the remainder of this paper is with how the teachers and students in our studies work within this complex system: with the deep assumptions they make about themselves and others as learners and about the processes of knowledge construction which they facilitate and engage in.

**Student Stories: from the Learning Futures Project**

*Pattern language in the stories*

In our student data we identified three different types of learning stories. The first type of story is told with an impoverished language for learning. Knowledge is an object to be acquired, it is pre-scribed by the curriculum and the purpose of schooling is to pass the test. Being a good learner is doing what the teacher says and engagement is equivalent to compliance. The second type of story is told with externalised language. For example, learning to learn is what we learned about last week, rather than something that is happening to me. A student may be able to use a rich vocabulary of learning but it is not owned, internalised or re-interpreted. The third type of learning story is authentic: it is...
owned, internalised and re-presented in contextually relevant ways. Meaningful knowledge is co-constructed and is relevant to the student. The identity of the learner is manifest in the level of interest, or even passion which they bring to their learning and the way it is related to their lived experience and its personal significance in their story.

**Data and methods**

The student data is drawn from a purposive sample of fifteen English secondary schools selected from a cohort of 54 who applied to join the Learning Futures project in the UK. These schools volunteered in order to participate in development and research, working with a cohort of students which totalled 1350, to implement Learning Futures interventions designed to stimulate deep engagement in learning. A nested sampling strategy, aiming for representativeness, was used to select two students for narrative and semi-structured interviews from each school. Each student was interviewed twice. A researcher visited each school for one day in the autumn term and a second day in the spring term in the 2010/11 academic year, and worked to an agreed schedule of interviews. In total there were 60 semi-structured interviews and 60 narrative interviews with students. The narrative interviews were open-ended, inviting stories of learning experiences from the past and the present. The semi-structured interviews were more focused and drew on the themes the research team had identified for analysis, but still enabled new ideas to be introduced by the participants.

The interviews were digitally recorded and transcribed, and coded into themes in two ways. Firstly themes which emerged from the data, which had not been previously recognised, were identified and coded; secondly, the data was interrogated for the presence of relevant themes which the project and research teams had already identified. Twenty percent of the coding was moderated independently by two researchers to check for validity and trustworthiness.

**Three types of language describing Self-as-learner**

Three types of language emerged about self as learner. The first we described as 'impoverished', the second as 'externally derived' and the third as 'authentic' descriptions of self-as-learner. An impoverished perspective was characterised by a limited vocabulary for the personal processes of learning, a ‘survival mindset’ and limited ‘skill set’ that focuses on surviving in school or class and a language that was disconnected from the self and passions of the learner. For example learning was described as listening well so you know what to do, not messing around, getting good grades, and not getting distracted.

Students who demonstrated an externally derived learning language construed learning in terms of talking about learning to learn using terms that they picked up in learning-to-learn lessons such as 'resourcefulness, reflection and resilience' rather than referring to their personal experiences of learning itself. Even though their language described some of the processes necessary for learning it was a moral imperative given by the teacher, 'out there' rather than owned by the learner. Learning was more about 'working harder', trying harder.

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4 Details of the interview schedules are available at www.learningemergence.net
5 Coding themes are available at www.learningemergence.net
to be resilient, being positive, remembering things, and a focus on performance. This language did not link to the experiential space in the learner’s narration of self. Authentic connection was displaced by a contrived and supplied narrative. Both of these types of stories about learning have in common the idea that learning is externally prescribed for the student by the teacher and the performance indicators of the curriculum - and we apply to both the metaphor of ‘learning as script’.

In contrast to impoverished and externally derived types of descriptions of self-as-learner, authentic learning was understood and articulated in a more personally relevant and meaningful way. For these learners, motivation for learning and achievement was intrinsic and owned, and demonstrated agency and a sense of self-direction, as well as a sense of story. Once students saw how helpful a language for learning was in one area they began to transfer it into other areas of learning, and the challenge to find different ways of learning was extended. (For a more detailed account of the nuances and impact of such language see (Deakin Crick & Bond, 2012)). The metaphor emerging here is 'learning as dynamic design' - the student has a purpose, a process and a content and is navigating a learning pathway in response to their agentic purpose in particular contexts with the overall aim of narrowing the space between their actual and designated identities.

The following excerpts provide fragments of the transcripts from which these categories were derived. The data suggested that 'learning as script' language was more likely to be associated with younger age and lower socio-economic status, whereas 'learning as dynamic design' language was more likely to be associated with older age, but an externally derived language was not associated with either. The following section provides examples from the Nvivo database of each type of language.

**Examples of impoverished language for learning:**

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>Year 7 F-S</th>
<th>What do you think makes a good learner?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Listening, don’t mess about in class, well … you’ve got to have confidence in yourself and like you’ve got to focus on what you’re doing, don’t copy them (other people being naughty) and then you’ll get far. But if you don’t, then I don’t know where you’ll go.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>Year 7 F-T</th>
<th>What do you think about yourself as a learner?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Don’t really know.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>Year 7 F-T</th>
<th>Have you ever thought about it before?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No not really.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>Year 7 F-T</th>
<th>So you just learn.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yeah, just go along with the school day.</td>
<td></td>
</tr>
</tbody>
</table>

**Examples of impoverished language for learning:**

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>Year 9 F-B</th>
<th>How would you describe the sort of learner you are now?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I don’t know how I would describe it.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>Year 9 F-B</th>
<th>You don’t have any words that you could use to describe it</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>Year 9 F-B</th>
<th>So what do you think makes somebody a good learner?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I’m not sure on that.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>Year 9 F-B</th>
<th>Think of someone who you think is a really good learner.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Laura is a good learner.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>Year 9 F-B</th>
<th>Tell me about Laura.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Laura, she listens to the teacher talking and then she knows what she’s doing and she can go off and do what she’s doing without being told more than once.</td>
<td></td>
</tr>
</tbody>
</table>
Examples of externally derived language for learning:

Interviewer
What has increased your motivation?

Year 8 F-A
Well options and stuff makes you think about your future and GCSEs. So you subconsciously get more motivated because you want to do well in them, and you want to make like a future and a good life for yourself.

Interviewer
So what do you think makes a good learner?

Year 8 F-A
You have to be motivated and like positive. You have to be like willing to work hard and ... yeah, have to be focussed.

Interviewer
What do you think about learning in general?

Year 9 F-B
I find ... that it’s easy to learn like ... but I don’t see why we have to do things like ..Learn to Learn cos that’s what it was called last year, it was called ‘Learn to Learn’ but you shouldn’t need to learn to learn, cos you’ve already learned other things, so you know how to, so you don’t need to know. So I don’t see the point of the course.

Year 9 F-B
I think I was in Year 8 and it was Learning to Learn and ... there was 60, there were two classes together and we were doing about how you learn and like which kind of learner you are. Like kinaesthetic or ... I don’t know the other ones, but I think it was my form tutor ... my Learning to Learn teacher, he realised that ..I was better at doing ... or better learning if I’d done it like actively instead of just sitting down writing it. So I think that’s where like I learned that I’m a kinaesthetic learner, instead of just sitting there writing or reading it...

Examples of authentic language for learning:

Year 9 M-K
We weren’t just doing what our teachers gave us to do. We were standing up on our own like. We had to go out, research and do other things – we had to talk to people by ourselves and we had to make our own research and stuff.
I felt quite good being able to do things by myself rather than depending on adults all the time.

In my learning journey I’ve gone from being interested but not dedicated to wanting to learn a lot more. It’s really weird, it’s like I was fine with just coming to school, learning and then going home, but now I want to learn a lot more – get into what goes on with things.

The project showed me that it could be fun to learn. It showed me that if you really look deeply into stuff then and use what you already know and a combination of things that you can find out, then you can have quite a lot of fun with learning.
I’d say to learn the way you want to learn ... if you’ve got a preferred way to learn, then learn in that way rather than the way that you think is how people want it to be – learn in the way that you feel is best rather than the way that you feel that others want you to learn.

Year 11 F-A
I make links between everything, so I can tell a story or relate it to something that happened, and that’s how I really learn.

Year 9 F-C
Because learning...you’ve got to figure out for yourself cos if people just told you, you’d just find it an easy life but life is full of obstacles and stuff and you’ve got to work through them yourself and make your own mistakes.

Year 7 M-D
Like I never used to know like all this stuff, like ... I never knew it existed, like changing and learning and resilience. And as soon as I got it all into my head, I’ve never ever gave up on stuff I need to reach my goal.

Identity Language: ‘Hannah’ Year 7 student ...Getting out of your comfort zone
This section presents a longer story of significant change from a student whose language of learning can be represented by the metaphor of ‘learning as dynamic design’. In her first interview ‘Hannah’ came across as someone for whom learning didn’t necessarily come that easily, but at the same time demonstrated the need for determination and persistence. She had a strong sense that whatever she could learn would be of some use to her later on in life.

‘The most important thing is that whatever it is at home or at school you’re still learning something, and it’s something that’s going to help you in the future’

She continued to talk about the importance of learning for life as she described what was involved in the ‘My World’ project her class were doing. Although only a Yr 7 student she seemed to be perceptively aware of the difference between usual lessons and what they did in the Learning Futures project.

‘It’s different from other lessons, like I said. Because in other lessons you’re just learning things that are going to help you get a job and you might not even like use them. But in My World you learn things that you might need in life; things that you know you need to be ready for’

‘In My World we don’t do things like Maths, English, Writing, Reading...we like have to teach ourselves. And I find that quite interesting, because in other lessons the teacher’s just standing at the front and explaining what you have to do and you get on with it. But whereas in My World you’re like ... the teacher does like explain to you what you have to do and stuff. But then after that ... like you can get into your own groups and make your own mind up of who you work with’

One particularly interesting comment she makes, which she repeats in her second interview, relates to overcoming fear and taking the risk to come out of your comfort zone.

‘But sometimes it doesn’t work because you don’t want to get out of your comfort zone, like you want to stay with your friends. And you don’t quite learn quite as much’

In her second interview Hannah described in considerable detail some of the different activities they had been doing in the project; for example writing speeches for her role as a defence lawyer in a court case. It was obvious that she had taken her responsibility for her own and her group’s learning quite seriously. Using imagery she describe that at the beginning of the year she was quite shy, rather like a mouse, but that now she thought of herself more like an owl who sits in tree with a good view of everything. (For a more detailed discussion of how visual literacy supports identity formation see (Deakin Crick & Grushka, 2010; Grushka, 2009).)

When asked what she thought had contributed most to her changing she spoke again about ‘getting up and actually doing it...getting out of your comfort zone...[and] learning about other people’. This student’s account perhaps exemplifies the notion of ‘stepping up’ that seemed to come through many student accounts.

‘Cos it was like our learning and we were like responsible for it so we had to like make sure we ... you know, worked together and get through it’
When asked what the best thing about the My World Learning Futures project she said:

‘I think it’s actually where we get to learn ourselves, like teach ourselves of the way ... we’re responsible for our learning.......So like the teacher doesn’t get up at the front and tells us what to do......we have to think for ourselves more, into more detail, like we need to learn for ourselves, it’s our responsibility and everything.  But it’s become quite important to me like ...knowing there’s not going to be a teacher at the front......giving directions of what we’re going to do in this lesson.  He’ll let us know what we’re supposed to be doing, he’ll introduce us to it but then he doesn’t like kind of take over the lesson, he like makes sure we have to speak and do most of everything for ourselves, so it’s quite good’

She went on to describe the teacher as a sort of ‘indicator’ for learning:

‘They’re like ... sometimes ... they observe the lesson and like inform us at the end, like a summary kind of thing, they let us know at the end what we ... like how our ... he like speaks to us about our learning, he’ll stop between our learning and if something are going like totally wrong, he’ll, you know, take charge a little ..........He’s like ... well I’m kind of more responsible of our learning and he is more like in charge cos he indicates for us what to do, but then from there, we do ...’

Hannah was insightful about the ways in which she had changed. The worst thing about the Learning Futures My World project to Hannah was the shock of finding out that the teacher wasn’t going to tell her what to do:

‘The worst thing has got to be when like you’re researching and be resilient, carrying on and you just feel like you can’t do it anymore and you’re just like you’re really angry and you’re angry with yourself but you’re just like sometimes you need a teacher at the front telling you what to do.....But when you’re like ... when you don’t get that, it’s hard to get used to, so I think that’s quite a bad thing’

Interviewer   That ... so that’s been a bit of a shock has it?
Yeah, like when he said to us ... the first time he said to us ‘Right, I’m not telling you what to do, you’re doing it’ we were like ‘What are we going to do, we don’t know what to do’ and it was quite hard for us to like actually get to the point where we know that we have to do it and get up and do it ourselves.  But it’s not actually a bad thing cos now it’s actually come ... quite good ‘cos we’re a bit more responsible sort of thing....It came across as a shock, yeah, but it was good for us’

She ended her interview by describing how her school was not one of the ordinary ones, and how her parents are really pleased with her My World project because she was able to talk about it with them at home because it was linked to their world as well.  Hannah’s pre and post learning power profile\(^6\) - a visual analytic feedback from the Effective Lifelong Learning Inventory, shows how she has changed between her pre and post profile, the post test is red in figure 1 below.  The most significant changes are in her strategic awareness of herself as a learner and her ability to make meaning out of her learning. This is consistent with her story. This self-report instrument is used as a starting point to help learners reflect, rethink, and if they believe it appropriate, re-story themselves as a learner. The following figure is Hannah’s spider diagram – showing the way in which her sense of herself as a

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\(^6\) The Effective Lifelong Learning Inventory is a self report questionnaire which feedback a visual analytic to the individual about what they say about themselves on seven dimensions of learning power. www.vitalpartnerships.com.
learner as revealed by the 7 dimensions of learning power shifted following her involvement in deeply engaging and personally significant learning.

Figure 1  Hannah’s pre and post profile

**Deep Learning as authorship and dynamic design**

Taken together with the overall findings from Learning Futures (Deakin Crick, Jelfs, Ren, & Symonds, 2010) the data suggest that the identity of the learner – the stories they tell about learning and their relationship to it – is profoundly important for deep engagement. In order for students to become reflective, self-aware learners they need to have a rich language with which to name their unique experiences, processes, strategies and outcomes of learning and with which to engage in dialogue in learning relationships. The term ‘authentic’ is used to describe this quality of language because is genuine and meaningful in the life of the learner. It is authored by the learner herself, over time, grounded and contextualised. The learner as agent purposefully responds to the dynamics of the journey, working with context, content, process and purpose. Such an approach resonates with the practice of authentic pedagogy developed by the Chicago school during the 90s (F.M Newmann, 1991; Fred M. Newmann, 1996; Fred M. Newmann, Marks, & Gamoran, 1996) and subsequently with various approaches to quality teaching in Australia (see for example C. Goldspink, 2007a; C Goldspink & Winter, 2008; Ladwig, Smith, Gore, Amosa, & Griffiths, 2007).

We conclude from this evidence that deep learning is involved in the on-going construction and maintenance of a life story (I. Goodson & Beista, 2010). A curriculum which facilitates this makes three stories available for telling and for dialogue through their dynamic interaction; the authentic story of the learner, the stories of their culture and tradition and the stories derived from the subject matter about which they are learning (Ivor Goodson & Deakin Crick, 2009). In the first round of interviews in the Learning Futures study there were very few examples of rich, authentic self-directed language for learning. The overwhelming understanding of learning from all the transcripts was of learning as performance, or as understanding what the teacher says: learning was a script to be followed. There was little or no language to describe learning that was about discovering
something of personal interest, where the student herself is the agent and author of the journey. In the second round of interviews there were more examples of authentic language for learning, with rich descriptions, spanning dimensions of learning relationships, learning power dispositions (R. Deakin Crick, 2007; R. Deakin Crick & Yu, 2008) and preferences for learning. Students who used this type of language seemed to have an air of personal confidence and were able to reflect on their own learning as well as being able to talk about learning more generally. They had an increased self awareness relating to learning strengths and strategies, particularly in relation to working in a team, noting for example the difference between working in a team and as a team. In one interview two students talked about the fear of getting the wrong answer and how consequently they were reluctant to contribute until one of them realised that there should be no shame in ‘being wrong once in a while’. Students with an authentic, rich language for learning were more self-directed and understood and embraced the challenge of trying out different ways of learning, being adventurous and taking risks. They embraced choice and described their teachers as being there to help them if they needed it, not to direct them and tell them what to do. In short, learners who were given the opportunity and a curriculum and pedagogy which supported it, strove for, demonstrated and were able to articulate those skills which were earlier identified as essential for dealing with the challenges of the future. They approached their learning as a dynamic design process - there was a purpose, a product, and a context which shaped their personal process of knowledge construction.

**Teacher Stories: from the Teaching for Effective Learning Project**

*Pattern language in the stories*

For the teachers in our studies there were two types of story, one of which cast them as implementers of a script either handed down to them or derived from the actual content of what was to be learned. The accounts cast them as passive and dependent in relation to that content – purveyors of pre-determined knowledge. The second type the teachers cast themselves as designers responding to the diversity of need and specifics of context, taking responsibility for linking the content of the curriculum to the lived experience and stories of the learners.

**Data and Methods**

This data forms part of research being undertaken as part of the Smarter Schools National Partnership Teaching for Effective Learning Framework (TfEL) Research Project in the South Australian Department of Child Development. This is a three year project which commenced in 2010. It will ultimately involve a total of 30 primary and high schools. At the time the data for this paper was extracted, records from 20 schools, 175 teachers and over 2000 students had been collected. The schools are all located in low socio-economic catchments and range from small rural schools through to large urban schools. The research utilises several methods and instruments developed specifically to examine the relationship between pedagogy and student engagement. Quality of pedagogy is defined by the Teaching for Effective Learning Framework. This comprises 18 elements organised into 4 domains

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7 The TfEL framework is available at www.learningemergence.net
The TfEL framework comprises a set of resources to support teacher professional development. It was also used as the basis for the development of a measurement instrument. Data is collected against this instrument by trained observers and each observation is book-ended by brief interviews. The pre interview is used to ascertain the teacher’s intent for the session to be observed and to understand where the teacher is in a given teaching and learning cycle with the students. The post interview is used to de-brief and hear from the teacher about how the session went, any changes made on the fly and what prompted these. These interviews serve to contextualise the observations. The observation itself is of at least one full lesson. Observations are taken at the beginning of the research (at the time that the school or teacher enters a cohort) and when the teacher leaves or at the end of the research. For the sessions observed in this study, each involved three independent observers scoring against the instrument. Prior to the post observation interview the observers discuss their individual scores and arrive at a consensus view. The scores resulting from the consensus are those reported here. Analysis is made of the independent scores to check the degree of consistency and convergence of scoring (intrarater agreement) for this data intrarater agreement is measured by the rwg score proposed by James et al (1984, 1993). The majority (64%) of scores fall between 0.9 and 1 (very high agreement) with a further 26% falling between 0.6 and 0.8 (moderate to high agreement). Only 10% fall between 0.4 and 0.6 (low agreement).

Teachers were also interviewed at the commencement of their involvement in the research. An open ended exploratory interview was conducted lasting approximately 45 minutes. These interviews comprised three broad questions. The first asked teachers to describe if and how their teaching had changed throughout their career. The second asked them to describe a recent teaching session they had conducted which they thought had resulted in deep student engagement. The final stage asked teachers to think about a rich learning scenario with their current class and suggest how they would use the learning opportunities in the scenario to personalise learning and support engagement by different learners, focusing in particular on learners who often found it difficult to engage.

**Overall patterns in quality of practice**

In the remainder of this section we present data based on observations of all 175 teachers collected using the TfEL measurement and demonstrate that the areas of weakest practice overall correspond with those aspects of teaching which were most strongly linked to the authentic learning stories in the UK evidence. This reinforces our argument that script based learning practices, which are associated with only superficial or low engagement, are deeply entrenched in our educational systems - they are the norm. We then provide a quantitative summary of coding from 50 of the open ended interviews conducted with teachers. These demonstrate patterns consistent with assumptions of learning as script and learning as design. Again, learning as script emerged as the norm and learning as design as the exception - enacted by only a minority of practitioners.

Figure 2 shows the relative strengths and weaknesses of practice observed in the 20 schools included in the study at the time this data was extracted. The figure presented is of the median score for each element of the framework. The scale has been removed due to stakeholder sensitivity about the data. What is significant in this diagram is that those dimensions of practice which were weakest are those that were found in the UK Learning
Futures work to support the development of authentic experience and deep engagement. These include: negotiate learning, explore the construction of knowledge, connect learning to students lives and aspirations, and apply and assess in authentic contexts. How do we explain these patterns in the observed behaviour?

The overall distribution of scores for the observed sessions was such that it appeared multimodal. There were significant qualitative shifts in the patterns of relative strength and weakness in the scores across the spectrum of overall score. It is important to note that age, length of experience and educational qualification were eliminated as explanatory variables for these patterns. This suggested that there may be different groups of teachers who held different beliefs or assumptions about learning. This hypothesis was then examined using the rich narrative data available through the open and exploratory interviews which had been conducted with a sample of the teachers at the beginning of their involvement in the study.

![Figure 2: Observed scores against TfEL quality of pedagogy elements](image)

**Teacher Data**

Analysis of the responses at interview identified two broad patterns in the ways teachers understood their approach to their task. We labelled these (i) Teaching as script and (ii) Teaching as dynamic design.

**Teaching as Script**

Teacher’s who reflected the script based approach (shown in red on figure 3) placed an emphasis on the content of the curriculum and perceived teaching as being about sequential progression, using a high degree of explicit teaching. They were self-referenced—seldom discussing learners during the interview. They also showed a marked inability to think on their feet, relying on planned approaches rather than being able to adapt and
innovate in their teaching in order to respond to learner needs. They were tentative and not creative in their approach when confronted with a rich learning scenario.

This group made up a significant proportion of the sample. Again it was established that this orientation to practice was not predicted by age, experience or qualification but reflected a difference in understanding of role that was as likely to occur in a teacher just out of college as it was one who had extensive experience.

**Teaching as Dynamic design**

This group (shown in blue in figure 3) made little use of structure and explicit teaching but rather demonstrated a strong capacity to think on their feet and to create safe conditions and develop expert learners. In particular they had a strong orientation to fostering deep understanding and to teaching students how to learn. Members of this group were reflective about their own pedagogy and showed no particular need for control. They were strongly facilitative in their practice and demonstrated a creative and dynamic approach both to the initial design of sessions and in responding to events which arose within a session and they communicated in multiple modes. This enabled them to personalise the learning to respond to the needs of different learners and this was backed by their concern to build relevance by connecting learning to student’s lives and aspirations and supporting students to apply and assess learning in authentic contexts.
The similarities and differences between the two groups are summarized in Figure 3 above. This chart is based on standardised scores derived from code counts made against the TfEL Elements as well as additional variables derived from bottom up coding of the interviews.

**The script vs dynamic design view in practice**

Having identified these two different ways in which teachers think about and explain their role and the different emphases they place on different aspects of practice, it was then possible to compare these two groups with their observed scores on the Teaching for Effective Learning framework. (C. Goldspink, 2007b, 2008) (Foster, Le Cornu, & Peters, 2000). As can be seen, teachers with a dynamic design approach were observed to demonstrate much higher levels of quality of practice as measured by this framework when compared to the script based teachers. This was the case across all elements. These teachers were much stronger against those aspects of practice identified in the earlier section as linked to deep engagement and the development of authentic accounts of self as learner.

![Figure 4](image.png)

*Figure 4 Relative observed scores for the dynamic design compared to the script based approaches.*

The following extracts from the interviews reveal some of the differences in the way in which teachers narrate their role and the place of the learner:

**Teaching as Dynamic design**

**Case 1**  
But often they would come up with amazing ideas and thoughts ... so each individual child could contribute at a class discussion type level about what do you think we might find or where do you think we might take this further..... I’d try and link that back, similar to the way that the science connections units have actually got those...
inquiry questions built into them, so that the children are asking questions that you then take away and research and do that as a class.

Case 23 Yes, yes, well I've done that with various age levels. Especially with the older kids you can actually get into a proper debate, so you're looking at both sides of the argument. But also try to encourage them, okay, if we're looking at pollution, let's look at our school and what are the issues here and what can we actually do about it, and then how it might impact on the greater community environment. ... so it's okay to just be talking about it, yes, but what are you going to do about it. I think action is really important too.

The language used in these interviews is responsive to students' needs, with teachers adapting their approach in the light of what happens in the context. In contrast, teachers whose transcripts were coded as 'script' oriented, tended to refer to the curriculum guidelines or to the knowledge that the teacher is setting for the students to learn.

**Teaching as Script**

Case 1  
[I'm] testing the students to work out prior knowledge, and then looking at documents that exist on logical sequences, logical sequencing of teaching...and that works really well in some subject areas more than others. Because that sort of background doesn't exist in some areas still. There is no document, for instance, that tells you teach this and then you teach this, and so on.

Case 11  
How children learn? OK, this is hard, you're put me on the spot. Alright, children, I think they learn by experience and repetition, lots of repetition.  
.......OK, so at the beginning, I like to always start with some sort of explicit teaching, like most of the time, unless they already know what they're doing and then we'll revise. Yes, so we'll start with what it's all about, and they have a bit of a practice as a whole group, we'll practice as a whole group doing something on the board.

Case 25  
Well, it's the way they speak, and we do set topics for talks and news, they have some choice, you know, some weeks where they have their own choice. And they present information.

**Discussion**

The student narratives presented in this paper show distinct patterns in the ways in which learners ‘narrate themselves’ as learners. The language used in these stories reflected three levels of connection to the self-as-learner: impoverished, externalised and authentic. Only the latter is associated with deep engagement in learning. The teacher's narratives about themselves and their practice reveal two alternative accounts of their teaching practice. One is externally derived and focused on the transmission of knowledge and the other is authored by teacher and focused on students taking ownership of their own learning. What is common between students and teacher’s data is the location of the self in relation to knowledge, and at the heart of this is the agency of the learner, or the teacher. Are they able to form their own judgements and make their own informed decisions (about learning or teaching) or are they following a script pre-scribed for them by the curriculum.

The richness of the language-in-use reflects the degree to which a learning environment affords opportunities for deep learning. In the Learning Futures sample, the most impoverished language for learning was found in a school which was high performing in terms of standardised outcomes, drawing on families from middle and high income brackets. Conversely the richest language for learning emerged from a school with 60%
ethnic minority students, in a low-income community. The learning culture which is intentionally, or unintentionally created in a school makes a significant contribution to the accumulated lived emotional experience, values, attitudes, beliefs, schemas and affect - ‘perezhivaniya’ - that students bring to their learning (Del Rio & Alvarez, 1995; Vygotsky, 1962/1934, 1978). The students’ family, home and community environment contributes primarily to this ‘perezhivaniya’ and one of the significant questions arising from this work is the extent to which families and communities uncritically ‘buy in’ to the dominant ‘transmission’ model of schooling. Thus they do not generate language and values which support deep learning and this may help to explain the plateau in achievement in high performing schools. This emotional and experiential element of Vygotskian theory has been seldom emphasised in constructivist approaches to pedagogy.

At the heart of the difference between script and design orientations are the concepts of agency and meaning. In the case of the ‘script orientation’ agency is located external to the learning relationship as is meaning and knowledge generation. In the design based view the teachers uses his or her agency to enable the student to become agents of their own learning and architects of their own meaning and knowledge generation.

In order to describe this difference we created a Knowledge Agency Window (Figure 5) in which the vertical axis moves between knowledge as a pre-scribed entity and knowledge as co-generation, and the horizontal axis moves between teacher directed learning and student-led enquiry. Teaching as script and learning as 'doing what the teacher says' are located in the bottom left quadrant, while authentic learning and knowledge co-generation are located in the top right quadrant. Our argument is not that one quadrant is necessarily better than another, but that if our education systems are to produce learners able to take responsibility for their own learning over time, then teachers and learners need to be familiar with moving between all four quadrants. This is difficult where, as is suggested in our evidence, the worldviews which legitimise each operate as unquestioned, mutually exclusive positions deeply embedded in narrative accounts of self and role.

When asked, students and teachers in the Learning Futures project, argued that a healthy curriculum would involve a mix of somewhere between 40% and 60% of student led enquiry (upper right quadrant) and content/expert led teaching (lower left quadrant). Our argument is that when schools are able to operate in the student-led enquiry quadrant for a substantial part of the formal curriculum, then students are more likely to become aware of themselves as learners and take responsibility for their learning over time, including purposefully accessing formal, expert knowledge when they need it. Unfortunately the evidence from our studies, particularly the relative strengths and weaknesses of the aspects of pedagogy shown in figure 2.0, suggests that many of the key dimensions of teacher practice that would support student-led enquiry are weak, if not absent. This means that most learners experience pedagogy which is almost exclusively content/expert led teaching.
Figure 2.0 also highlights an overall weakness in aspects of pedagogy key to supporting students in re-framing their actual learning identity and in re-defining their designated identity i.e. their purpose. These weaknesses indicate a lack of attention to ‘person’ and ‘context’ which is fundamental to teaching as learning design. Being responsive to ‘person’ and ‘context’ suggests a wider repertoire of learning relationships within the classroom in which teacher move seamlessly between the positions of ‘expert’, ‘coach’ ‘mentor’ and ‘counsellor’ as appropriate.

The absence of any environmental influences on teachers’ accounts suggests that the differences do come down to deep assumptions or world-views, in particular teacher’s assumptions about knowledge (epistemology) and learning. Where these differences come from is an open question. However the fact that they show no relationship to age, and length of service rules out experience effects. Similarly, exposure to different levels of teacher education is ruled out due to the lack of relationship to educational attainment. It therefore seems likely that these are formed from early life experience, probably including their own experience of school as well as wider public discourse about teaching and learning. The fact that these are not challenged or displaced through teacher education is particularly concerning. The evidence strongly suggests that the script based approach to teaching is inconsistent with an approach to professional practice which will result in deep engagement in learners and the development of learners who have a strong sense of their own ability, and a sense of agency – important skills for the 21st century.

Conclusions
Of the two sets of narratives – those of students and those of teachers – both can be characterised as learning as script or learning as design. For students learning as design is about narrating their own meaningful learning journey and exercising agency within negotiated boundaries, whereas for teachers it is about orchestrating the boundaries and facilitating the processes of learning for students - supporting them to find the space between their actual and designated identity. At the same time teachers are essentially negotiating their own professional learning within negotiated boundaries. For school leaders too it is about orchestrating the boundaries and facilitating the processes of learning for teachers, so we can say that learning as design is fractal in its social structure. Leaders need to support teachers to find their own space between their actual and designated identities as educators and to support teachers in developing their own agency - agency associated with a responsive and dynamic - design based pedagogy.

Learning as design represents a radical shift in worldview, one which is not a part of the ways in which we currently organise schooling or indeed any other formalised learning context. Examples where it has authentically informed practice can be found although they have proved difficult to sustain. The evidence presented here helps to explain why this is the case. The fact that these alternative accounts are deeply embedded in shared narratives – their deep systematicity – means that learning as script can be thought of as a stable attractor maintained at multiple levels, for example policy, curriculum, control oriented leadership, school evaluation and assessment. Intervention at only a few of these levels – providing just professional development for teachers for example – will not be sufficient to trigger a change. Effective leaders may, through sustained effort, build a stronger capacity for dynamic design among staff at the site, only to have it diluted every time new staff are recruited – bringing with them the wider norm of teaching as script. Policies which give leaders more control over recruitment and reward may be a part of a solution but again not in isolation of attendance to the wider systemic factors which sustain the script orientation.

On top of this, in the face of this evidence, many recent reforms which have attempted to drive improvement by imposing one-size fits all approaches to teaching will reinforce the script based orientation and drive out a capacity to design for individual teachers and learners. The same is true of the institution of formal standardised assessment regimes. Inadvertently then, many of the reforms of the past decade may have made the problem worse rather than better.

For future school reform, triggering a transition from a script based attractor to a learning as design based attractor should be a focal point for education policy. Existing research, including our own, is giving insights into how this can be achieved at individual practitioner and leadership levels but this is not sufficient for sustained change at a whole system level.
References


