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"The Truth Shall Make You Free"
- Living and Learning

Introduction

Public education stands accused of not having kept pace with our changing times and with the explosion of knowledge about what it is to be human. Some say this is because people want it to be better, but they don't want it to be different. Although there is some truth to this, it does not tell the full story. There are and have been unending efforts by enlightened leaders in education to move away from the authoritarian and competitive practices of what is referred to as the industrial model of education. One notable example is *Living and Learning*. It was commissioned by the Government of Ontario, Canada to report on the aims and objectives of education in the province. The depth of thought is evident in the titles of its first two sections. They read, "The Truth Shall Make You Free" and "The Search for Truth in a Democratic Society." Multiple efforts were made to act on its recommendations, but in the end, as with so many other change efforts, the industrial model remains dominant.

Many good ideas have been discredited by poor implementations and this is the case in education perhaps as much as anywhere. When considering the following it is good to consider that the need for something different is not only for the wellbeing of students. Teacher wellbeing flows from flourishing students. Also, when this question, "Does a sense of wellbeing contribute to peace?" is entered in a Google search the AI summary it generates reads as follows:

Yes, a sense of wellbeing significantly contributes to peace, both on an individual and global level. Wellbeing encompasses mental, emotional, and physical health, and when individuals experience a sense of inner peace and contentment, it positively impacts their relationships, communities, and ultimately, the broader world.²

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¹ Hall, E. M. and Dennis, L. A. (1968). *Living and Learning*. Ontario Department of Education. The full report is available at https://www.connexions.org/CxLibrary/Docs/CX5636-HallDennis.htm

² Retrieved August 9, 2025.

It follows that wellbeing is impacting how the world is responding to the challenges of the polycrisis, which includes respect for the inherent rights of nature. The cultivation of wellbeing can therefore be seen as the primary purpose of public education. Described below is a workable way to begin the transformation of education to serve this purpose. It provides a window into how change efforts need to be rooted in an understanding of human nature and what it takes to overcome established mindsets. The scope of the change advocated requires a process not an event. It is not something that can be done by decree. It's evolutionary, not revolutionary in nature, and best accomplished by invitation.

The article centers on education at the secondary level in conventional schools, but the ideas are easily adapted to other age groups and learning environments. The vision is rooted in two key elements of mental health: social justice and self-determination.³ They alone speak to the kinds of relationships young people need to experience in their learning environments if they are to thrive. By reading the following with relationships in mind, the applicability of the ideas to all age groups and settings becomes evident. It compares to reading the United Nations *Universal Declaration of Human Rights* and *The Convention on the Rights of the Child* from the perspective of relationships.

A major concern is the current drift towards school choice. Choice is essential to the change process, but it needs to be choice within community schools. Wellbeing is not maximized by choices that work against community building. Visions are emerging of local learning ecosystems⁴ that establish neighbourhoods as places to belong and to learn, and to serve as launchpads for people to adventure into the bigger world and return to enrich those around them. It's about neighbours pulling together as opposed to competing to get their children into what are perceived to be the best options.

Conditions are now ripe for the transformation of public education, but they are also ripe for its demise. Which path gets travelled remains to be seen. It is primarily the teaching profession that will make the choice, but students, parents, businesses and foundations can all provide the leadership necessary to get promising ideas thoroughly and scientifically investigated.

The Pathway to Wellbeing

In the early 1990s, a rare set of circumstances led to an unusual pilot program being conducted by two teachers in Ottawa, Canada. It operated like a one-room schoolhouse inside an average size suburban secondary school. A mix of twenty-five mainstream students from grades ten to twelve spent their entire days together for a full semester. A single classroom was their home base. It turns out upon broad reflection that this simple pilot program points the way to how public education can be transformed to serve today's needs.

³ The Ottawa branch of the Canadian Mental Health Association lists social justice and self-determination among it top core values: https://ottawa.cmha.ca/about-cmha/vision-mission-and-core-values/. Retrieved August 11, 2025.

⁴ Visions of local learning ecosystems are found in the work of Yaacov Hecht and Karema Akilah. Yaacov is a cofounder of Education Cities and pursues how a city can become one big school. Karema has initiated an unschooling high school that is taking place in the whole city of Atlanta.

At the time, and little has changed since, employers were saying that graduates of secondary schools lacked competence in the 4Cs - critical thinking, creativity, collaboration and communication. These are attributes among what are referred to as soft skills or 21st Century skills needed to succeed today, and they do not only improve one's employability. They are skills needed for successful living. The pilot program gave students an opportunity to develop these skills and it opened a window into a common sense approach providing all students with the opportunity to reap the potential benefits.

To be approved, the program had to meet all the requirements of the Ontario Ministry of Education, the school board and the teachers' union. The students had to adhere to all the school rules, the student code of conduct, and they had to work towards achieving credits in four ministry courses. The courses were limited to the subject areas of math, English, art and computers in order to match the qualifications of the teachers. The difference was that the students had control over *how* they learned. There were no bells and students got to decide how to use their time. This transfer of responsibility for learning from the teachers to the students was regarded as essential for the optimum development of soft skills. The school rules and the mandated curriculum served as the scaffolding Daniel Pink speaks of in his book *Drive* about the age of autonomy. He says people will suffer if you take them from controlled environments and plunk them into autonomous ones.⁵ The limited freedom of the program preserved enough familiarity that the students did not suffer.

The elimination of the bells and age-mixing were significant features of the program. Larry Rosenstock, a co-founder of the High Tech High network of charter schools in the San Diego area of California, is credited with saying, "the traditional school schedule, regimented into fixed chunks of time, is the single greatest impediment to educational innovation." Daniel Greenberg is a co-founder of the Sudbury Valley School in Framingham, Massachusetts. It is described as non-coercive and has spawned an international network of Sudbury Schools as well as inspired numerous other schools referred to as self-directed and democratic. With reference to the success of Sudbury Valley he said age-mixing is its secret weapon.

In order to maintain the required twenty-five to one student/teacher ratio, one of the teachers was assigned to the program in the morning, the other in the afternoon and they worked in the conventional program the other part of the day. While this created some lack of continuity and belonging for the teachers, it provided the advantages of team teaching and the students benefitted from having close contact with more than one adult. Concern has been raised that self-directed learning programs will reduce the need for teachers, but the study of intergenerational learning is revealing that students need to be spending time with more good adult role models rather than fewer. The teacher role changes to that of co-learner, coach, guide on the side, nurturer and facilitator, but the need for teachers remains.

⁵ Pink, D. (2009). *Drive*. Riverhead Books. p. 107.

⁶ Abeles, V. (2015). *Beyond Measure*. Simon and Shuster. p. 56.

⁷ The network is called Sudbury International and has over thirty schools listed on its website: https://www.sudbury-international.org

⁸ Greenberg, D. (1987). Free At Last. Sudbury Valley School Press. p. 75.

The program was called CHIP. The name is not an acronym. Students could choose to enrol and a three or four letter code was needed for the course selection sheets they fill out annually to indicate the courses they want to take the following year. The word CHIP was arrived at with reference to the computer chip to suggest education for the digital age. It was derived from the first letters of terms describing features of the program. "C" is for the development of communication skills; "H" for hands-on learning; "I" for the integration of subjects, and "P" for practicing real-life problem solving. There were only two criteria to be accepted into the program. The students had to be coming to school to learn and committed to cultivating a community of learners with everyone in the program being a learner and a teacher. To keep expectations realistic, students were told that the program was experimental and that they along with the teachers would be pioneers exploring new territory.

The resulting enrolment was a good cross-section of the grades ten to twelve school population. A couple of the students had been on the verge of dropping out of school and they saw CHIP as a possible lifeline. Others were high-achievers who were feeling held back by classroom routines, and others could be described as adventurers interested in discovering uncharted territory. Class management was based on democratic principles; everyone had a say in decisions that affected them.

Circumstances changed and the program ran for only the first semester of two consecutive school years, but world circumstances have been dramatically changing ever since making today more ripe than ever for pilot programs like CHIP. In the early 1990s, the World Wide Web was only just getting started, social media was unimaginable, cell phones were far from ubiquitous, and now AI is creating visions of dismantled public education with students having their own personal AI instructors tailoring learning individually for whatever it is deemed they should learn or want to learn. Fears surrounding the polycrisis have resulted in World Systems Solutions⁹ envisioning an AI platform designed to unite people globally in confronting the threats and education is a big part of what it has in mind. Knowledge about the ingredients for human flourish have grown substantially. Brain research around pruning with "use it or lose it" findings suggest that maybe frontal lobes develop late because young people are given too little opportunity to exercise executive functioning. The mental health of students has become a major concern with social justice and self-determination now identified as key to having a sense of wellbeing, and frustration with conventional schooling continues to grow. A significant indicator of changed circumstances is the 2021 UNESCO report titled *Reimagining Our Futures Together*: A new social contract for education, 10 which calls for a fundamental rethinking of education systems worldwide. At the core of the debate are questions about the purpose of education. Is it to promote the democratic way of life? Does it need to put more emphasis on cultivating wellbeing and less on training for jobs? What do teachers have to offer that AI robotic instructors cannot? How does the idea of working to get ahead equate to striving to be one's best self? What is the role of education in restoring the health of the planet? Programs like CHIP can help to answer these questions and lead the way to education designed to deliver on what is most important.

⁹ World Systems Solutions is promoting conscious collaboration as essential to addressing the polycrisis. See: https://wssnow.org/wp-content/uploads/2024/11/Conscious-Collaboration-4.pdf

¹⁰ UNESCO. (2021). Reimagining our futures together: a new social contract for education. https://unesdoc.unesco.org/ark:/48223/pf0000379707

Don't Wait to Get Started

In a short video titled *Launching Innovation in Schools 2018*¹¹ created for an MIT Teaching Systems Lab program, Peter Senge and Justin Reich discuss how to create systems change in organizations and they advise getting started right away. "If you wait until you have all the answers," they say, "you will have waited too long." School improvement needs to be approached with a scientific mindset, the kind that developed the Kitty Hawk into supersonic transcontinental travel. It starts with a promising idea and it gets refined as the problems arise. In *Another Way Is Possible: Becoming a Democratic Teacher in a State School*, ¹² Derry Hannam, known for decades in international education circles, describes how this was the approach he took with eleven year-olds who were feeling down and defeated after failing a high stakes test that largely determined their futures. He picked them back up by giving them more control over their learning. His chapter six gives an idea of how the advice to not wait to get started looks in practice. He titled the chapter, "Creating a Democratic Class and Curriculum – Making It Up As We Went Along." Thomas Kuhn who coined the term "paradigm shift" adds perspective to this approach. He said that new paradigms come with their own sets of problems. "Normal science" is the name he gave to all of the activity directed at solving the problems of a paradigm.

This advice is not to suggest that people jump into school improvement without serious forethought. Major considerations to contemplate in advance are the potential risk to students who enrol in pilot programs and the general level of disruption a program might create for families, schools, and the entire school community. With all that remained the same as usual, the CHIP Program did much to minimize both the risk and the disruption. It also addressed another major barrier to change. It kept the amount of change small. The greater the change, the harder it is to get buy-in, and the greater will be the resistance it encounters.

In addition to the scaffolding already mentioned, the school-within-a-school nature of CHIP limited the amount of change. Students only had to walk into a different classroom in their community school to experience a different approach to learning. They did not have to switch to some outside school. Family routines, neighbourhood friendships and extra-curricular activities all remained the same, and of particular note, the need for parental involvement was reduced to almost nothing. Students alone could arrange to participate in the program. All that their parents had to do was sign a form giving their permission for their child to enrol. This produced an equalizing affect where students were not disadvantaged if their parents did not speak the language of the school or did not have the capacity to pursue different options for their children.

CHIP also had the advantage that students enrolled for only one semester and then returned to the conventional program. They did not make a long term commitment that they could come to regret and that could be hard and maybe embarrassing to undo. Concerns were expressed that

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¹¹ Senge, P. and Reich, J. (2018). *Launching Innovation in Schools*. MIT Teaching Systems Lab. https://www.youtube.com/watch?v=OEl4S4iJu0g&list=PL69YeOR1vok-6MV70FMT1G8cINfhaaWMM&index=23&t=12s

¹² Hannam, D. (2021). *Another Way Is Possible: Becoming a Democratic Teacher in a State School*. FHREE ¹³ Thomas Kuhn's landmark book *The Structure of Scientific Revolutions* (1962) is referred to by people pursuing both social and scientific paradigm shifts. If what he says about competing paradigms is to be applied, promising emerging and dominant paradigms that appear to have outlived their usefulness will be put on equal footings. This requires creating extensive opportunities for the disciples of an emerging paradigm to pursue their normal science.

students might have difficulty re-adjusting to the conventional program after experiencing greater freedom, but there were no signs that this happened. The opposite seemed to be the case. The students appeared to be more accepting of the demands placed on them and better able to complete their coursework. They also seemed more inclined to regard teachers as allies and to be more understanding of the pressures they were under. This was also observed at Suvemäe. It is a school in Estonia described as democratic that operates as a full-fledged school within a conventional school. Should they wish, students can opt back into the conventional program. In the documentary film *Suvemäe – Pioneer of Possibility*, ¹⁴ the principal says the returning students value more the learning and the teachers' work (in the conventional program). If studies confirm this to be the case, a semester of CHIP could become recommended for all students.

Schools With Competing Philosophies Under the Same Roof

Running schools with competing philosophies under the same roof can be problematic. William Glasser in *The Quality School* warns that each may try to sabotage the other. "But if we want quality secondary schools," he says, "I do not believe we have any viable option other than to try to create an on-site model." The experience with CHIP revealed that sabotage is easily averted with proper leadership. The principal sets the tone by requiring that students be given unbiased information about both programs and left to make their own decisions about which will serve them best. Teachers are not to coerce the students one way or the other.

There may also be tangible problems that arise with school improvement initiatives. One that had to be addressed with CHIP resulted from the program receiving approval on the basis that it required no new funding. This meant that there would have to be a reallocation of existing resources. The main one required was the equivalent of a fulltime teacher for CHIP. On the surface this does not look like much of a problem, but the program may never have gotten off the ground had it not been for the principal's expert handling of the situation. To free up a teacher to run a program like CHIP, elective courses may have to be cancelled and/or the class sizes of mandatory courses increased. Both of these are undesirable for teachers working in conventional programs. Michael Fullan, former dean of the Ontario Institute for Studies in Education and prolific author on the topics of deep learning and how to bring about educational change says, "Those (principals) who do become involved (in school improvement) have a strong influence on how well the change progresses; those who don't show an interest have an equally powerful influence on how poorly it goes." ¹⁶ It is not enough for principals to be *not against* a program; they have got to be for it. The principal who got CHIP underway demonstrated to his staff that he was for it in how he addressed the resources problem. From the position that educators have to be exploring new ways to better serve all students, he collaborated with his department heads to determine the most acceptable way to free up the teacher time needed for CHIP. By including them he created a willingness among the staff in general to give the program a try.

¹⁴ Schmallenbach, M. (2023). *Suvemäe – Pioneer of Possibility*. QUEST. https://www.youtube.com/watch?v=WYjkIIMmhcs

¹⁵ Glasser, W. (1990). The Quality School. HarperCollins. p. 285.

¹⁶ Fullan, M. (1982). *The Meaning of Educational Change*. Ontario Institute for Studies in Education. p. 135.

People today wishing to conduct school improvement projects have the advantage of James Mannion's work. In his book *Making Change Stick*, ¹⁷ he presents the idea of slice teams which aim to achieve support for change from an entire school community. Representatives of the various stakeholders are involved to help ensure that all perspectives are taken into account and people feel invested. ¹⁸ Although the principal responsible for getting CHIP up and running did not have the benefit of James's work, he knew to include people. Once he had worked out with the department heads the details of how CHIP would be implemented, parents were invited to an evening information meeting to learn about the program and to have their concerns addressed.

A shuffling of principals in the school district resulted in CHIP losing its champion principal before the program ran. The new principal was not against the program, but he was not for it and consequently the staff became less for it. The result was that it ran only twice, the first semester of two consecutive school years. Thomas Kuhn observed that paradigms compete and the dominant ones do what they can to keep contenders at bay. This, as with the sabotaging Glasser warns can happen, is not necessarily a conscious act. Many small things work against changes that challenge the norms. It is easier to manage a school based on a single philosophy and the propensity is to stick to the familiar. When a program like CHIP is thrown into the mix the work of keeping everyone committed to school improvement cannot be neglected. If a slice team had been created and maintained with CHIP, the program may have withstood the change of leadership. A few years after CHIP was cancelled, while chatting with the principal who got the program started, one of the initiating teachers said to him, "If you had remained the principal, I think the program would still be running." To this he responded, "I think so too." A promising idea depends upon good implementation and slice teams could prove to be one major ingredient that has been lacking in making substantial school improvements stick. They can help to ensure any change of personnel, whether it be administrators or teachers, does not jeopardize a promising program.

The Importance of a Place to Belong

CHIP had another champion, one of the two vice principals of the school. She provided all of the administrative leadership needed for the program to run the second year. Of particular note, she arranged for CHIP to have a classroom of its own. It was located at the end of a main hallway where the noise from it would be least disturbing for other classes. It was one of nicest rooms in the school, a good size, top floor corner room, bright with windows on two sides overlooking the school track and sports field. Just outside the classroom door were double doors opening into a stairwell to the outside, at the top of which was a large landing.

During the first year, the CHIP students spent their mornings in one room and their afternoons in another. This was done to provide them with access to computers throughout the day. The morning room was dual purpose. It had over twenty standard computers spread around three sides of the room. The rest of the space was packed with desks in rows facing front with a

¹⁷ Mannion, J. (2025). *Making Change Stick: A practical guide to implementing school improvement.* Hachette Learning.

¹⁸ The James Mannion podcast, "You can't afford not to!" Headteacher Kulvarn Atwal on the power of slice teams, gives a good idea of how slice teams work: https://makingchangestick.substack.com/p/you-cant-afford-not-to-headteacher

teacher's desk squeezed between them and a wall of blackboards. There was hardly room to move around making it unconducive to fostering a community of learners. The afternoons were spent in a modern multimedia lab that was needed during the mornings for the conventional program. The difficulty of creating a sense of community within those rooms was learned in the first round of CHIP. It was not enough to have the same students together all day. They needed a place to call home. In another show of support, the vice principal arranged for five of the school computers with programming and multimedia software installed to be allocated to the program. As happened with the original principal, the vice principal was transferred to another school before the program ran the second time. Her replacement was not *for* the program, which left it lacking the much needed support of an administrator.

A few days before the second year began, the CHIP teachers went to the school to set up the room for the students. They found a typically furnished high school classroom with fifteen two by five foot tables and two chairs on one side of each facing the teacher desk at the front. On a side wall were a couple of long low books shelves butted against each other. Otherwise the room was stark. As they surveyed the room one teacher said to the other, "What are we going to do with this?" There was a long pause, and then the answer, "I don't think we should do anything. I think we should let the students decide what to do with it." It was the perfect response and led to the teachers scouring the school for any unclaimed furnishings the students might want to use and took them to the CHIP room. They found more shelves, cubicle wall dividers, an end table, coffee table, a few individual desks and a lamp. The teachers also brought in the relevant ministry course syllabuses, textbooks and other course resources such as teacher made course timelines and past exams.

When the students arrived they entered what felt like a disorganized, cluttered storage room. Accustomed to classrooms nicely organized for them in advance by their teachers, they were puzzled. "The first challenge you need to face together is how to organize the room to best suit what you will be doing here," the morning teacher told them. "Think about it for a couple of days before making final decisions."

About half of the students had been in the program the first year and were given first preference to enrol again. More would have returned, but in order to graduate they needed credits in subjects other than those offered in CHIP. Throughout the second semester the previous year, and all through the summer, the returning students had time to reflect on their first round experience and they arrived back full speed ahead. They no longer had to make things up as they went along and they served as role models and helpers for the new students, finding their resources, getting together with those who would be working on the same courses and planning first tasks. This is how that first morning unfolded.

The afternoon was a different story. The students couldn't wait to make the room their own and by the end of that first day they had it organized in a way that by the end of the semester no one could think of how it could have been done better. Using the cubicle dividers and long low shelves stacked one on the other they partially partitioned off the four corners of the room into working areas, one for each of the subject areas they would be studying. An airy feeling was preserved with a large enough center area left open for full class meetings. In one of the corners the five computers were placed on tables with chairs around three sides. In another the individual

desks were set up in front of a blackboard for math tutoring. Four tables were butted together in another corner well-lit with natural light coming through the windows. They created a large rectangular surface for students to work on art projects. The fourth corner was called the lounge. It was where students could sit and read and have discussions arising from their English courses. In it they placed a large screen TV arranged for by the vice principal, the lamp, coffee table, and end table. Space was left for a couch they were going to acquire from somewhere. In short order, they had created their clubhouse. The only place many high schools students have to call their own is a tiny hallway locker that some decorate to feel better. The CHIP room became a place of belonging.

The Value of Talk

One day towards the end of the second year of the program a teacher in the conventional program walked by the open door of the CHIP room and mockingly said to one of the teachers standing nearby, "Every time I look in here all I see is students talking." It's the kind of comment one might expect in a school where no administrator is *for* the program. She only saw what looked to her to be chaos. By contrast, on an earlier day, the two teachers running the program were standing together in about the same spot looking in on the class and one said to the other, "Have you noticed how they (the students) step forward the more we step back?" These teachers were not seeing chaos. They were seeing engaged learning taking place in a variety of ways.

Peter Gray is considered by many to be the guru of self-directed education. He stresses the importance of play in his book Free to Learn¹⁹ and argues that if young people are provided appropriate environments they will learn of their own volition all that they need to know to create for themselves as good a life as their circumstances allow. He is talking about the physical play of young children, but all of the talk of older children needs to be seen the same way. They are figuring out their world and developing the skills to cope with it. The teenage years are when people become more self-aware and discover their identities. This takes a lot of talk which progresses towards the goal of "Know thyself" while it builds communication and inter-personal skills. Talk when people feel trusted is the stuff of friendship. It results in caring, respect for others and an appreciation for diversity, and it contributes to an overall sense of wellbeing. Stifling it is not unlike preventing young children from playing. A Vietnamese boy who shall be referred to here as Huy exemplifies the importance of talk.

Huy enrolled in CHIP the second year as a grade ten student. The previous year one of the CHIP teachers taught him in a science class. He was miserable at school. As much as possible he disassociated himself from other students. He wore a scowl on his face and would cringe at the attention brought to him if the teacher tried to include him. Part of his problem was that he was fairly new to Canada and his English was not good. Within the first days of CHIP he became friends with a grade ten Portuguese boy who spoke good English. They spent their days together jabbering about whatever and it was not long before Huy glowed. His English improved by the day and he became a valued member of the learning community.

One day in early November, Huy went to one of the teachers and asked if he could plan a Christmas party for the class. The teacher said he liked the idea, but that he couldn't make the decision. Huy would have to talk to the other students to see what they thought. Within twenty

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¹⁹ Gray, P. (2013). Free to Learn. Basic Books.

minutes he had talked to all the students and went back to the teacher saying, "They all like the idea." It led to a cultural event, dinner at a downtown Vietnamese restaurant. The students met at the school and took public transit into town, all except for Huy who said he would meet them at the restaurant. When they arrived they discovered why he had not travelled with them. He was the maître d' who graciously met them. Beaming and confident, he led them to a back room for private gatherings. He then described non-alcoholic drinks the restaurant had specially prepared for them. In a very short time in CHIP, Huy had become a social co-ordinator and a wonderful ambassador for Vietnamese people.

Two grade twelve boys provided another example of the wellbeing that can result when students are free to talk. They joined CHIP the second year and about six weeks in they went to one of the teachers with a confession. They said they had been deceptive when they enrolled in the program. They would be coming to school to learn, but they weren't going to help build a community of learners. They wanted to spend all their time, just the two of them, learning about computers and "wanted nothing to do with the little grade ten kids." They summed up their confession saying, "We don't even notice the age differences anymore." They were feeling that they had become better people. It's quite the message. It's about age discrimination, but it extends to other forms of discrimination. To appreciate each other, students need the opportunity to really get to know one another, and it can't be fabricated.

The Importance of Trust

The freedom to talk does make for a noisy classroom, but the students were not confined to the room. They could go to work in the library whenever they wanted. The stairwell landing outside the classroom offered a quiet spot to read. The art room was free part of the day and students could go there to work on their art projects, and if they wished, they could go outside to the sports field. The common school practice of no students left unsupervised was relaxed. Instead of the message being "We don't trust you," it was "We trust you," and the students lived up to the belief that when people feel trusted, they are trustworthy. There were no repercussions from the teachers not having eyes on the students at all times, but even if something had gone wrong, it would have been treated as a learning experience rather than as a punishable offense.

The students in CHIP were older teens. Outside school this age group roams all over town unsupervised. Many have driver's licenses and positions of responsibility babysitting and holding down part time jobs. There was a grade twelve student in the school at the time who was not in CHIP. One of the teachers had him in a math class he taught in the conventional program. The student was notorious for misbehaviour and labelled a "trouble maker." One day the teacher went into a McDonald's and there behind the counter taking orders was this terrible student acting like the perfect employee. Back at school the teacher asked him, "How come you behave so well at work and so badly at school?" Without hesitating the student said, "Because at work I'm treated with respect, but here I'm treated like a baby." The call for a new social contract for education is creating visions of local learning ecosystems and education cities that take advantage of all of the learning resources found in communities. These visions do not have students supervised at all times. Today in Ottawa there are three high schools in the vicinity of the one where CHIP ran. Rowdy students released at lunch time flood out into the surrounding community. Stealing from local businesses and creating havoc that leaves others feeling unsafe, recently reached a point that a major retailer was considering closing their store during the

school lunch period. These rowdies fuel the idea that young people are not to be trusted, but in their defense there are those who say that we get what we create.

Rethinking Assessment and Evaluation

For assessment and evaluation, the CHIP students were required to take the same final exams as students in the conventional program and the value of the program would be judged based on grades. If students' grades dropped significantly, the program would be deemed unsuccessful. Math was a particular concern because of the importance placed on it by college and university admissions policies. A fear was that if students got behind, they may never catch up. The CHIP students were not going to be force fed math daily and prepared for the final exam with weekly tests. They were given a math textbook and told to use it to develop their analytical reading skills. "If you develop the skill to learn math by reading the textbook, you will be empowered to teach yourself anything," the students were told. If they found that they could not grasp an explanation in the book, an option was to go to the teacher for a lesson in analytical reading. The lesson would be about developing the mental agility to view things from as many angles as possible. Students may experience a block not because of reading skills, but because they lack some prerequisite knowledge and this approach allows a teacher to diagnose the problem. Students running into difficulty could also get help from older students who had already completed the course. Working to understand concepts versus memorizing procedures was encouraged. In conventional classes understanding is impeded by concepts being broken into bits and presented lesson by lesson. In CHIP the students could spend a whole day covering with continuity the concepts presented in an entire chapter. It turned out that their math grades were good enough, but what they learned about learning math was not assessed.

Albert Einstein is quoted as saying, "Not everything that counts can be counted, and not everything that can be counted counts." Bullying did not exist in CHIP, truancy was not a problem, and acting out was unnecessary. CHIP students stealing and creating havoc in the community is hard to imagine. While their engagement in learning and aura of wellbeing appeared to be well up, none of these things were counted. A family that had been stationed overseas for a number of years had returned to Canada a couple of years before CHIP. The daughter enrolled in the program and in a statement of support for CHIP her mother wrote, "It was the first time since returning to Canada that she (her daughter) has been excited about going to school and enthusiastic about doing her assignments." When the mother handed her statement to one of the teachers she said, "I don't need grades to tell me that my daughter is learning. I can see her learning."

The importance of rethinking assessment and evaluation is further highlighted by the Poplar Grove story told by Malcolm Gladwell in Revenge of the Tipping Point. 20 Poplar Grove is a fictitious name given to a real community described as having top achieving students and athletes. Achievement in academics and sports was expected, but then the community suffered an epidemic of student suicides. The pressures of achieving high grades and accolades are known to diminish young people's mental health and the CHIP program offers opportunities to study how we can better count what counts.

Scalability

²⁰ Gladwell, M. (2024). Revenge of the Tipping Point. Little, Brown and Company.

CHIP can be seen as an early prototype of education for the digital age and as with any prototype its scalability is a critical factor. In this CHIP scores high. The program can be extended to run year round and expanded to two classrooms, then three and so on to meet demand. As more teachers are added, more subject areas could also be included. It is easy to imagine how it could become a Suvemäe.

There are people who think that school authorities do not want fundamental change, but much suggests otherwise. No better evidence can be found than *Living and Learning*, also referred to as *The Hall-Dennis Report* named after its two principal authors. It begins with sections titled "The Truth Shall Make You Free" and "The Search for Truth in a Democratic Society." It was commissioned by the Canadian Province of Ontario and "called for broad reforms to Ontario education to empower teachers and the larger community and to put students' needs and dignity at the centre of education." The report struck a nerve and received praise from well beyond the borders of Ontario. A prominent British educator actually moved to Ontario thinking it was the hotspot for transforming education and he wanted to be part of it. There were multiple efforts to implement recommendations of the report, but they were so poorly handled that within a few years teachers were scurrying back to their old ways. The report was published in 1968 and the lesson still to be learned is that the implementation of ideas is as important as the ideas themselves.

Staffing, as already indicated, is critical when scaling up pilot programs. Teachers need to be prepared for their new roles and here again the CHIP program has strength. "Out of sight, out of mind," is a refrain of bike racers like those in the Tour de France. If a breakaway group can get far enough ahead to be out of sight of the pack, the pack is less likely to chase it down. Operating as a school within a school CHIP was not out of sight. It created much discussion in the whole school community. Students and teachers in both programs mingled in the hallways and staffroom. Some teachers in the conventional program dropped in on CHIP from time to time to see what was happening. Some stayed to talk with students. The book What's Worth Fighting For? Working Together For Your School²² was published at the time of CHIP and about twenty staff members purchased it and met a couple of times after school to discuss it. This all supports William Glasser's view that on-site models of quality schools are our only viable option. This is how awareness can be built and the professional development required for change happens without coercion. This is how teachers can discover if they would be suitable to work in the program should they have that opportunity. This is how, by being with the CHIP students they can get a feel for what it is like to be with students as equals and to self-assess how free they are of adultism. This is how they can determine if they have enough of the entrepreneurial spirit to pursue a promising idea and the pioneering mindset to take the risks that come with being in uncharted territory. Not all teachers will be ready to implement change at the same time and those not ready who are forced into it are more likely than not to make a botch of it.

CHIP is relatively easy to implement. Apart from the resources problems to be solved it has little direct impact on the school as a whole. Although this impact is small, CHIP has the power to prepare a school community for a change of greater magnitude, such as The 20% Project for

²¹ Hall-Dennis Report. (2025, July). In Wikipedia. https://en.wikipedia.org/wiki/Hall-Dennis Report

²² Fullan, M. and Hargreaves, A. (1991). What's Worth Fighting For? Working Together For Your School.

Schools.²³ It is promoted by Derry Hannam and stems from the Google founders giving its employees a day a week to pursue their own projects of interest. By implementing CHIP as a prerequisite to The 20% Project, the culture of the school can be favourably altered and suitable start-up teachers identified.

Success and failure hang by a thread with school improvement. Having students rotate to classrooms designed for The 20% Project, as opposed to the teachers going to the classrooms the students normally occupy could make the difference. Having students participate a day a week as opposed to an hour a day could also be a determinant. The questions are, would students be more likely to get into flow with the full day, or would an hour a day help to keep the work on the front burner throughout the week.

A slice team could be created for the implementation of CHIP and remain in place to support next steps in the continuing task of transforming a school. It could help to ensure that change is managed as a process, not an event, with an open invitation for people to accept as they feel ready, not by decree, ready or not. Change in education is often driven by political rather than scientific agendas causing studies to be cut short as a result of power struggles. The valuable work of people like those who produced Living and Learning is discredited by poor implementations and can be set back for years by creating a "been there, done that" attitude. The importance of avoiding the termination of change initiatives for the wrong reasons cannot be overstated. Slice teams could be instrumental in preventing this from happening.

Although the scalability of CHIP sounds simple it is full of problems. Every time it is scaled up the problems associated with the reallocation of resources need to be solved. Scaling it up results in scaling the conventional program down. It can be done more easily in large schools because the greater quantity of resources provides more options, but large or small, both could at some point face a crunch. Conventional programs require a minimum number of students to operate. Six hundred is a number given as necessary to deliver the barebones curriculum of the Ontario Ministry of Education using conventional methods. School closures are a result of enrollments dropping below that number. This number is based on students needing thirty course credits to graduate.

This problem is looming even if schools remain unchanged. Enrollments drop when people leave to pursue other options, but this exodus adds more to consider when imagining a new social contract for education. Will it feed a me-first mentality with neighbours competing to get their children into what are perceived to be the best options? Will anonymity pervade neighbourhoods as children head off to spend their days outside their communities? Will the gap between the haves and the have-nots widen, and will it add to environmental problems and road congestion with fewer children being able to walk to their community schools? These questions may not need answers if programs like CHIP reveal that community schools have the capacity to transform themselves.

Glasser's view that on-site models are the only viable option challenges the idea of school choice where the choices are not operating under the same roof. The choice of physically distinct schools is far from real choice. It disrupts families and friendships and tends to favour the more

 $^{^{23}}$ Hannam, D. (2023). The 20% Project for Schools – A Modest Proposal. Progressive Education.

privileged students. It also often comes down to choosing a school perceived to be *better* in terms of higher achieving students and athletes, but not fundamentally *different*. Real choice is the choice of schools within schools, and can be compared to choosing a car when dealerships are next door to each other. The choices are equally visible and accessible.

Bearing in mind the advice of Peter Senge and Justin Reich, "Don't wait until you have all the answers," one can sees how answers to important questions materialize as things unfold. From CHIP, Suvemäe and The 20% Project for Schools, a solution to the problem of resource reallocation begins to emerge. Instead of thinking of two schools under the same roof, it helps to think in terms of one transitional hybrid school. It shifts the focus from competition to collaboration with the whole staff engaged in the process.

CHIP demonstrated that students could be required to fulfil the requirements of mandated courses and still benefit from having more control over their learning. The 20% project could work similarly. Students could be required to obtain a course credit during their 20% time. As the implementation matures, the project could be extended to two days a week, then three and four and finally five. The evolutionary nature of the change would give students and staff time to adjust and to figure out how to make the best of both worlds. For example, even in self-directed learning environments there is a place for conventional teachers. Students have the option of enrolling in a teacher led course.

This vision does not challenge the practice of mandated courses, but it opens up new opportunities. As with other jurisdictions, the Ontario Ministry of Education has many elective courses that students often cannot take. A school can only offer a limited number of these courses and then only conduct them if enough students opt for them. It is common for students to choose in February a course that interests them only to learn in September that it was cancelled and they are then required to take a course in which they have no interest. As teachers become skilled at facilitating learning as opposed to delivering content, programs like CHIP and The 20% Project could permit students to undertake any ministry course.

Self-directed learners pursuing ministry courses have to read course syllabuses and plan how to implement them. They therefore gain experience in how a learning challenge is structured, the starting points and the progressions. It positions students to create their own courses. *Unleashed to Learn: Empowering Students to Learn at Full Capacity*²⁴ gives an idea of how this would look. Author Linda Aronson describes how she led a capstone course that began with her asking her students, "What do *you want* to learn?" It raises the prospect of students acquiring credits by creating their own courses to learn about what is of real interest to them. In time the number of course credits a student could acquire in this way could become unlimited. It is often said that mandated curriculum is outdated. In our fast changing world, even technology courses may not have been updated for over ten years. Student designed courses would keep learning relevant and the diversity of topics students pursue would help to bring the real world to the attention of others.

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²⁴ Aronson, L. (2013). *Unleashed to Learn*. Infinity Publishing.

The fact that today's schools have been designed for the industrial model of education also comes into play with the scalability of CHIP. The question arose as to how the school building could be modified if the program were to double in size. Specifically, could the sense of community be preserved with two separate classrooms? The question came up because the school population was growing and a major renovation and addition to the school were in the works. Teachers were asked for their improvement ideas and one submission pertained to accommodating twice as many students in CHIP. Adjacent to the CHIP room was another classroom and beyond it an office space. The idea was to make one large area by removing the walls separating them. Four small workrooms, two at each end were recommended to provide for small group meetings and quiet spaces. Folding doors to divide the large area in two were included to add flexibility.

Teachers do not need to wait to get started. No permission from some higher authority is necessary to pursue becoming a more democratic teacher and building awareness with receptive colleagues about what it means. One small example to spark imaginations is how a math teacher might begin. At some point during a semester she could share with a class how math was handled in CHIP and ask her students if they would like to practice their analytical reading skills to learn the material in the next chapter of their textbook. The "Life After Teaching - Exit the Classroom and Thrive" Facebook group for UK teachers has over one hundred and seventy-five thousand members. It gives measure to the discontent of teachers, but many of those leaving conventional schools are the very people needed to bring about change from within. Working to become a more democratic teacher in a conventional could make the job more rewarding and lead to collaborating with like-minded teachers to get something like a CHIP program underway in their school. Becoming part of a solution, no matter how small the step, can alleviate dissatisfaction.

Anyone Can Initiate School Improvement

The transformation of education is a full community proposition. It does not have to be principals and teachers who initiate change. Sam Levin was a student when he got a program similar to CHIP operating in his school. He was doing fine, but had become concerned with how disengaged and unhappy his childhood friends had become in school. He proposed to the principal a school-within-a-school led by the students themselves. She was *for* the idea and it resulted in the Independent Project, ²⁶ a one semester program where students were in control of their learning. Programs with these origins are commonly viewed as last resorts for students who have disengaged, but CHIP helps to dispel this misconception. It is a mainstream program providing a window into what all students need if they are to flourish.

Parents too can be leaders. The actions of a group in Ottawa led to the creation of the JK-6 Lady Evelyn Alternative School based on self-directed, individualized programming. Parental demand resulted in the board creating several more alternative schools in other communities including a middle school for students who wish to continue that approach to learning.

²⁵ Life After Teaching - Exit the Classroom and Thrive. Home [Facebook page]. Retrieved July 19, 2025, from https://www.facebook.com/groups/LifeAfterTeachingExitTheClassroomAndThrive/

²⁶ Abeles, V. (2015). Beyond Measure. Simon and Shuster. pp. 173-74.

Businesses and foundations can also initiate programs like CHIP by identifying suitable schools and providing start-up grants to minimize resistance resulting from the problems of reallocating existing resources. The limits to what the broader community can do to help transform education are determined by our imaginations. The roles that human rights and environmental associations can play have yet to be explored despite how the education of the young so much determines the future. Which path public education goes down appears as uncertain as what will happen to our democracies. One thing appears clear however. If complacency is allowed to rule the day, the outcomes are likely to be undesirable. With inaction we default into the future at our peril.