The role of agency in learning

Agency describes the ability to identify valued goals and desired outcomes, and to pursue those goals and outcomes proactively, purposefully and effectively. The key components of agency include:

- the thoughtful identification of one's values and priorities

- a belief in one's abilities

- the capacity to intentionally direct one's efforts towards specific goals[1]

It is important that agency is understood in educational contexts to incorporate both action and intention.

The concept of agency is derived from the fields of sociology and psychology, and has been used in different ways for different purposes in education. It is sometimes used interchangeably with concepts like proactivity, autonomy, the ability to exercise choice, and self-regulation. This conceptual instability, combined with a limited empirical evidence base, means that the evidence for the role and impact of agency is less emphatic than that for other, more stable concepts such as self-efficacy.

While some factors of social emotional learning, such as self-efficacy, motivation or engagement, may be lower in some domains and higher in others, agency is a characteristic specific to an individual.[2] Students have a sense of agency in guiding their own educational pathways as a whole regardless of how they feel in specific content areas. Importantly, it is malleable, and teachers can support students to develop their sense of agency.

The benefits of an agency-focused education are not controversial: indeed, some are fairly obvious. Agency supports all aspects of achievement while students are at school as well as powerfully setting them up for life beyond school. Agency, like many other factors of social emotional learning, is both an enabler of success at school and an outcome of schooling.

The building blocks of agency

While agency is complex, it comprises several core components, all of which can be developed and supported by teachers in the classroom.

Self-efficacy: Confidence in one's abilities

Students' beliefs in their own abilities affect the degree to which they feel stress when confronted with a problem. Students with low capability beliefs will feel threatened when they are assigned difficult problems[3] and may react with anxiety, depression, anger or frustration when they feel threatened by activities that they do not feel equipped to accomplish. Students may shut down or act out due to low self-efficacy when given a challenging problem or assignment. Conversely, students with high competency beliefs do not feel threatened by taxing or confusing problems. They know that they can work through them with effort, drawing on their stable confidence. Associating optimistic outcome beliefs with difficult academic tasks largely dictates the extent to which students seek out and engage in challenging academic assignments and courses. This is a self-perpetuating cycle because the more a

student pushes through a difficult task, the stronger their skills become, leading in turn to higher personal self-efficacy.

Self-awareness: Thoughtful identification of one's values and priorities

A student who clearly understands their personal values has a much stronger drive to actively pursue their goals. Whether consciously or not, students' values and priorities shape every decision they make regarding their education. Clarifying these priorities is a valuable yet often ignored step for students in setting proximal and long-term goals and plans. Students who regularly reflect on what authentically matters to them will have a sense of agency in their schoolwork. This self-awareness will push them to actively make changes later in their academic or professional lives if their work misaligns with their personal priorities.

Self-regulation: The ability to direct one's efforts towards specific goals

In an era of constant distractions, students without the internal tools to guide their attention will be at the mercy of their impulses. However, self-regulating students set short and long-term goals, check progress towards those goals, manage their time, and develop positive learning strategies. These students will be able to put their values into practice. The ability to inhibit one's impulses can be especially useful for supporting agentic independence in students with learning differences. Goal-setting and tracking abilities, time management and impulse control are fundamental skills from which to build student agency. Coupled with high confidence in one's abilities and an understanding of one's values, self-regulating students direct their own educational, professional, and personal trajectories.

Individual variation

Some students may be more inclined to develop these skills or may come to school already equipped with a positive sense of agency. These traits are impacted by factors such as the student's home environment and early years, which are out of a teacher's control. However, a sense of agency is highly malleable[4], and there are a number of strategies that teachers can use to support and promote the development of students' self-efficacy, self-awareness, and self-regulation.

The value of prioritising agency in education

Agency is important in educational settings because agentic students act on their environments and life trajectories in thoughtful and purpose-driven ways. A student with a high sense of agency creates rather than responds to educational opportunities. In the classroom, students with a sense of agency regularly communicate their level of interest and express preferences, ask for a say in how problems are to be solved, and seek ways to add personal relevance to the lesson. They will work intentionally by recommending goals or objectives to pursue, soliciting resources or learning opportunities, finding study strategies and spaces that work for them, and seeking clarification or assistance. They will contribute to lessons by offering suggestions or contributions, asking deep questions and sharing their thoughts and opinions. Students who develop a sense of agency are advocates for themselves and the issues they care about.

Agency supports students during their school years

Agency predicts highly valued academic outcomes. For example, students who actively seek clarification or request assistance from their teachers have been found to score higher on standardised exams.[5] Conversely, students who are hesitant to seek help or clarification have lower grades than those who enjoy interacting with their teachers. In addition, students who connect to the deeper meaning of an assignment will also enjoy the task more and experience higher achievement. Finally, students who evaluate how they best focus and act on their findings have higher learning outcomes. In sum, students who seek out ways to personally relate to their learning and find ways to grow and improve

have better academic outcomes. While students will naturally feel a predilection for specific subjects, agency describes the stable internal trait of being able to motivate and regulate their learning across content areas. Agency is variable from one individual to the next, but stable within the individual in various contexts.

Students with a high sense of agency are also much more likely to engage in or lead clubs and sports teams. Agentic students take initiative in social issues that matter to them, and are more willing to regularly challenge themselves and intentionally engage in activities in which they have the opportunity to make and learn from mistakes. Agency can also empower students to promote positive change within their communities, as a belief in one's ability and a willingness to take action can propel individuals and their communities forward. For example, agentic students are more likely to advocate for one another or argue a point with an intimidating counterpart rather than turning a blind eye or feeling disempowered to act when they witness bullying or injustice. Similarly, students who are comfortable sharing their voice and actively engaging in their learning contribute to building a stronger school community.

Agency prepares students for life beyond school

A vital role of education is to prepare students to thrive professionally after they finish school. In order to be successful in today's fast-paced and constantly developing world, students must develop a desire and an aptitude for life-long learning. In a marketplace where companies are increasingly likely to contract the talent they need for a particular job or project, employees must often be responsible for developing skills on their own rather than relying on their employers to provide workplace training. Students entering the workforce will often be in unfamiliar territory in terms of their skills and knowledge base, and, in order to thrive, must have both the capability to determine what they need to learn and the inner drive to learn it, even if it is hard. Agentic people will more actively pursue challenging projects, share their thoughts and opinions, and take on leadership roles within their teams. The unpredictable and evolving nature of the job market today emphasises the need for students to actively take charge of their professional lives and learning.

In a democracy, the wellbeing of the public relies on the active participation of its citizens. Agency directly shapes an individual's democratic citizenship through personal responsibility and a justice orientation. Personal responsibility refers to an individual's propensity to care for their community, while social justice-oriented citizens actively engage in civic and social affairs at the local, state, and national levels. These high agency individuals challenge social, political, and economic injustices, and consider strategies by getting to the root of systemic issues. Citizens with a high sense of agency are the backbone of any thriving democracy. Therefore, part of the role of education in democratic countries must be to energise students to develop their own opinions, share their voice, and take action.

Students who develop a strong sense of agency in their formative years will also be more likely to enter into healthy personal relationships in adulthood. Agentic individuals have a stable sense of self-worth, so they are willing to address issues in interpersonal relationships. A lack of agency in a relationship can, in severe cases, devolve into abuse.

Learning environments that promote student agency

In this new age of seemingly endless information, the opportunities for students are enormous. Self-directed individuals can pursue any skill set or content area that interests them. Students who have a strong belief in their own capabilities and the self-regulation to effectively stick to their goals will exercise agency if their environments are conducive to autonomy. Below are several ways to create such learning environments.

Congruence between students' social and academic identities

This involves ensuring that students' activity in the school community does not conflict with their social worth in their friend group. In traditional schools, students not already strongly committed to an academic identity face powerful pressures, both internal and external, to define themselves in ways that minimise identification with schooling. Internalised voices argue incessantly against the alignment of values with teachers and their academic tasks, making schoolwork seem incompatible with popularity or loyalty to some key reference groups (such as a student's culture, ethnic group, gender, family or peers). By the time they reach high school, very few students engage in groups primarily defined by academic excellence.

However, a classroom that recognises a student's need to keep their social image intact can adapt teaching and learning to fit an agentic academic identity. Creation of identity congruence with academic behaviour can be achieved by building student pride in ethnic and family heritage while opening doors to 'code-switching' and other strategies that deal with the sharply different behavioral expectations of school, the workplace, and peer groupings. When a student evaluates a given academic task as high in personal relevance without a risk to positive social image, the result is a willingness to actively engage with that task and that environment.

Student-directed learning through clear formative assessment

Discussions about assessment in the classroom may focus on marks and grades, the weight of different assignments in comparison to tests and projects, the impact of turning assignments in late, and the amount of material to be covered on tests. Rarely, it seems, do these conversations focus on student learning. In addition, grading often feels final to students. They may not review the comments on marked assignments or take the time to learn the problems they missed on a test because they don't perceive that learning this information will have any impact on their future grade. All this may lead to students feeling disengaged or even disempowered when it comes to their academic outcomes.

Purposeful formative assessment dispels student passivity associated with academic results. For example, a quiz can clearly denote which learning objectives the student has mastered and which they have yet to master. Clear formative assessment supports student agency by communicating a student's specific strengths and areas of growth. A student in this system is better able to determine how to improve their grade based on the most important aspect of education—how well they comprehend and can apply the content of the course.

Autonomy through 'just-in-time' support

While engagement might shift on a day-to-day basis for various reasons, teachers can promote a more stable sense of agency to learn that determines students' orientation towards school in general. Agency is developed by providing the delicate balance of supportive scaffolding with autonomy. Teachers who regularly gauge student understanding will be able to positively manage this balance by giving students a degree of autonomy in their learning while providing instruction on a 'just-in-time' basis. For example, a teacher monitoring a student working on a STEM project may step in to provide explicit instruction on a particular scientific or mathematical principle in order to allow the student to move forward with their hypothesising and problem-solving. Similarly, a teacher might support a group discussion about a novel by providing a piece of contextual knowledge pertaining to the historical setting of the novel that enables the students to draw pertinent insights but does not dictate or dominate the nature of the discussion. This kind of support allows students to continue to work independently or collaboratively towards their learning goals without being held up by a gap in their knowledge.

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Teaching that promotes agency

The following instructional models optimise agency development by encouraging students to decide what they need to learn and how best to learn it in order to be able to accomplish their project. Students discover for themselves the gaps in their current knowledge and seek out resources (such as their teacher) in order to progress.

Problem-based learning

Problem-based and project-based learning create opportunities for students to develop agency by making sense of a problem at the edge of their current understanding or skill level. As they follow similar patterns, only problem-based learning is used below as an example. This instructional model follows a series of steps and may seem more specific than other strategies included here, but teachers should feel free to develop, add to, or eliminate any pieces from the following to better suit their own students. Teachers may also choose to incorporate elements of the model rather than using it as a whole.

- Present the problem

  Students are divided into small groups, and each group is assigned a facilitator. The facilitator's task is to manage group discourse by ensuring that everyone has the chance to voice their thoughts. The students are then presented with the problem 'cold.' In other words, they are not given context. This pushes students to explore various areas of their prior knowledge and make connections between these areas.

- Discuss the problem

  The group then discusses the problem and generates hypotheses of the solution based on any prior knowledge or experience they bring to the table. They then identify several 'learning issues,' which are relevant topics that the students do not feel they understand as well as they should in order to solve the problem. Each student verbally reflects on the problem and potential solutions based their existing knowledge and assumes the responsibility of researching one of the learning issues. Therefore, rather than having pre-assigned learning objectives, students assign themselves objectives (these are the learning issues they identify).

- Engage in self-directed learning

  Following the discussion, students direct their own learning, using the resources they have available in the way they feel is most effective. Resources should always include the teacher, who carefully responds to questions in order to push student thinking further rather than simply supplying the answer.

- Re-evaluate the problem

  The students meet again to re-evaluate the problem using their collective new information and skills. Students also share what strategies or resources they use in gathering information, and how each was or was not useful. This part of the process makes students aware of positive learning habits. As new learning issues arise, students again revisit step three (engaging in self-directed learning).

This cycle is repeated generally over a period of five to six weeks, with smaller sub-questions along the way. However, the length of time on each problem is up to the teacher's discretion.

Student-designed units

This instructional approach involves students employing a framework provided by the teacher to develop their own units. Students then pitch their units to the class and everyone votes on the topics that the whole class will learn about. This framework allows students to inquire about areas of interest and gain

conceptual understanding of the key concepts, the global context, the statement of inquiry, and factual, conceptual or debatable inquiry questions associated with that topic. It also requires students to decide on the best way to test mastery of the concept and create a summative assessment. The role of the teacher in this approach is crucial in terms of ensuring that the topic of focus is not only of interest to the students but aligned to valued knowledge and learning outcomes. The teacher may also need to explicitly teach students how to design an assessment tool that effectively evaluates their mastery of the topic. This approach promotes agency by requiring students to identify a valued learning goal and then determine how best to attain it, but should be used to complement rather than replace teacher-designed units.

Measuring agency

Periodically evaluating students' social emotional learning serves the dual purpose of informing the teacher of their students' progress and wellbeing and prompting students to practise self-awareness. While formal school-wide social emotional assessments are valuable for collecting comprehensive data, these measures are time-consuming and cannot practically be implemented more than once or twice each year. For these formal assessments, one reliable measure with strong evidence of validity is the Panorama Social-Emotional Learning Survey. However, on a fortnightly or monthly basis, teachers can informally gauge student agency by asking the following questions:

- When you are working independently, how often do you stay focused? (Almost never/Sometimes/Fairly often/Almost always)

- How sure are you that you can complete all the work that is assigned in your classes? (Not at all sure/Quite Sure/Sure/Very sure)

- When complicated ideas are presented in class, how confident are you that you can understand them? (Not at all confident/Quite confident/Confident/Very confident)

- How sure are you that you can do the hardest work that is assigned in your classes? (Not at all sure/Quite Sure/Sure/Very sure)

- When you get stuck while learning something new, how likely are you to try a different strategy? (Not at all likely/Quite likely/Likely/Very likely)

- Before you start on a challenging project, how often do you think about the best way to approach the project? (Almost never/Sometimes/Fairly often/Almost always)

- How much effort do you put into your homework for class? (Very little effort/Some effort/Quite a bit of effort/A lot of effort)

- When your teacher is speaking, how much effort do you put into trying to pay attention? (Very little effort/Some effort/Quite a bit of effort/A lot of effort)

- How often do you seek to challenge yourself in your learning? (Almost never/Sometimes/Fairly often/Almost always)

- How often do you make connections between your learning and the things that are important to you in your life? (Almost never/Sometimes/Fairly often/Almost always)

- How often do you seek help and feedback so that you can improve your work and reach your goals? (Almost never/Sometimes/Fairly often/Almost always)

- How confident are you that you can achieve the goals that you set for yourself at school? (Not at all confident/Quite confident/Confident/Very confident)

• How confident do you feel to evaluate your progress towards achieving your goals at school and work out what else you need to learn or master? (Not at all confident/Quite confident/Confident/Very confident)

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Endnotes

[1] Klemenčič, 2015.

[2] Klemenčič, 2015.

[3] Bandura, 1989.

[4] Taylor et. al, 2018.

[5] Komarraju & Nadler, 2013.

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