



APPLYING THE KOTTER CHANGE MANAGEMENT MODEL IN HIGH SCHOOL EDUCATION: SOME INITIAL RESULTS IN HANOI, VIETNAM

Dang Viet Ha¹,
Nguyen Chi Thanh²
University of Education,
Vietnam National University,
Hanoi, Vietnam

Abstract:

In today's setting of fundamental and comprehensive innovation in education and training, our country requires a modern education system and an appropriate educational governance model that will provide learning chances for all people. In the near future, we will integrate our country's education with that of other countries in the area and around the world. Kotter's (1996) 8-step change model is one of the most commonly utilized frameworks for leading change. This study examines the features of each step and applies Kotter's change model to high school management. The findings of surveys and interviews with high school administrators in Hanoi have somewhat demonstrated the potential of adopting this approach in the current context.

Keywords: change management; Kotter's change management model; high school administration

1. Introduction

All changes in an organization must begin with the machinery that drives it, namely, management activities. Change management involves numerous organizations and individuals in a complex interaction. Change management has grown over the last few years, with change management models, processes, and plans to help decrease the impact of change on enterprises.

In our current setting, high schools in the country as a whole, and in Hanoi in particular, are under a lot of pressure to change from both inside and outside. Internal factors include the desire for increased student learning, teacher development, and learning experiences. External pressures include enhancing access, competition, and raising student expectations, as well as contributing to economic and social growth. To

¹ Correspondence: email dangvietha1982@vnu.edu, vnthanhnc@vnu.edu.vn

successfully change management, school leaders and administrators must plan, organize, lead, control, and focus on developing the required abilities and qualities.

The article discusses knowledge in the field of change management and introduces Kotter's 8-step change management methodology. The article discusses knowledge in the field of change management and introduces Kotter's 8-step change management methodology. Based on theory, the study examines the features of each stage and applies Kotter's change model phases for handling change in teaching and student education activities in high schools following the new general education program.

2. Literature Review

2.1. Theory of Change and Change Management

Organizational change theories include institutional theory, neo-institutional theory, organizational ecology theory, evolutionary theory, and political theory.

According to Wiggins (2008), issues include inaccurate change maps, complex problems, superficial solutions, misinterpreted opposition, and the misuse of knowledge about the change management process is a pertinent formula in the change management process. Change management is a structured process that manages people and technology to respond to environmental changes, adapt development strategies to external changes, and maintain competition.

Nickolas contends that the role of managing change involves the influence on people, which many managers find difficult. Anyeni, Bcom, and Campus declare that change management entails planning, beginning, implementing, managing, and stabilizing change processes at both the organizational and human levels.

Change is an essential human nature phenomenon, owing to the fact that we live in a time of constant challenges and changes in all aspects of our lives: from one scenario to the next. Change is a process that goes through specific stages as in the management process, always starting from planning, implementation and ending with evaluation.. Change introduces policies and practices that address dynamic cultural factors. Therefore, organizations need to change their processes to become agile, innovate and introduce more sustainable methods and processes. Some change management scholars in education also argue that schools are changing in today's world because the world is changing, and we are confronted with complex, ever-changing problems.

Kotter (1996) examined the techniques of leading change, and Kotter's model gives a framework that leaders can comprehend and consistently follow to achieve effective planned change as intended. Dwyer described how Kotter's change management model aligns with the process used at her university to overcome obstacles to changing the culture of assessment. Additionally, it is to assist students in transitioning from college to career. Hurd found Kotter's change management model of leading change to be effective when applied to a university's internationalization initiative. Haskins further tested the effectiveness of the Kotter change management model by analyzing its sequences. Uys used Kotter's framework to incorporate Charles Sturt University's open-

source learning management system. Carneiro uses it to analyze the effect of strategic change and innovation on staff in higher education. Similarly, Taylor joins other researchers who have tested the effectiveness of this model. Furthermore, is to reform the medical assessment system of the School of Dentistry at the University of Puerto Rico. All of these case studies demonstrate the utility of Kotter's change management methodology in a variety of higher education sectors for direct improvement initiatives.

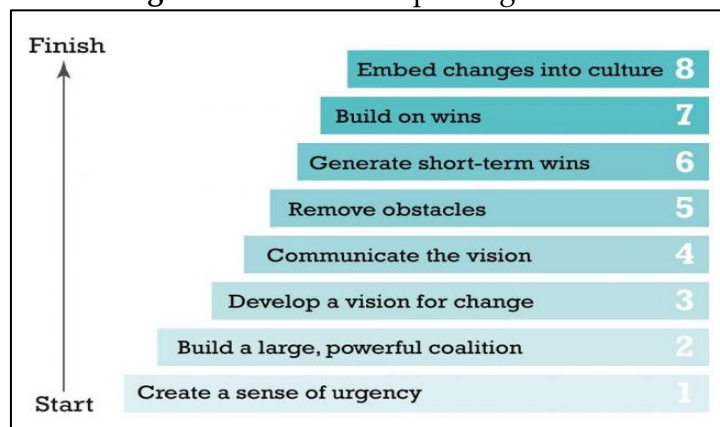
More recently, Al-Thubaiti assessed the level of change leadership in educational management departments in Saudi universities using Kotter's change management model. According to Al-Thubaiti's study, the level of change leadership in the faculties is moderate, and the first step of the Kotter model of change, "*creating a sense of urgent change*," reached a high level, while the subsequent seven phases reached an average level. Baird (2018) examined the impact of Kotter's successful change strategy in implementing the system in an educational setting. The effectiveness of these tactics used by their administrative teams to promote social change was investigated in this study. Based on Kotter's leading change management model, Saifaldin Idris Onia's research used this model as a theoretical framework. Kotter's change management paradigm is divided into three stages: creating an environment for change, involving and supporting the entire organization, and implementing and sustaining change.

Dao Thi Thu Trang and Trinh Thi Thu Hang conducted research at Vietnam Private University on Change Management in Higher Education using Kotter's change management paradigm. The authors' research demonstrates that short-term victories are significant because they strengthen the credibility of the change process, helping to sustain acceleration. This difference could be attributable to the authenticity of short-term wins.

2.2. Kotter's Change Management Model

Kotter's change management model is one of the simplest and most understandable change management models, and a lot of scholars continue to adopt it (Borrego and Henderson 2014; Pollack and Pollack 2015; Wentworth, Behson, and Kelley 2018). Kotter's change model is made up of eight steps (Figure 1 below).

Figure 1: Kotter's 8-step change model



Kotter's framework for change is presented in the table below:

Table 1: Steps in Kotter's Change Management Model

No	Steps in Kotter's change management model	Explanation
1	Recognize the need for change	Big changes necessitate a lot of dedication, and alerting people about the urgent need for change can help them prepare for it. To accept change, organizations require a "mitigate" to eliminate complacency and inertia.
2	Build a working group/experts on change management	If the first phase is effective, people with the necessary knowledge, skills, and authority will be more willing to participate in the transformation process (Kotter & Cohen, 2002). Success hinges on having the appropriate people on your team, especially competent leaders.
3	Define a vision and strategy for change	Create a strategic vision that will direct the change process toward a new shared, known, and desired state. This vision must be accompanied by relevant, feasible, and effective measures to realize it.
4	Communicate the vision for change	Big changes can only be successful when everyone in the organization is pulling in the same direction. The plan and vision for change must be communicated to the stakeholders.
5	Eliminate difficulties and barriers	Before substantial change can take place, potential barriers to change must be recognized and removed. Encourage and help people to make sensible changes.
6	Set short-term change goals	During a transition, appreciating tiny victories along the road can act as an emotional reward, motivating for success.
7	Develop and analyze tactics based on successful outcomes.	When change arrives, members may lose their feeling of urgency, become fatigued, or revert to previous patterns. To avoid these scenarios, short-term successes must be leveraged into broader initiatives, and change must be constantly assessed and modified to ensure that everyone is enthusiastically engaged.
8	Apply and maintain changes	A success can be defined as when change is institutionalized and becomes a habit for people, as well as when knowledge, skills, and attitudes are distributed.

3. Methods

3.1. Sample

The study was conducted at 12 high schools in Hanoi, both urban and suburban. We interviewed 36 administrators and 75 teachers in person and online, using questionnaires, which were anonymised by using the codes Manager and Teacher instead of their true names.

Table 2: Survey participant information

No	Variables	Subject			
		Manager		Teacher	
		Quantity	Percentage (%)	Quantity	Percentage (%)
I	Sex				
1	Male	10	27.8	24	32.0
2	Female	26	72.2	51	68.0
II	Academic level				
1	Bachelor	10	27.8	60	80.0
2	Master	20	55.6	12	16.0
3	Doctor	6	16.7	3	4.0
III	Seniority				
1	Under 5 years	10	27.8	35	46.7
2	From 5 – 10 years	7	19.4	13	17.3
3	From 5 – 10 years	6	16.7	8	10.7
4	Over 15 years	13	36.1	19	25.3
Total		36	100.0	75	100.0

3.2. Research Instrument

This study was designed as a qualitative study, which means it collected, analyzed, and interpreted data. Data will be collected using the qualitative technique through face-to-face semi-structured interviews and online interviews (via questionnaires) with school officials in Hanoi, including principals, vice principals, and some high school teachers. Collect descriptive information about their views, beliefs, and thoughts regarding the variable under investigation.

According to Peter, McGarland, and Kimberly, a measurement tool is useful when it measures what it is designed to measure. To ensure the authenticity of the interview content in this study, we created a questionnaire based on Kotter's 8-step theoretical framework and reproduced Alexander Carter's (2016) research. Within the scope of this study, we used Kotter's 8-step change model, provided in section 2, to find the best leadership strategies that principals might apply while managing change in teaching and educational activities.

Data gathered through interviews and survey questionnaires were assembled and analyzed using mathematical statistics methods (SPSS software version 25.0). The statistical indicators employed in the analysis are descriptive statistics, specifically percentage, mean, and standard deviation. Evaluate the results of each option using a five-point Likert scale to determine the level of practical activity implementation as weak, bad, average, fair, or good for the effectiveness of the change attempt (Carter, 2016).

Analyze the items in the questionnaire to determine which range the survey criteria's average score falls into. The range of discrimination between levels is 0.8 [according to the formula (max-min)/n].

Thus, the conventional average score for the levels is:

- Weak (very unimportant): $1.0 \leq \text{Average score} \leq 1.8$
- Quite weak (not important): $1.81 < \text{Average score} \leq 2.60$

- Average (normal): $2.61 < \text{Average score} \leq 3.40$
- Quite good (important): $3.41 < \text{Average score} \leq 4.20$
- Good (very important): $4.21 < \text{Average score} \leq 5.00$

4. Result

4.1. Cronbach Alpha's Findings

To assess the reliability of this sort of test, which has scores on an interval scale (1-5), we utilize Cronbach's Alpha correlation coefficient model to evaluate the compatibility between elements (items) in the same measurement domain. This methodology assesses measurement reliability by calculating the variance of each item throughout the entire scale and the correlation of each item's score with the score of the remaining items on the scale. The scale's dependability (with a value of 0-1) is regarded as low if the Alpha coefficient is less than 0.40.

The analysis of the reliability of the scale measuring the current state of management of teaching and student education activities at Hanoi City High School using Kotter's change management model approach reveals that this scale is systematic. Cronbach's Alpha dependability is greater than 0.8, and total variable correlation coefficients exceed 0.3. This number leads us to conclude that the scale is dependable (see Table 3).

Table 3: Cronbach Alpha for research problems

Observed variables	Total variable correlation		Alpha, if this variable is eliminated		Cronbach Alpha		Number of observed variables
	Manager	Teacher	Manager	Teacher	Manager	Teacher	
Step 1: Recognize the need for change							
NC1	0.774	0.857		0.819	0.872	0.90	2
NC2	0.774	0.972		0.819			
Step 2: Build a working group/experts on change management							
CG1	0.766	0.937	0.837	0.972	0.882	0.976	3
CG2	0.731	0.943	0.867	0.967			
CG3	0.817	0.963	0.791	0.953			
Step 3: Determine vision and strategy for change							
TN1	0.580	0.912			0.851	0.953	2
TN2	0.629	0.912					
Step 4: Convey the message about the vision of change							
TD1	0.578	0.923			0.730	0.96	2
TD2	0.578	0.923					
Step 5: Eliminate difficulties and barriers in the change process							
KK1	0.782	0.927	0.912	0.927	0.925	0.97	5
KK2	0.812	0.891	0.906	0.891			
KK3	0.774	0.946	0.914	0.946			
KK4	0.856	0.917	0.897	0.917			
KK5	0.794	0.893	0.909	0.893			

Step 6: Set short-term change goals							
MT1	0.745	0.820			0.854	0.9	2
MT2	0.745	0.820					
Step 7: Build and analyze strategies based on achieved results							
KQ1	0.635	0.898	0.897	0.974	0.903	0.976	6
KQ2	0.739	0.923	0.873	0.971			
KQ3	0.826	0.953	0.853	0.968			
KQ4	0.730	0.898	0.875	0.974			
KQ5	0.798	0.914	0.860	0.972			
KQ6	0.755	0.882	0.941	0.969			
Step 8: Apply and maintain those changes into the school management process							
VD1	0.791	0.919	0.839	0.953	0.890	0.965	3
VD2	0.748	0.942	0.881	0.936			
VD3	0.822	0.914	0.813	0.956			
Group the number of observed variables							25

4.2. Results of research on the current status of managing students' teaching and education activities in high schools in Hanoi using Kotter's change management model method

Table 4: The current status of managing students' teaching and education activities in high schools in Hanoi using Kotter's change management model method

No	Observed variables	Manager				Teacher					
		Average	Standard deviation	Total		Level	Average	Standard deviation	Total		
				Average	Standard deviation				Average	Standard deviation	
I	Step 1: Recognize the need for change										
1	Analyzes strengths, weaknesses, opportunities, and challenges in teaching and student education' s activities to determine educational goals.	4.11	1.008	4.24	0.967	5	4.12	0.986	4.15	0.912	5
2	Create a plan to organize teaching and educational activities in accordance with the 2018 General Education	4.36	1.046				4.19	0.926			

Dang Viet Ha, Nguyen Chi Thanh
 APPLYING THE KOTTER CHANGE MANAGEMENT MODEL IN HIGH
 SCHOOL EDUCATION: SOME INITIAL RESULTS IN HANOI, VIETNAM

	Program's requirements.										
II Step 2: Build a working group/experts on change management											
3	Guide teachers to establish professional plans based on the needs of developing student abilities.	4.31	0.822	4.34	0.741	2	4.12	0.929	4.17	0.945	4
4	Assign professional management tasks to specialized teams.	4.36	0.798				4.19	0.982			
5	Guide the activities of professional groups, coordinate closely with educational forces in the process of managing teaching and student education activities.	4.28	0.815				4.21	0.99			
III Step 3: Determine vision and strategy for change											
6	Direct innovation in organizational forms, teaching methods and evaluate students' results according to the 2018 General Education Program	4.33	0.793	4.35	0.725	1	4.01	0.908	4.05	0.914	8
7	Direct the exploitation and use of the application of information technology in the process of teaching innovation and assessment.	4.36	0.762				4.09	0.961			
IV Step 4: Convey the message about the vision of change											
8	Organize meetings and professional activities with	4.19	0.856	4.29	0.721	4	4.27	0.935	4.25	0.913	1

Dang Viet Ha, Nguyen Chi Thanh
 APPLYING THE KOTTER CHANGE MANAGEMENT MODEL IN HIGH
 SCHOOL EDUCATION: SOME INITIAL RESULTS IN HANOI, VIETNAM

	teachers, students and parents to thoroughly grasp educational requirements to develop students' competences.										
9	Direct and orient teachers and related parties to implement the new General Education Program	4.39	0.766				4.24	0.928			
V	Step 5: Eliminate difficulties and barriers in the change process										
10	Assign autonomy and promote the creativity of professional teams and teachers in building and implementing teaching and student education plans	4.39	0.838				4.19	0.896			
11	Listen to the opinions of relevant parties in selecting local educational content and educational activities according to the 2018 General Education Program	4.25	0.841	4.31	0.758	3	4.13	0.977	4.22	0.857	3
12	Implement democracy in assigning and evaluating officials, teachers, and employees performing the tasks of implementing teaching programs and educating students	4.19	0.889				4.27	0.905			

Dang Viet Ha, Nguyen Chi Thanh
 APPLYING THE KOTTER CHANGE MANAGEMENT MODEL IN HIGH
 SCHOOL EDUCATION: SOME INITIAL RESULTS IN HANOI, VIETNAM

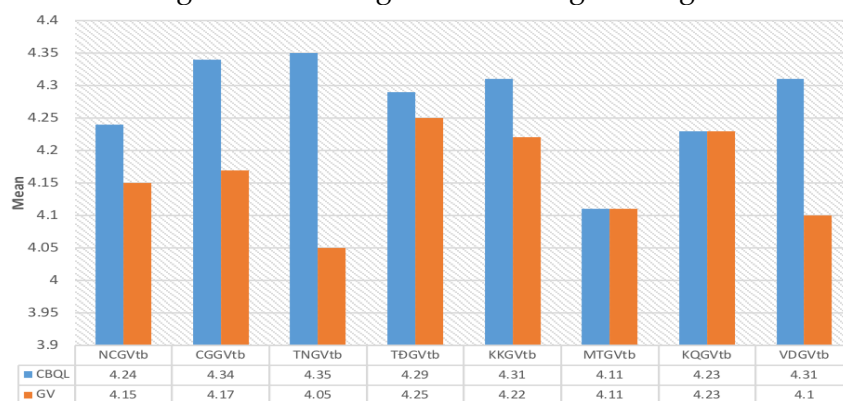
13	Support, encourage and motivate individuals and groups throughout the process of implementing and innovating teaching and student education activities	4.28	0.882				4.24	0.852			
14	Publicize the results of teaching and educational activities and be accountable for all aspects of the activities to relevant parties.	4.42	0.874				4.25	0.902			
VI	Step 6: Set short-term change goals										
15	Identify short-term goals (yearly, quarterly and periodically) in assessing the quality of teaching and student education	4.25	0.874				4.09	0.989			
16	Develop and promulgate evaluation criteria in emulation and reward for individuals and professional groups.	4.19	0.889	4.11	0.917	7	4.13	0.935	4.11	0.917	6
VII	Step 7: Build and analyze strategies based on achieved results										
17	Check, evaluate and adjust teaching plans and educate students at all stages.	4.25	0.967				4.13	0.935			
18	Detect deviations and low results to make	4.11	0.854	4.23	0.850	6	4.16	0.916	4.23	0.850	2

Dang Viet Ha, Nguyen Chi Thanh
 APPLYING THE KOTTER CHANGE MANAGEMENT MODEL IN HIGH
 SCHOOL EDUCATION: SOME INITIAL RESULTS IN HANOI, VIETNAM

	appropriate adjustments										
19	Observe the lesson to understand the teacher's lesson preparation and teaching situation	4.33	0.828				4.27	0.875			
20	Help and guide teachers who have not done well as well as praise and praise teachers who have done well	4.39	0.903				4.32	0.857			
21	Organize professional meetings, short-term and long-term training courses by domestic and foreign experts on knowledge and teaching methods, and application of new technologies in teaching.	4.19	0.98				4.21	0.934			
22	Reward and honor individuals and groups who achieve achievements in innovating teaching activities	4.25	0.874				4.28	0.879			
VIII	Step 8: Apply and maintain those changes into the school management process										
23	Maintain training and fostering to improve capacity and innovate methods and forms of organizing for teachers and staff	4.25	0.806	4.31	0.753	3	4.09	0.841	4.10	0.827	7
24	Organize and deploy the results achieved in the process of	4.31	0.889				4.11	0.863			

	innovating teaching and educational activities on a school-wide scale									
25	Carry out evaluation of new programs and continue to make adjustments	4.36	0.798				4.11	0.863		
GPA		4.27	0.804				4.16	0.892		

Figure 2: The results on the current status of management of teaching and education activities in Hanoi's high schools using Kotter's change management model method



The survey results indicate that administrators rate the substance of managing teaching and student education activities using Kotter's 8-step change management model approach as well executed, with an overall average score (\bar{X}) is 4,27 (In which the content of managing teaching and student education activities is assessed by administrators to have an average value in the range of $4.21 < \text{Average score} \leq 5.00$) and teachers rated the level of implementation as good with an overall average score of 4.16 (in which the content of teaching management and student education was assessed by teachers as having an average value in the range $3.41 < \text{Average score} \leq 4.20$).

Administrators selected Step 3 as the most critical and best implementation level, with a total average score of $\bar{X} = 4.35$, rank 1. According to survey results, school administrators have defined a strategic vision for managing teaching and student education activities that focuses on innovation in organizational forms, teaching techniques, and results evaluation. Student education outcomes based on the 2018 general education program; direct the exploitation and use of traditional methods, as well as the application of information technology, in the teaching of innovation and student assessment. According to Kotter's change management theory, without a clear vision, transformation attempts can soon fail, and incompatible projects can take the

organization off track or to nowhere 0. However, teachers rated the level of performance of administrators in determining vision and strategy for change (step 3) at a good level and ranked lowest among the 8 steps with a total of the average score is $\bar{X} = 4.05$.

Through interviews, high school teachers highlighted that: *"Training in this field is still limited, managing many areas in schools is very difficult"* and proposed: *"Practical and effective management training for managers and teachers."* Create a policy that prioritises investment in digital technology for overall education in all parts of school administration: a digital ecosystem. Teachers, on the other hand, lack a clear understanding of the strategic vision that administrators seek to convey. Some teachers interviewed said: *"The expansion of information technology is so quick that a portion of teachers do not keep up with the rate of growth, a huge number of aged teachers are unwilling and afraid to adapt, so updating knowledge and teaching techniques are still traditional. Labor balance in some subjects exerts strain on the system: subjects lack instructors, subjects have too many, forcing teachers to teach subjects that are not in line with their professional...; facilities/campuses are not really synchronized to fulfill innovative needs."* Teachers do not perceive the relevance of creating a strategic vision for transformation.

Step 6 and step 7 have a similar assessment of change implementation of managers and teachers with an average total score of step 6 of $\bar{X} = 4.11$ and step 7 is $\bar{X} = 4.23$, step 7 is regarded as a good performance, whereas step 6 is rated as good performance, but the average score for each assessment material in the steps varies. This demonstrates that high schools have done well in terms of innovating, developing, and analyzing techniques based on the results obtained by year, quarter, and period in assessing the quality of teaching and education. Step 6: Administrators and teachers consider the content "The school develops and promulgates evaluation criteria in emulation and rewards for individuals and professional groups according to the school year" as good, with an average score is 4.19 and 4.13.

For the content of steps 4 and 5, although there are different evaluation rankings between managers and teachers, the total average score of the evaluations all reaches a good level of performance with the total average score of evaluation is $\bar{X} = 4.29$ (step 4); $\bar{X} = 4.31$ (step 5) and the total average score of teachers' evaluation is $\bar{X} = 4.25$ (step 4); $\bar{X} = 4.22$ (step 5).

For the remaining steps including step 1, there is an assessment of the level of implementation of inconsistent changes between managers and teachers. Managers evaluate steps 1 and 8 as being well performed \bar{X} with a total average score of $\bar{X} = 4.24$ (step 1); $\bar{X} = 4.31$ (step 8). However, teachers rated the level of implementation of changes in steps 1 and 8 at a good level with a total average score of $\bar{X} = 4.15$ (step 1); $\bar{X} = 4.10$ (step 8). The managers' appraisal of the priority and level of adopting changes, as well as applying and maintaining changes in the management of teaching and student education activities, has theoretical and practical implications. According to Kotter, the first stage is critical because starting a change program when there is a low level of urgency and lacks

momentum will result in failure, and the eighth step is the implementation and maintenance of changes. The ensuing modification has been implemented and has become part of the organization's culture. On the other side, change occurs last, not first. To effectively implement steps 1 and 8, high schools must pay close attention to leadership and direction in the implementation process based on equality principles, specifically, clearly guiding teachers to realize that making changes is an urgent issue that contributes to improving the quality of teaching in accordance with the 2018 General Education Program to develop learners' qualities and abilities.

5. Conclusion

The findings of the administrator and teacher survey have revealed that this model may be used to manage high schools effectively. Kotter's top change priorities included building an environment of change in high schools, involving teachers in the change process, and executing and sustaining change. According to research findings, high school administrators have successfully used Kotter's change management theories at various levels of school administration. Managing teaching and student education activities based on the new general education curriculum.

Based on the study's findings, the author advocates creating a clear change vision, which is critical to the success of the change endeavor. High school administrators should reaffirm the vision of change in meetings and conversations with subject teachers, as well as set a good example to ensure long-term transformation. Furthermore, the report suggests empowering teachers in the process of transforming teaching and student education activities; giving instructors autonomy and accountability in making decisions about teaching, measuring learning outcomes, and educating students on a daily basis; encouraging collaboration among teachers and staff to reach progress goals, as well as eliminate hurdles and address difficulties that might lead to helping teachers realize their vision and encourage change.

Other than that, maintaining culture evolves since culture plays a vital part in the operation of every company. Maintaining a shifting culture in high school sets the tone for how we work and interact with one another. As a result, leaders must disseminate the changing culture by developing principles and establishing new norms and rituals that define the culture and support teacher conduct. High school leaders should act as role models in effecting behavior change. Similarly, leaders should continue to promote appropriate behaviors in order to engage and inspire teachers to use change tactics.

Conflict of Interest Statement

We declare no conflicts of interest.

About the Author(s)

Dang Viet Ha is an officer at the University of Education, Hanoi National University, and holds a Master's degree in Educational Management from Hanoi University of

Education. Her research focuses on innovative school governance strategies. She is the author of many articles in this field and actively participates in research projects at the University of Education to improve general education outcomes through progressive pedagogical methods.

Nguyen Chi Thanh is a faculty member at VNU University of Education, specializing in Mathematics. In addition to his work in mathematics, he has a strong interest in educational management and the application of change management models in educational settings. Nguyen Chi Thanh has published several articles in both mathematics education and educational management, reflecting his diverse expertise and commitment to improving educational practices.

References

- AACRAO (2020). "The Ups and Downs of Organizational Change Management: Institutional Readiness, Practice and Individual Experiences." Retrieved from <https://www.aacrao.org/research-publications/aacrao-research/the-ups-and-downs-of-organizational-change-management-institutional-readiness-practice-and-individual-experiences-2020>
- Anyieni, A.G., Bcom, M., & Campus, N. (2013). "Effect of strategic planning on the performance of small and medium enterprises in Kenya: A summary review of the literature." *The International Journal of Professional Management (IJPM)*, 8(6), 1–10. Retrieved from <https://ir-library.ku.ac.ke/bitstream/handle/123456789/18342/Effect%20of%20Strategic%20Planning%20on%20the%20Performance%20of%20Small%20and%20Medium%20Enterprises%20in%20Kenya.pdf?sequence=1&isAllowed=y>
- Al-Thubaiti, K. (2017). "Leading change in departments of educational administration in Saudi universities by using Kotter model of change". *Journal of Education and Practice*, 8(8), 111-120.
- Baird, F. M. (2018). "The effect of John Kotter's theory of change on the implementation of professional learning communities and perceptions of secondary teachers in a public school setting." Retrieved from <https://eric.ed.gov/?id=ED609640>
- Besterfield-Sacre, M., M. F. Cox, M. Borrego, K. Beddoes, and J. Zhu. (2014). "Changing Engineering Education: Views of U.S. Faculty, Chairs, and Deans." *Journal of Engineering Education* 103(2): 193–219. <https://doi.org/10.1002/jee.20043>
- Borrego, M., and C. Henderson. (2014). "Increasing the Use of Evidence-Based Teaching in STEM Higher Education: A Comparison of Eight Change Strategies." *Journal of Engineering Education* 103(2): 220–252. <https://doi.org/10.1002/jee.20040>
- Campbell, R.J. (2008). "Change management in health care." *The Health Care Manager*, 27(1), 23-39.

- Carneiro, R. (2010). "Transforming Universities. Chapter 5. in Ulf-Daniel Ehlers & Dirk Schneckenberg (Eds.) *Changing Cultures in Higher Education: Moving Ahead to Future Learning*". New York, USA: Springer.
- Cohen, D. S. (2005). "The Heart of Change Field Guide: Tools and Tactics for Leading Change in Your Organization". Boston, MA: Harvard Business Press. Retrieved from <https://store.hbr.org/product/the-heart-of-change-field-guide-tools-and-tactics-for-leading-change-in-your-organization/7758>
- Dwyer, P. M. (2005). "Leading Change: Creating a Culture of Assessment." *To Improve the Academy*, 23, 38–46. Retrieved from <https://quod.lib.umich.edu/t/tia/17063888.0023.006/--3-leading-change-creating-a-culture-of-assessment?rgn=main;view=fulltext>
- Flood, A.B., & Fennell, M.L. (1995). "Through the lenses of organizational sociology: The role of organizational theory and research in conceptualizing and examining our health care system". *Journal of Health and Social Behavior, (special issue)*, 154–169. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/7560846/>
- Gilia, F. (2016). "Relationship of teachers readiness for change with their participation in decision making and school culture". *Educational Research and Reviews*, 11(8), 823-833.
- Guzmán, W. Z., Gely, M. I., Crespo, K., Matos, J. R., Sánchez, N., and Guerrero, L. M. (2011). "Transformation of a dental school's clinical assessment system through Kotter's eight-step change process", *Journal of Dental Education*, Vol. 75, No. 4. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/21460269/>
- Heathcote, E. & Taylor, P. (2007). "The potential contribution of change management literature to understand and support student transitions. In *Proceedings Enhancing Higher Education, Theory and Scholarship*", HERDSA 2007 Adelaide, South Australia. Retrieved from <https://core.ac.uk/download/pdf/10879891.pdf>
- Hurd, D. (2007). "Leading transformational change: A study of internationalization at three universities in the United States (Doctoral dissertation)". Available from *ProQuest Dissertations and Theses database*. (UMI No. 3252063).
- Kotter, J. P., and D. S. Cohen. (2002). "The Heart of Change: Real-Life Stories of How People Change Their Organizations." Boston, MA: Harvard Business Press. Retrieved from <https://hbswk.hbs.edu/archive/the-heart-of-change-real-life-stories-of-how-people-change-their-organizations-get-off-the-dime>
- Kotter, J.P. (1996). "Leading change". Boston: Harvard Business School Press. Retrieved from <https://www.hbs.edu/faculty/Pages/item.aspx?num=137>
- Kotter, John P. (2007). "Leading Change"; why transformation fail. [Harvard Business Review]. <https://hbr.org/1995/05/leading-change-why-transformation-efforts-fail-2>
- McGarland R., and Kimberly, K.-L. (2005). "Content Validity. *Encyclopedia of Social Measurement*", 495-498.
- Nickolas, B. (2006). "Essentials of Change." London: Thousands Oak.

- Ramaley, J. A. (2014). "The changing role of higher education: Learning to deal with wicked problems". *Journal of Higher Education Outreach and Engagement*, 18(3). Retrieved from <https://digitalcommons.unomaha.edu/slcehighered/167/>
- Pollack, J., and R. Pollack. (2015). "Using Kotter's Eight Stage Process to Manage an Organisational Change Program: Presentation and Practice." *Systemic Practice and Action Research* 28(1): 51-66. Retrieved from <https://link.springer.com/article/10.1007/s11213-014-9317-0>
- Redding s., (2012). "Change Leadership Innovation in State Education Agencies". *Academic Development Institute*, Lincoln, IL.
- Rozikin, M., Muslim, A., & Pratama, B. I. (2021). "The Determinant Factors of School Organizational Change in Madura, East Java, Indonesia". *International Journal of Evaluation and Research in Education*, 10(1), 308-316. <http://dx.doi.org/10.11591/ijere.v10i1.20532>
- Saifaldin Idris Onia (2022). "Using Kotter's theory to lead change at University of Khartoum: A qualitative study", *Journal of Social Studies (JSS)*, ISSN: 1858-2656 (p); 2721-4036 (e) Vol. 18. No. 2 (2022), pp. 265-278 doi: 10.21831/jss.v18i2.51098.265-278.
- Taylor, J. (2010). "Leading a change initiative to meet accreditation standards for a mental health care organization in eastern North Carolina" (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3415595).
- Peter, P. J. (1981). "Construct Validity: A Review of Basic Issues and Marketing Practices". *Journal of Marketing Research*, Vol. 18, Nr. 2, 133-145. <https://doi.org/10.2307/3150948>
- Trang Dao Thi Thu, Hang Trinh Thi Thu (2022). "Change Management in Higher Education by Kotter's Model: A Case Study in Vietnam Private University", *Journal of International Business and Management* 5(1): 01-12(2022) Print ISSN: 2616-5163, Online ISSN: 2616-4655. <https://doi.org/10.37227/JIBM-2021-12-2097>
- Uys, P. M. (2010). "Implementing an open source learning management system", *Australasian Journal of Educational Technology*, Vol. 26, No. 7, pp. 980-995. <https://doi.org/10.14742/ajet.1029>
- Wentworth, D. K., S. J. Behson, and C. L. Kelley. (2018). "Implementing a New Student Evaluation of Teaching System Using the Kotter Change Model." *Studies in Higher Education*, 1-13. <https://doi.org/10.1080/03075079.2018.1544234>
- Wiggins, L. (2008). "Managing the ups and downs of change communication", *Strategic Communication Management*, 13, 1, pp20-23. <https://www.proquest.com/openview/410f39800780f443abef013cbdc2852e/1?pq-origsite=gscholar&cbl=44514>

Creative Commons licensing terms

Author(s) will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Education Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflicts of interest, copyright violations and inappropriate or inaccurate use of any kind content related or integrated into the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).