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Student Leadership 4.0

Süleyman Davut Göker

Abstract

Our world has been introduced with strong changes leading to transformation from agricultural society to industrial society innovating more advancement in IT and innovation called as the Economy 4.0 era. These changes have also introduced new challenges for teachers and learners in educational settings. This shift gives students new tasks to take greater ownership of their own learning within the change processes of their learning communities and schools and, in the long run, to initiate more actively in the democratic processes and systems of their civic society. This type of ownership requires students to be reflective and autonomous. In other words, reflection gives students a chance to self-evaluate their learning practices making them rethink on their actual learning practices. Providing an overview of the existing evidence and theoretical approaches in relation to student forms of leadership and including an evidence review of enablers of student leadership and barriers to student leadership, this paper highlights the road map for institutions of education and policymakers to adopt and adapt to this change. As the need for innovative teaching technologies and better learning opportunities is transforming student demands, thus bringing in changes to the idea of learning itself. It also includes a brief description of how reflection in Education 4.0 should be framed to support learning management, which must respond to the changes in social and economy environment to cater the human capital need. Finally, it concludes with how learning communities according to Education 4.0 are promoted providing readers with a broad overview of student leadership presenting some practices of student voice, participation, and leadership implemented by schools.

Keywords: student leadership, education 4.0, reflection, student voice and participation

1. Introduction

The educational settings have changed drastically starting with Education 1.0 in ancient and Middle ages, which was limited to few privileged and religious people in church or mosque. And it was person to person and limited to debate on religion and social aspects focusing on personalized education of a small population, and using informal and traditional educational methods, which later turned into schools. This type of education became popular through the introduction of informal education in countries like Israel, Greece, China, and India targeting elite people with boys only. Education for girls became prominent together with the type of formal education led by the priests developed with more awareness on education in the Middle Ages together with the ascendance of religious beliefs in India and Western Europe as well as the dominance of scientific research in Italy.

The invention of the printing press and knowledge dissemination changed the concept of education focusing on providing people with some basic skills and learning skills after the Industrial Revolution and during the Renaissance age. This caused more enrollments in school introducing social developments as education became the main responsibility of the states. Teaching process developed, and higher education concept focused formally on both academics and research developed in Education 2.0 with the establishment of universities and progress in printing. During this era, few leading universities like Columbia, Harvard, and Yale were established in America and scholars of this new era provided practical learning with students to teach how to deal with their economic, social, and political affairs more effectively than focusing on religion and its aspects of Latin and Greek classics.

Establishment of some big universities like Harvard, Princeton, and Yale and transition from manuscript to printing as a scientific revolution opened a new era, in which technology has affected almost every single thing in daily life today in the new millennium. Moreover, the rise of Internet together with information technology has made substantial changes in the delivery mode introducing a platform of technology for learning and Education 3.0 was no exception. The shift from Education 2.0–3.0 took a great time providing major changes and a great increase in global demand for education. In other words, being a facilitator became the teacher role rather than an instructor to a facilitator, and the technology introduced different programs of distance and online. At the beginning of this era, massive public investments were created; but now private investment and donations have been given priority in funding. On the other hand, the traditional classroom will be equipped with the new teaching tools and technologies aiming to help learners learn virtually and present targeted information to them in an effective way.

Global connectivity, smart machines, and new media have introduced a new phase which has massively extended access to education and made changes in the ways students develop the skills required for the future. Furthermore, a “100-year life” concept will be essential, and learning will be given more time in this period because people will want to have more careers, which requires fundamental reeducating. This reeducating process will certainly require the acquisition of new knowledge and different skills to keep pace.

The ecosystem in Education 4.0 will put learning and learner at the center, and different forms of learning such as peer learning and reflective learning will be of paramount importance and that will make teacher facilitators to organize different learning contexts. This type of shared learning and learner-centeredness will definitely demand different tasks and responsibilities for students and teachers to manage more competitive and innovative contexts introduced by the learner-based innovations. However, the new Education 4.0 should be redefined and it is new challenge. There will be more innovative, intelligent, and creative learners, and they should be identified. What does this new challenge mean for the learner then? Learners, within this context, should search for the learning outcomes regarding the learning management by the teacher. This is what we call reflection and reflective process bringing the teacher in the mirror and making him or her reflective for leadership positions required by the globalized knowledge society in the future.

2. Changes in education ecosystem

Putting the learners at the center of the ecosystem, Education 4.0 authorizes them to build individual roads to achieve the targets. Whatever presented in Education 4.0 contexts has developed certain technological innovations as well as economic and social ones having a great impact on development of

educational systems. That is to say, educational systems and social systems change simultaneously, and this phase impacts environment and social paradigms, which will naturally transform the ways students are motivated. Because these students have different career expectations, and they need to understand education ecosystems better. This comprehensive understanding includes acquisition of different skills and human capital forming the essence of the education ecosystems.

A shift from a formal educational system to a learning system based on person-to-person today seems to have provided a wide variety of opportunities of learning accompanied by the increased use of technology.

Fisk [1] has outlined nine trends standing out among the general changes and innovations introduced in learning:

- a. **Personalized learning:** Using study tools suitable to learner capabilities above average learners will be challenged with more difficult tasks, whereas learners experiencing problems on a topic will be given more opportunities to practice more until they acquire it. That will create more positive learning experiences diminishing the number of learners, who lose confidence about their academic abilities.
- b. **Diverse time and place:** Providing learners with more opportunities to facilitate remote, self-paced learning at different times in different places, learning environments will be various, and classes will be flipped meaning that the practical part of the lesson is delivered face to face and interactively, but the theoretical part is given outside the classroom.
- c. **Project based:** Focusing on learning how to apply their skills in project-based learning and working in different careers, learners will be familiar of this type of learning in high schools.
- d. **Field experience:** Learners will be provided opportunities to get real-life skills representative to their jobs, and curricula will be adapted in ways that will create mentoring projects, internships, and collaboration projects.
- e. **Free choice:** Learners will have the chance to change the process of their own learnings with the tools required for them.
- f. **Evaluation will be different:** New evaluation methods will be introduced, and learners will be evaluated during the learning process and working on projects.
- g. **Interpretation of data:** Learners will be able to interpret data to predict and reason future trends.
- h. **Importance of mentoring and peer-learning:** Much more independence will be incorporated into their learning process, and peer learning will lead to student success in 20 years.
- i. **Student ownership:** All curricula will be formed based on student involvement considering all-embracing study programs (2017, p. 4).

As can be seen from the trends standing out among the general changes and innovations introduced in learning, they are provocative and actually far-reaching challenges for learners. That is why learners need new educational resources and

tools to be able to develop required knowledge and skills to show their real performance and adapt to new requirements in structuring their learning paths.

3. The concept of student leadership

Today, a digital native being at ease with the computing devices and mobile and looking for information on the Internet is called a learner today. They differ from each other when you consider their needs and aspirations. Each learner is often online as are the providers of education and content, platforms of peer learning, and publishers. Learning is not confined to the class any more. As education 4.0 is characterized by personalization of the learning experience, even the universities fail to comprehend in what ways the technological and social differences affect them because they do not own enough digital infrastructure and forays. However, good universities focus on procedures valuing personalization of learning and leave technology-supported and process-driven learning and teaching systems behind. They give priority to flexible paths of learning focusing on the use of technology and imparting life skills through learner-centered methods and procedures.

Education 4.0 proposes complete flexibility for the learner in shaping and structuring their future providing them with freedom of aspiring, approaching, and achieving their own objectives through created opportunities of better learning supported by technology. These opportunities offer a greater deal of flexibility and customization using technology to make personalized learning both dynamic and approachable. Unless otherwise, it would not be easy to apply personalized learning with no educational technology ranging from digital content to adaptive learning software.

The term “student leadership” is interchangeably used with the concepts of student participation, voice, and agency, and there is a tendency to define a spectrum of practices and activities constituting student leadership and voice. For example, Fielding (2001) [2] has framed a typology ranging from young individuals, who serve solely as a data source for school systems and their processes to performing as active researchers driving changes in schools of their own, whereas Holdsworth has offered a spectrum of student participation, voice, and leadership ranging from young individuals “speaking out” to “sharing decision-making (and) implementation of action” ([3], p. 358). On the other hand, Mitra’s pyramid of student voice ranges from merely “being heard” to “building capacity for leadership” ([4], p. 7, **Figure 1**).

It can clearly be seen that the United National Convention on the Rights of the Child states the need for participation and freedom, which calls for signatories to “assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child” [5]. Within this framework, student leadership practices come out of the abovementioned rights-based concept, showing the significance of capacity of young individuals to play a key role in their decision-making process impacting them.

Together with the introduction of Industry 4.0, the job scenario has totally changed leading to the growth of the “nontraditional” student. That is to say, in other words, any student, who is prepared for the university following his or her high school years and enrolled in full-time classes to finish a degree, is not the norm any longer. This attributed role to the learner has been evolving over the years, and it is not easy to put the learner in a defined age bracket today. Any prototype change is not evitable to supply the needs to this changing target segment of a nontraditional student. This paradigm shift requires more customization and flexibility, which makes personalized learning the preferred learning path.

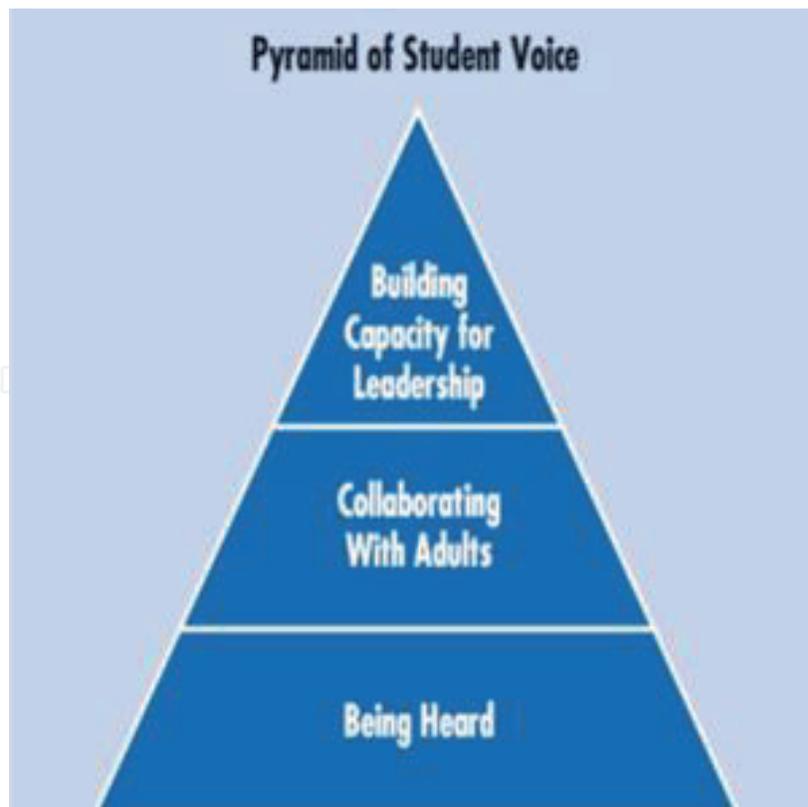


Figure 1.
Pyramid of student voice, from increasing student voice and moving toward youth leadership. Source: Mitra [4].

As shown in ARACY's The Nest action agenda, "evidence suggests young people's participation may have a range of important benefits for the individual, for organizations and for the broader community" [6]. It is clear to see that practices of decision-making and participation could provide the learners with the skills required for participation actively as responsible citizens in the schools systems and educational contexts.

We can say that there is not much consensus on the meaning and concept of student leadership even though there are many policy efforts targeted to reinforce student leadership and how it should be reinforced or even in what ways it must be named [7]. Literature review reveals that many other forms of usages and terms such as "active citizenship," "student participation," "student voice," and "democratic schooling" are mainly used interchangeably with "student leadership." This high-level review has included evaluations, policy, and research documents made public to be able to enlighten the analysis of what is meant by student leadership. "Student voice" and "student agency" were also included as search terms when presented non-ambiguous descriptions given for the concept of student leadership.

4. Forms of student leadership

It is quite possible to see student leadership in different forms ranging from practices in class through empowering students as co-researchers or leadership of community-level activism. This paper, at this stage, drafts and defines the advantages of this type of wider conceptualization of student leadership especially when it comes to the proof suggesting that traditional leadership models could benefit just those who are entirely included rather than trying to construct necessary skills and knowledge for the learners.

As far as the advantages and opportunities are concerned, we will try to summarize these opportunities for student leadership based on the literature review considering this broad conceptualization of student leadership in four settings, which are community, school, classroom, and school system in **Table 1** (student leadership advantages).

In this review paper, we also determine the key factors, which provide or block the student leadership practices in the school environment. Within this framework, we firstly try to define the providers. The most important providers are those who deal with the attitudes and values underpinning cultures of leadership and practices in almost every school environment. These attitudes and values impact the extent to which student leadership is regarded as a priority and the school's capacity to lead to meet the student needs. **Table 2** identifies these key providers below consisting of different beliefs and understandings about school culture and school systems:

We finally try to identify the key factors, which block the student leadership practices in and out of the school environment in this paper. It is quite natural to see blockers as well as providers in a school system. From this stand point, we try to define the blockers. The most important blockers and barriers to leadership practices for students are the non-supportive attitudes and beliefs or more expansive

In the community	
	Ask and empower students to improve and apply community-based projects, specially in partnerships with other agents to foster learning.
	Ask and empower them to participate and communicate with both local governments and the wider communities.
In the school	
	Encourage them to become school ambassadors or representatives beyond the school.
	Encourage them to participate in the departments working in the process of decision-making of the school.
	Help them participate in programs of mentoring or coaching.
	Ask and assist them with developing and implementing projects to change in the organizational culture, practices, and operations of the school.
	Make them active participants in the school leadership appointment panels.
	Engage students in the processes of reform or organizational change.
	Ask and empower them to take active part in research as well as guidance on the organizational culture, practices, and operations of the school.
In the school system	
	Ask and empower them to behave as active people in the process of reform systems.
	Ask and empower them to act as active people in conducting research processes targeted to evaluate school systems.
In the classroom	
	Encourage them to engage in decisions and conversations on classroom rules and classroom management.
	Encourage them to engage with decisions on learning, teaching, and evaluation.
	Allow them to speak out their own expectations and opinions about the critique of the current debate issues.

Table 1.
Student leadership advantages.

Community providers	
	All kinds of possibilities and opportunities enabling leadership practices for students outside the school environments
	Creating different partnerships between schools and other agencies in the community
	Eagerness to lead leadership practices in the school context
Policy and systems-level providers	
	Enabling more research partnerships and supporting knowledge and information exchange
	Prioritizing development of leadership skills in the curricula
	Targeting model practices and desired objectives
	Enabling policy frameworks supporting the practice of student leadership
Pedagogic and curriculum providers	
	Supporting students to self-express and creating opportunities for all of them to have a voice in debate issues
	Incorporating citizenship and civics in the curricula to make students develop competencies and skills for social participation and student leadership
	Creating classroom cultures encouraging participation
	Making students see the difference between doing and knowing and doing: model student voice and student-centered approaches employing democratic processes as well as learner ownership
	Building a link between student participation in school governance and citizenship issues in the curriculum

Table 2.
Student leadership providers.

Practice blockers	
	Lack of support of teachers for the initiatives of student voice
	Problems encountered in implementing “democratic” models in practice
Exclusive leadership model blockers	
	These models could play a role in the exclusion of more marginalized students.
	Only one type of leadership could be represented marginalizing other expressions of leadership.
	This type of leadership could be framed by an adult benefitting just a small proportion of students.
School governance and policy blockers	
	School hierarchy and bureaucracy
	Belief that proposes young people lack decision-making capability
	No consensus about standards, performance, and accountability
	More complex priorities, including a potential for the emphasis to improve skills of students in more holistic way
	Lack of opportunities for the students to participate in school context
	A huge gap between opportunities provided for participation within schools and wider community models of youth engagement

Table 3.
Student leadership blockers.

conceptualizations of student voice. In other words, these blockers also include existing structures and systems inhibiting more comprehensive models of student leadership. It is not easy to find a shared understanding or belief about the definition of ideal models of student leadership. **Table 3** identifies these key blockers below blocking the improvement of skills of leadership and creation of leadership opportunities for students both in and out of the school culture and school systems:

5. Grounds of best practice in student leadership and reflection

Even though there is much literature review on student leadership ([8], p. 39), proof of efficiency of student leadership programs is lacking. It is well-known that it is not much easy to pose individual measurement of every initiative given in the appendices; however, it could be possible to focus on current measurements to see what the best practice about student leadership is like. In a meta-analysis conducted, Mager and Nowak interpret “no systematic reviews of the effects of student participation in school decision-making have been conducted so far” ([8], p. 39). This scholar work included structures and initiatives seen in the former part like school working groups and school councils identifying 52 cases of student participation in the process of making decision in the school context in the international literature.

Results of this study revealed that students included in these groups experienced a variety of individual impacts after taking part in the study, including “improving life skills” (reported in more than half of examined cases); “developing/improving social status” and self-esteem (reported in more than one-third of examined cases); and “developments in academic achievement and learning” (reported in almost one-third of examined cases). Only four cases “showed a positive association between student participation and health or health behaviour” ([8], p. 39). Eleven cases reported some negative effects including “disillusionment, disappointment and frustration” (p. 44) as a result of their participation in school leadership structures including (but not limited to) working groups and school councils.

Likewise, literature review also shows that a student-centered school makes the difference [9] in showing the effectiveness of student leadership. These studies suggest that opportunities provided to input into students’ own learning experience in the school context can result in positive personal impacts [9]. Babcock [10], on the other hand, specified research studies showing that student leadership in the school context could raise student motivation and engagement leading to a better academic performance [4, 11–13]. One more striking result revealed by Fielding [14] shows that these positive impacts could be much stronger for students who have traditionally gone through marginalization in the school context. Some other studies incorporated student councils, for example, as in-school initiatives in their understanding of the positive involvements of student leadership on student outcomes, even though they drew on Fletcher [15] to admit that “there are many form of student leadership like the active engagement of students as planners, researchers, teachers, trainers and advocates” (p. 19). We can conclude that we have been witnessing evidence to suggest that “students need greater agency in schools, leading initiatives, leading research teams and participating on staff panels” ([16], p. 15), whereas there is support for existing student council models in the literature.

This type of student leadership increasing student engagement, motivation, and academic performance is a key factor in what is meant by innovative era in Education 4.0 [17, 18]. This clearly requires the learner to manage his or her own learning. This learning management is considered to assist the learner with developing his or her capacity to apply the new technology, which will help them to

develop according to the changes in society. According to Sinlarat [19], this type of management of learning in Education 4.0 is called as a new learning system, which helps the learner grow with skills and knowledge not only to learn how to read and write but also for their complete life. The learners will need them in their social life. As this type of learning management needs to respond to the changes in social and economy environment to cater the human capital need, we maintain that Education 4.0 is more than just an education. To be able to achieve it, there should be a change in learning management, which requires reflection, which is a great chance for learners to self-evaluate their learning processes. Within this framework, learners are able to grow in a desired way as long as they care about their own learning and leadership developments. Within the context given above, reflection could be seen as a means to change, and there are optional methods to do that [20, 21].

6. Conclusions

Student leadership like other leadership types is complex, and it is not easy to write it in a handbook or prescribe it in the literature on leadership. Within this framework, student leadership fills the gap between theory and practice by providing the students with the ability and capacity to construct their own theories of student leadership practice before, after, and during their actions. Students learn how to catch fishes as it is purely a self-development practice requiring mastery and participation. We believe that this paper could be a good starting point for all stakeholders in educational contexts valuing learner-centeredness to create reflective learning environments where students could manage their own learning. Doing this they would help the realization of the process of Education 4.0, which paves the way for growing reflective student leaders who shape and structure their future. They will be self-confident both in creating and updating their own practice of student leadership. This process will clearly provide them with freedom of aspiring, approaching, and achieving their own objectives through created opportunities of better learning supported by technology.

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