Student-Driven Learning Strategies for the 21st Century Classroom

Nor Aziah Alias Universiti Teknologi MARA, Malaysia

Johan Eddy Luaran Universiti Teknologi MARA, Malaysia

A volume in the Advances in Educational Technologies and Instructional Design (AETID) Book Series



Chapter 1 Developing Student Driven Learning: The Patterns, the Context, and the Process

Chris Watkins University of London, UK

ABSTRACT

The aim of this chapter is to introduce some contextual and conceptual matters which can affect the development of student-driven learning strategies. There are four sections. The first connects the rationale for student-driven learning strategies with what we know about dominant patterns in the classroom. The second offers a multi-level view of key issues in the context that can help or hinder development. The third makes suggestions about the process of development of student-driven learning strategies. A final section considers definitions.

INTRODUCTION

When classrooms were first created on this planet in Sumeria 50 centuries ago, they contained patterns of interaction which have survived to this day. Teachers control the topic, the interaction and the evaluation. These patterns of interaction are evident in school classrooms across the world (Cazden, 2001). So to a major degree the varying cultures across the world have been superimposed by the immediate culture of the classroom.

In school teaching of maths and science, a large international video study concluded "Looking across the results presented in this report, there is no country among those that participated in the study that is distinct from all the other countries on all the features examined in this study" (Hiebert 2003 page 121). In such a context detailed twentieth century studies of learning issues in classrooms using hidden microphones and cameras have highlighted a core issue, summarised as "The Hidden Lives of Learners" (Nuthall, 2007). What becomes clear is that learners' processes are unknown and just because a teacher is teaching, does not mean students are learning.

DOI: 10.4018/978-1-5225-1689-7.ch001

Do any of these patterns linger into higher education? One possibility is that lecturing could be handled and seen this way. As a Brazilian student in UK put it: "They teach you something and go" (Welikala 2008).

But when we ask the key question "How does achievement happen in such contexts?" our attention shifts to the learner and their powers of self-regulation. A study in Slovenia found 'different areas of self-regulation could explain 34% of variance of school performance in the primary school, about 21% in the secondary school and nearly 14% in the university education' (Vukman & Licardo, 2010: 267). This is one of the largest effects from a single variable, yet it is a variable that is mostly hidden in the lives of classrooms, but it is having a significant effect. How do we explain the reducing proportion explained by this variable? The authors suggest that it is because the data is based on learners' self-assessment - the older students have automatised more of self-regulative processes than younger, they may not be aware so much that they engage in these processes. Another possible explanation is that those who have self-selected to enter higher education are amongst the higher scorers on this variable, so the scale of variation is reduced.

Key aspects of the self-regulated learner have been described as Self Managing, Self Monitoring, Self Modifying (Costa & Kallick, 2004). In everyday terms, when I ask adults and young people to think about a time when their learning was going really well, and then ask them to indicate the degree of match with the following elements:

- 1. You had some sort of Goal, more or less well-defined, anywhere between "clear" or emergent.
- 2. You were knowingly trying out your Approach/Strategy.
- 3. You were getting Feedback, either directly from your own observation, or interpreting others'.
- 4. You were adding Variations to what you were doing.

The degree of match is high.

So the development of Student Driven Learning Strategies is a way of bringing to the surface and making explicit the processes which drive learning and performance anyway. Some students recognise this at an early stage, as 12-year old Gwen said:

One thing I'm learning is learning how to learn, because when I grow up and I'm in a working force, if I need to know something a teacher's not just going to pop out of thin air and give me the information. (chriswatkins.net/classroom-videos)

This chapter deliberates on facets of learner driven learning that include learner agency, teacher agency and organization agency.

AGENCY AND CONTEXT

A valuable concept for this topic is that of agency. It refers to the human capacity to act intentionally, notice one's effects and make a difference. Straightaway that is a capacity which many take for granted (and perhaps don't talk about as a result), but others struggle to develop. So it is important to recognise that although agency is a core human capacity, it is something which is achieved/developed. This is recognised in the fridge magnet saying: "Children are born with wings: teachers help them fly".

Learner Agency

So we can now start to examine how learner agency is developed in the key context of the classroom, and how the context surrounding the classroom can help or hinder. As a basic image of student-driven learning we may ask:

Are learners invited and helped to: View themselves as driving the learning, contribute their own questions, strategies and explanations, choose their challenges, develop their criteria, and assess their progress?

This image immediately tells us that we are not talking about a classroom package because that would be likely to have low agency for learners and for teachers. This point is worth remembering in light of the experience that learning-centred developments when packaged have been described as "lethal mutations" of the key principles (Brown& Campione 1996).

The link between participants comes to our attention. If the "one-to-many" relationship between teachers and learners is to change, then peers come to be co-learners and learning is distributed amongst the many. When agency is shared and distributed in a classroom we are also building the key elements of a classroom as a learning community: "In classrooms where a sense of community is built, students are crew, not passengers" (Watkins 2005: 47).

Teacher Agency

If we are not talking about a package, agency for teachers comes to our attention. This is important, because in the school context large projects aiming to develop learning-centred classrooms found that of many interventions and supports for teachers there was only one element which characterised successful development: inquiry (Pedder, 2006). This also brings an integrating perspective for teachers in school, college or university: they can very usefully be regarded as "lead learners" in the classroom context. It then acts to bring a connecting dynamic between teachers. When teachers view themselves as lead learners, they share with each other their reflections and enquiries; they explicitly allocate time to furthering their own learning together.

My most recent experience of being lead learner is with teachers studying for their Masters degree. One module was "Building Learning Communities" and this was operated in a way which accorded with the goals and messages of the module (Watkins, 2004). Classroom practices included reciprocal teaching (Doolittle, 2006) and jigsaw groupwork (Perkins 2001). The degree of engagement was very high, so part of my own learning was adjusting to the feeling that I didn't have a role. But there was one role which group members never took up - that of inviting the group to review their learning experience each session, usually at the end of the session. A significant part of the assessment was the "Community Product" to which all contributed, a text designed to convey major learnings to colleagues who were not on the course. Student evaluations of the module were very positive and the assessed products met the Masters level criteria more highly than other modules.

Agency in the Organization

At the next level we consider agency in the organisation. For student-driven development, the organisation needs to treat its teachers as learners too. This is more likely to happen if leadership is widely

distributed in the organisation, not limited to a narrow hierarchy. Universities have a good basis for this if staff expertise in disciplines as knowledge-creating communities is valued. Similarly if universities as organisations maintain a sense of agency it may help them retain a sense of driving their agenda rather than being driven (Watkins 2012).

The exercise of political influence on education systems may carry mixed messages about agency and learning. But here again an explicit focus on learning is effective. The two countries in which the Ministers for Education talk about learning are also the two countries which regularly appear at the top of international performance tables: Finland and Singapore.

Culture and Context

At the largest scale of these considerations of context, it is valuable to consider the messages in our culture. Most cultures carry key messages about personal agency, and personal/spiritual belief systems can have very positive messages. But they may also have messages about roles and relations, as Lee, from Hong Kong put it "in my culture, we are trained to listen to adults and parents. No questions. This transfers into the school and then to the university" (Welikala & Watkins, 2008).

Across our country cultures the twentieth century has been characterised in multiple ways, and implications for learning are stated. For example: "More often than not, 21st century learning is technology driven." This seems to place agency in the hands of machines. Certainly technology has changed our lives in a range of ways, but faster access to information does not constitute learning. A community in South Africa recently addressed "gamification". Exploring this word reveals many examples of computer activities which claim to develop skills. But none paid attention to the metacognitive skills which are required to apply skills into a new situation. So it was time-consuming computer activity. On the other hand, those with a rich view of learning have developed technology-supported activity with impact. For example recent evidence using Knowledge Forum shows that school learners in Canada who are supported in talking up a meta perspective on their processes demonstrate richer understanding, greater complexity of meaning, and more connected online discourse than those who are not supported in this way (Resendes et al, 2015). And tertiary students in China whose computer-supported knowledge-building environment engaged them in more collective activity and meta-discourse also performed better (Zhao & Chan, 2014).

DEVELOPMENT ISSUES AND PROCESS

When a development is contrary to the dominant culture and way of talking, this needs to be made explicit as part of *naming the problem*. We need to foster a widespread awareness that some of the current climate may be having counter-productive effects in the classroom. I find that asking teachers to share the thinking generated by the following question creates a useful moment and momentum: "Which do you think happens more often: is it: learning without teaching? Or teaching without learning?". These conversations can bring in analysis of learning contexts other than the traditional classroom, together with what we can learn from them.

Next it can be important to identify some of the predictions which can be made. Some would have us expect a "bumpy road" to student-centred learning (Felder and Brent 1996), based on an idea that students would go through some or all of the steps psychologists associate with trauma and grief. Those

Developing Student-Driven Learning

who do not hamper themselves with such predictions find that graduate students in learner-centred classrooms "felt that the approach contributed to their feeling respected as learners, developed their critical thinking skills, and encouraged their self-directedness" (Wohlfarth 2008). One said "I feel that it was the first time I was treated as a competent and intelligent person who could be trusted with her learning experience" (page 70).

A further element of promoting learner-driven learning is *identifying the way ahead*. This has two major elements: content and process. The "content" here refers to the methodology, the ways of handling student-driven learning in the university classroom. Again, an explicit recognition that the methods are not those of the dominant culture can help us identify a process for development. Appreciative Inquiry (Hammond, 2000; Cooperrider 2003) is effective in by-passing dominant cultural constraints by focusing on best experiences. It asks participants to:

- Inquire into their best experiences,
- Imagine what might be if more of these occurred,
- Innovate by identifying how to get more, and
- Implement changes in this cycle.

Carnell (2007) has demonstrated that when asked about best experiences, university teachers focus on students' learning. There was also "an explicit shift from a constructivist to co-constructivist approach. Distinguishing features include facilitating a community of learners, learning through dialogue and sharing responsibility for teaching and learning" (page 30). In this study some university teachers also identify their own learning about learning. 'Meta-learning is the process of making sense of your experience of learning' (Watkins, 2001) and can be furthered using classroom activities which:

- Make learning an object of attention,
- Make learning an object of conversation,
- Make learning an object of reflection, and
- Make learning an object of learning.

As the early studies of university students in Sweden and Scotland helped us see, conceptions of learning vary from superficial to deep (Marton et al 2005), and the progression from surface to deep is aided by classroom processes including student-driven learning and meta-learning. This helps achieve an important aim identified by interviewing students in Hong Kong: "courses should aim to help students make the difficult transition to the belief orientation of the more experienced students as a means of assimilating students into higher education" (Kember 2001).

In this area, there is value to phrases such as "student-driven learning" or "learners in the driving seat" (Watkins, 2009) because the everyday metaphor of driving provides everyday language for examining the process further. For example, core skills of planning, monitoring and reflecting can be talked about

- Before starting:
 - Where do we want to get to?
 - Which way should we go?
 - Is there a useful map?
 - What did we learn from previous journeys?

• On the road:

- How's it going?
- Do we need to modify our plan?
- Shall we check back on the map?
- Has anyone taken another route?
- What else is noticeable?

• Journey's end:

- Where did we get to?
- Is this the place we planned?
- What was most effective about our plan and our driving?
- Where next?

If we develop rich conversation about learning, we are also likely to develop a link between levels, student learning and teacher learning, As Carnell (2007) found "These university teachers also prefer their own learning experiences to be based on co-constructivist approaches" (page 33).

The link to the largest level also becomes possible: Intercultural learning. University intakes are increasingly attracting students from a range of cultures, and there are important implications for conceptions of learning. Welikala uses the concept of cultural scripts for learning and argues that meeting a new culture can involve processes of coming to know and "unknow" one's own cultural scripts (Welikala 2011a). From this perspective the development of intercultural learning spaces offers rich opportunities for identifying the "taken-for-granted" assumptions we bring in our cultural scripts for learning, and possibly moving beyond them for greater agency in learning. The current picture is not always positive: in Britain higher education "international pedagogic contexts largely ignore the cultural differences of learning and assimilate students to Western ways of knowing" (Welikala 2011b).

In various ways we might be led to believe that the development of learner-driven strategies is a daunting task but the benefits can be very significant.

DEFINITIONS AND THEIR DEVELOPMENT

The developmental process does not necessarily require generating a definition of student-centred learning, but various definitions are to be found in the literature, and their dynamics can affect development. It is common to find student-centred learning defined as a contrast to teacher-centred learning (e.g. Huba & Freed 2004). This can be destructive to the development process as some teachers feel that they are being invited to have an insignificant role. Rather than define student-centred by contrast to teacher-centred, or indeed by opposition, we need a definition which shows what an extension of the teacher's role this is.

A very grounded example of this is given by Paris & Combs (2000) who interviewed teachers who were practised in this field, and identified five elements in their accounts: "the teacher's focus is on the learners; the teacher guides and facilitates learning; the teacher promotes active learner engagement; the teacher promotes learning through interactive decision making; and the teacher is a reflective, ongoing learner" (page 2).

Studies of students' views of student-centred learning also raise important issues. Focus groups with 48 undergraduates found: "Despite being unfamiliar with the term, students came up with various ideas about what such an approach might embody. All students thought that student-centred learning could

Developing Student-Driven Learning

have positive implications for their learning experience" (Lea et al, 2003 page 326). Elements of their definition included "An active mode of learning with lectures more interactive, group work, getting the student to think, be creative, facilitates retention" and "Students more responsible for and in control of their own learning, become more independent, personal accountability, an empowering process" (page 327). At the same time they were hesitant about the capability of their university to implement such an approach successfully and "they expressed anxiety about an approach that lacked structure, guidance and support in the name of being student-centred" (page 331).

The definitions of teachers and students given above create a rich set of possibilities when they are brought together, and this would involve them interacting together to create a learning situation that was different from the conventional. This view reflects the core of social psychology which views social interaction as creating a shared definition of the situation. Both the main parties are skeptical about an unstructured shift, so we need to focus on interaction and negotiation, through which we would see the development of trust, and the new exercise of agency by learners. While some authors make suggestions as to how curriculum design and assessment need to change (O'Neill & McMahon, 2005), the key change is in the situation itself. The definition of learning becomes more building knowledge with others, rather than individual memorizing. This applies to teachers as well as students, as mentioned in one of the tenets of student-centred learning: "a reflexive approach to the teaching and learning process on the part of both teacher and learner" (Lea et al, 2003 page 322). In the most developed cases this would probably include an explicit element of metalearning (Watkins, 2015).

So student-centred learning can be defined as any situation in which teachers and learners create a lived definition of learning which emphasizes student agency.

REFERENCES

Brown, A. L., & Campione, J. C. (1996). Psychological theory and the design of innovative learning environments: on procedures, principles, and systems. In L. Schauble & R. Glaser (Eds.), *Innovations in Learning: New Environments for Education*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Carnell, E. (2007). Conceptions of effective teaching in higher education: Extending the boundaries. *Teaching in Higher Education*, 12(1), 25–40. doi:10.1080/13562510601102081

Cazden, C. B. (2001). Classroom Discourse: The Language of Teaching and Learning (2nd ed.). London: Heinemann Educational.

Cooperrider, D., Whitney, D., & Stavros, J. M. (2003). *Appreciative Inquiry Handbook*. Bedford Heights, OH: Lakeshore publishers/McGraw Hill Europe.

Costa, A. L., & Kallick, B. (2004). *Assessment strategies for self-directed learning*. Thousand Oaks, CA: Corwin Press. doi:10.4135/9781483328782

Doolittle, P. E., Hicks, D., Triplett, C. F., Nichols, W. D., & Young, C. A. (2006). Reciprocal teaching for reading comprehension in higher education: A strategy for fostering the deeper understanding of texts. *International Journal of Teaching and Learning in Higher Education*, 17(2), 106–118.

Felder, R. M., & Brent, R. (1996). Navigating the bumpy road to student-centered instruction. *College Teaching*, 44(2), 43–47. doi:10.1080/87567555.1996.9933425

Hall, J., & Saunders, P. (1997). Adopting a student-centred approach to management of learning. In C. Bell, M. Bowden, & A. Trott (Eds.), *Implementing Flexible Learning*. London: Kogan Page.

Hammond, S. A. (2000). The Thin Book of Appreciative Inquiry. Retrieved from www.thinbook.com

Hiebert, J., Gallimore, R., Garnier, H., Givvin, K. B., Hollingsworth, H., & Jacobs, J. et al. (2003). *Teaching Mathematics in Seven Countries: Results From the TIMSS 1999 Video Study*. Washington, DC: U.S. Department of Education National Center for Education Statistics.

Huba, M., & Freed, J. (2000). Learner-Centered Assessment on College Campuses: Shifting the Focus from Teaching to Learning. Boston: Allyn and Bacon.

Kember, D. (2001). Beliefs about knowledge and the process of teaching and learning as a factor in adjusting to study in higher education. *Studies in Higher Education*, 26(2), 205–221. doi:10.1080/03075070120052116

Lea, S. J., Stephenson, D., & Troy, J. (2003). Higher education students' attitudes to student-centred learning. *Studies in Higher Education*, 28(3), 321–334. doi:10.1080/03075070309293

Marton, F., Hounsell, D., & Entwistle, N. (Eds.). (2005). The Experience of Learning: implications for teaching and studying in higher education (3rd ed.). Edinburgh, UK: University of Edinburgh, Centre for Teaching, Learning and Assessment.

Nuthall, G. (2007). The Hidden Lives of Learners. Wellington, NZ: NZCER.

O'Neill, G., & McMahon, T. (2005). Student-centred learning: What does it mean for students and lecturers. In G. O'Neill, S. Moore, & B. McMullin (Eds.), *Emerging Issues in the Practice of University Learning and Teaching*. Dublin: All Ireland Society for Higher Education.

Paris, C., & Combs, B. (2000). *Teachers' Perspectives on What It Means To Be Learner-Centered*. Paper presented at the Annual Meeting of the American Educational Research Association.

Pedder, D. (2006). Organizational conditions that foster successful classroom promotion of Learning How to Learn. *Research Papers in Education*, 21(2), 171–200. doi:10.1080/02671520600615687

Perkins, D. V., & Saris, R. N. (2001). A "jigsaw classroom" technique for undergraduate statistics courses. *Teaching of Psychology*, 28(2), 111–113. doi:10.1207/S15328023TOP2802 09

Resendes, M., Scardamalia, M., Bereiter, C., Chen, B., & Halewood, C. (2015). Group-level formative feedback and metadiscourse. *International Journal of Computer-Supported Collaborative Learning*, 10(3), 309–336. doi:10.1007/s11412-015-9219-x

Vukman, K. B., & Licardo, M. (2010). How cognitive, metacognitive, motivational and emotional self-regulation influence school performance in adolescence and early adulthood. *Educational Studies*, *36*(3), 259–268. doi:10.1080/03055690903180376

Watkins, C. (2001). Learning about Learning enhances Performance. London: Institute of Education School Improvement Network (Research Matters series No 13).

Watkins, C. (2004). Classrooms as Learning Communities (Research Matters series No. 24). London: University of London Institute of Education.

Developing Student-Driven Learning

Watkins, C. (2005). *Classrooms as Learning Communities: what's in it for schools*. London: Falmer-Routledge. doi:10.4324/9780203390719

Watkins, C. (2009). Learners in the driving seat. School Leadership Today, 1(2), 28–31.

Watkins, C. (2012). Driven or driving? Flat or flying? The state our schools are in. *School Leadership Today*, 4(2), 102–104.

Watkins, C. (2015). Metalearning in classrooms. In D. Scott & E. Hargreaves (Eds.), *SAGE Handbook of Learning* (pp. 321–330). London: Sage. doi:10.4135/9781473915213.n30

Welikala, T. (2008, June 19). Explaining the unfamiliar. Times Higher Education, 26.

Welikala, T. (2011a). Living the interfaces: coming to (un) know in another culture. In S. Trahar (Ed.), The Doctorate: international stories of the UK experience (pp. 10-15). Bristol, UK: Higher Education Academy.

Welikala, T. (2011b). *Responding to Cultural Scripts for Learning: Addressing International Pedagogies Meaningfully*. Paper presented at the American Education Research Association (AERA) annual meeting.

Welikala, T., & Watkins, C. (2008). *Improving Intercultural Learning Experiences in Higher Education: Responding to cultural scripts for learning*. London: Institute of Education.

Wohlfarth, D., Sheras, D., Bennett, J. L., Simon, B., Pimentel, J. H., & Gabel, L. E. (2008). Student Perceptions of Learner-Centered Teaching. *Insight: A Journal of Scholarly Teaching*, *3*, 67-74.

Zhao, K., & Chan, C. K. (2014). Fostering collective and individual learning through knowledge building. *International Journal of Computer-Supported Collaborative Learning*, 9(1), 63–95. doi:10.1007/s11412-013-9188-x