Influence Processes and Their Importance
For Leading Significant Changes in an Educational Institution

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A modern education institution in the 21st century must have a comprehensive strategy on how to make significant changes in educational outcomes as well as on processes for managing and leading administrative outcomes. In this article, we would like to share some of our experiences related to the influence processes in the education system, especially how to influence the parameters that contribute to the implementation of innovation, creativity, and entrepreneurship culture in education and in the educational management system (Osiri, McCarty & Jessup, 2013). As an academic teacher-training college on the country periphery, it was clear to us that these influence processes should spread in a circular method. We are talking not only about influencing the academic college staff but also about teacher cadets (the students attending the college); the education system in the region that will eventually influence us; the education of our children, grandchildren, and the children of friends and neighbors in the area where we live, grow and develop.

Introduction

A modern education institution in the 21st century must have a comprehensive strategy on how to make significant changes in educational outcomes as well as on processes for managing and leading administrative outcomes. As an academic college that deals with teacher training on the country periphery, it was clear that influence processes should act in a circle of 360 degrees. We are talking not only about influencing the academic college staff but also teacher cadets (the students attending the college); the education system in the region that will eventually influence us; the education of our children and grandchildren, and the children of friends and neighbors in the region where we live and develop.

Drawing from personal cumulative experience derived from the work in academia (doing research in a leading university in the area of life sciences and setting up an Academic College of Engineering); in governmental ministries (managing the Senior Division for Training and Development of Human Resources); and in international business (holding various positions in an international high-tech company), the head of the teacher-training institution (the author) began looking for strategies to improve regional education levels in preparation for an ever-changing future society. The aforementioned experience led to an actual and deep familiarity with the systems of training and development of human capital in different sectors: academic, public, and private. This familiarity raised two fundamental questions upon assuming the top position at the College of Education:

1. Will the college employees, faculty members, and administrative staff be able to adopt habits and work processes taken from non-educational organizational culture such as international high-tech companies?
2. Will it be possible to train teacher cadets attending college now ways to educate children in preparation for a different and varied future? We (the college leadership) are aware of the fact that teachers trained at the colleges of education today will teach students who as adults will work in various sectors and have different economic needs in 15-20 years or more.

Leading the change

In view of the above-mentioned, it was clear to us that the process for creating meaningful and innovative change of the teacher training must begin with changing our perception of the nature of the teacher's role and the role of the school. In this article, we will show the process steps we have taken in order to bring about a significant change in the management of a teacher training college in the country periphery. These steps were made in order to influence further the image and role of teachers who train future graduates of the education system.

Leading the change toward innovation in teacher training was initiated within a multi-staged process: Stage 1 – a) create a vision and a mission; b) formulate strategy, goals and objectives; and c) write work plans for all the administrative and academic levels of the organization. The process that the college underwent led to a possibility and the opportunity to bring a different approach to the world of education. It promoted changes not only at the college itself but also in the part of the education system on a peripheral area. Such a change should affect in a planned manner the school education system directly and eventually the graduates of the system in the coming years, thus the entire geographical area in the future.

In order to achieve the desired results, we had to start a clear and structured program that would lead to:
- Making genuine internal and cultural change in the college's work, achievements, and results of its initiatives;
- Improving the quality of management as well as the administrative and academic standards of the college;
- Instituting internal processes for innovative and creative thinking that will bring better results;
- Changing the internal image of the college staff;
- Changing the image of the college in the eyes of the interested parties outside of the university—Ministry of Education, Council for Higher Education, district offices, institutions that employ graduates, councils and municipalities in the greater region, potential candidates of the teaching program, etc.;
- Creating team spirit among the employees and the students in the college.

To achieve all of the above, the college administration took several actions (Soken & Barnes, 2014) that would lead the college's management and employees to:
- Develop effective influence behaviors in addition to strategic and tactical influence attitudes;
- Prepare an influence program by setting clear objectives, implementing the program, and tracking the opportunities to influence;
- Design and implement the approach most suitable for the actual cases;
- Solve problems and conflicts;
- Create a more balanced and mutually rewarding relationship;
- Do much more within the organization with less effort;

- Take responsibility for the professional development of employees in ethical and productive manner.

Setting up a Management Infrastructure

Administrators established teams from the institution leadership; this was in addition to the institutions and committees that were required according to the academic regulations. The team members represented the large number of administrative functions and were chosen because they had the desire and motivation to make a difference. Their charge was to lead the institution to a future different from what they had experienced and knew.

1. An expanded management team consisting of the mid-level administrative and academic managers formed and began to meet regularly every two weeks. Most of this follow-up team's responsibility was to track the annual work plan they had formulated, identify successes, as well as detect and solve problems that arose.

2. From the expanded management team, a small management team of senior executives of the organization was established. Its role was to engage in strategic processes and translate them into instructions necessary for the team of middle managers. The small management team met regularly once a week.

The existence of the two management circles defined well the concept of influence circles. The more senior one was responsible for achieving the strategic and cultural goals of the organization. The second, the broader one, was responsible for the implementation of the work plans of the organization and for tracking the success indicators derived from the strategic plan.

3. At the same time, another team was assembled from some of the functionaries described above in addition to individual contributors – leading innovators. This team provided operational solutions to the current contemporary educational issues and problems. The team set its goal to re-examine all aspects of education and instruction in teacher training as well as pedagogy and teaching in schools. Analysis covered areas such as teacher positions, learning environments, pedagogy, contents and technology, school day structure, lesson structure, and so on.

Breakthrough system

In addition to the aforementioned objectives, the main goal was to make the college an institution that was valued from an academic point of view, both by other academic institutions and by its students. In other words, its end users and institutional peers would respect the college as a high quality, advanced place to obtain an academic degree in teaching that was valuable and sought after in the field of education.

The Breakthrough Performance Theory gave basis to this change process (Daniels, 1994) including its beginning three main stages:

1. The implementation of a Breakthrough System based on:
   o Working in accordance with well-defined data-based quality processes;
   o Setting goals and implementation of strategic processes adjusted to measurable objectives;
   o Continuous improvement of human resource capabilities (administrative and academic);

2. Applying the process to change management by:
   o Increasing a sense of awareness and sense of urgency;

- o Increasing the knowledge, skills, and abilities required for the implementation of the change;
- o Implementing change management;
3. Leading the cultural change:
   - o Based on the Red Ocean and Blue Ocean strategies;
- o By recruiting partners who can lead the competition with us;
- o By formulating general goals of the organization that are directed towards new initiatives and innovative products.

The Leading Change Process Model:
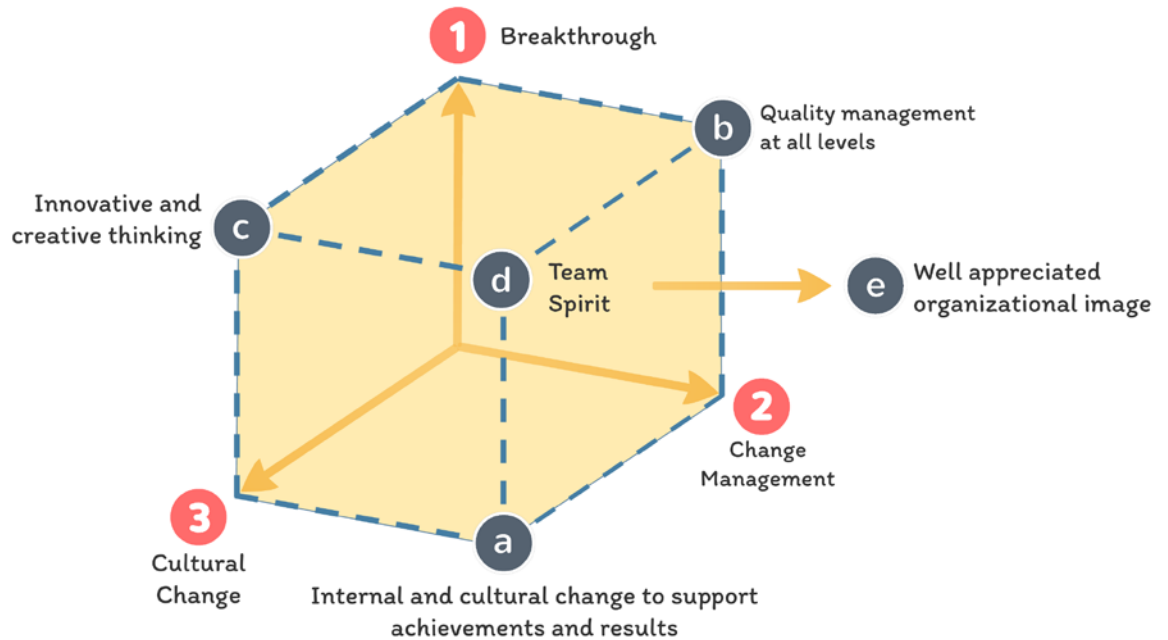
Management teams met for several days of preparation in order to analyze together the scene of the college. The discussions led to the understanding of the environment and the data affecting the existing situation to include uncertainties, complexities, and competition. Once the teams formulated the desired situation and vision, the development of strategy began.

This vision clearly described the desired future. It was the institution's goal to attain that future by molding the generation of responsible leaders in various fields of the future economy.

Vision: Academic College leading breakthrough and molding the future generation.

After this formulation process, a group of about 30 teachers and administrators gathered for a brainstorming evening. They were shown the vision and the implementation strategies of the college brought forward by the management teams. The expected issues the college would face on its way to achieving the desired situation were also described.

Another strategic debate (yet different) was held—not for the creation of a vision or work plans but for initiating a wide-ranging influence that would lead to a change in the teaching and learning ways. The discussion was based on the Red Ocean and Blue Ocean strategies (Kim & Mauborgne, 2015). The fields in which the college would

continue to face competitors were defined. The areas in which the college gained no clear added value due to objective reasons (periphery matters, size, budgets and population) were designated the Red Ocean. The Blue Ocean was the one field in which the college could lead the competition and cause the competitors to try to compete with us. This field usually has brought significant entrepreneurship and innovation as well as showed the way and pace for receiving recognition as the leader in the field.

Results

There was a group of early adopters—a handful of academic and administrative employees who were willing to undertake leading the change. Once the vision and different strategies were clear and well understood, a breakthrough system based on work processes was initiated in various relevant fields by these early adopters.

First, this administrative team began holding weekly meetings to become more professional and efficient. The members also wanted to understand the academic programs and the overall vision of the institution. Goals, objectives, and criteria for improvement, based on departmental work plans, were set. This administrative team became an integral part of the college with a clear understanding of the academic goals and objectives (not a separate unit that provides services to entire college as it used to be in the past).

Processes of continuous feedback were implemented (Islam & Mohd Rasad, 2006) through an annual 360-degree feedback survey to all employees. In the feedback, they evaluated themselves and were evaluated by their colleagues, customers, and managers. The feedback was determined by a general ranking of the employees in accordance with their contributions to the college's success as well as improvements made towards the coming year. These processes contributed to the understanding and continuous improvement of the existing situation based on organizational goals and values determined in advance. In addition, a survey was conducted among the students and the lecturers to examine the level of satisfaction (Elliott & Shin, 2002) with the services received from administrative workers in the various fields relevant to the college life. On the academic level, several parameters were tested. Lecturers were evaluated on the content they taught (syllabus) and the examination grades they gave in accordance with the difficulty levels of the areas studied by students.

In order to apply the desired changes, the college administration assumed a work mode based on developing a sense of urgency among all the academic and administrative employees. The sense of urgency was based on two aspects: the first was related to the college's rating published annually by the Ministry of Education (according to different parameters - quality and number of the students) among all the colleges of education. The other aspect was connected to the matter of the criteria required for the colleges in order to switch to PBC - Planning and Budgeting Committee (colleges that are subject to the Council for Higher Education, but funded by the Ministry of Education). The major sense of urgency for the head of the college was branding the college as having uniqueness or expertise, which would be reflected in teacher training for the education system (Temple, 2006).

The college administration also understood that all the changes that apply to the administrative and academic staff must eventually be expressed primarily in the final product offered by the college – the graduate teacher. This expression would namely be seen in the nature and the role of a college-trained teacher; in the teaching and learning methods that the teacher cadet would take with them to the field of education; and especially in the complex improvements that the new teacher would

bring with them to the school education system.

A number of supporting actions taken by the institution:

- A unit was established to promote the teaching and learning for the training of the lecturers and preparing them for the changes that would be applied later, and which would be brought up by the various think tanks;
- Workshops for promotion of teaching, preparing examinations and personal and professional development were held at the college;
- The technological infrastructures were changed and improved significantly in order to support students and faculty members and advance teaching methods;
- The lecturers faced clear expectations for teaching with the Moodle system, smart boards, and computers;
- An immediate and high quality support system was implemented in order to allow the lecturers to work and teach using advanced methods (new pedagogies, interdisciplinary contents, advanced technologies etc.) without fear of problems and malfunctions.

For potential students who intend to study at the college:

- An advanced system for marketing, sales, and consultancy specializing in various training areas was established;
- New study programs toward under-graduate and graduate degrees were developed and written. They were submitted to the Council for Higher Education and approved by it;
- A long-term programs development plan, which intended to double the number of the students attending the college, was developed.

Once all the infrastructures required for breakthrough processes were in place, we started the process of leading changes.

As stated above, once the college understood that it should operate and create competition in innovative fields and lead the competitive field (according to the theory of Blue Ocean Strategy), an innovative team comprising faculty members and relevant administrative staff was established. The team convened for regular weekly meetings in order to come up with ideas for change and for creating plans for leading significant changes in the field of teacher cadet training along with the area of teaching and learning in the field of education itself. Educators outside the college joined the change leading team in order to strengthen the team and to bring in ideas beyond the college. These outside perspectives and concepts promoted innovative processes that led to breakthroughs.

From this team a number of significant products were developed (not only within the college but also in the school education system):

- An innovative pedagogical educational model based on the TPCK model (Mishra & Koehler, 2006) was developed. This model was based on 21st century skills and abilities required from an education system graduate;
- For the implementation of this pedagogical model, innovative learning environments were developed (Amar & Bar David, 2016). In these environments, the pedagogy was implemented with adjustments to the working environments which the graduates would meet in the real employment world;
- A model for technological support based on the principles of the IOT (Internet of Things) was conceived and its development began (Amar & Bar David, 2018).
- The higher order thinking language based on computational thinking and design thinking were introduced into the work and teaching plans (Amar & Bar David, 2018).

This model is unique to the college and it was developed by the college think tanks

and implemented by selected members of the faculty.

During the change process two important strategic partnerships were formed:

- The first partnership was formed with the local Intel Development Center. Executives from Intel along with the faculty members from the college led two important processes: 1) Developing the course "Teach to the Future" (Weissblueth, Nissim & Amar, 2014) and conducting it for all the first-year students. For this course, the lecturers were trained by the Apple-Seeds company, which was selected by Intel for that purpose. This course has been conducted for several years, until this year. 2) Offering a workshop for leadership for change. Initially college lecturers were trained for it and then select students attended annual workshops under the guidance of the Intel Corporation people.

- The second partnership was established with Steelcase Education (based in Grand Rapids, Michigan, USA), a company that specializes in providing solutions for advanced work environments and innovative learning environments (Nissim, Weissblueth, Scott-Webber & Amar, 2016). With help from Steelcase Education an innovative learning space was developed. It included four classrooms designed according to pedagogical approach recently developed in the college and was intended to bring futuristic and advanced learning into teacher cadet training. The classroom space was called a dynamic learning space. It allowed transition from classroom to classroom according to the stage of the pedagogical model the student was in and the nature of the skills that the instructors would like to impart to their students.

At this point, the college's management realized that it had the most important insights required for becoming a leading college in both pedagogic/technological innovation and creativity. The administrative staff understood the expectations of them – adjusting their work to the future development needs of the college and adjusting the provided services to the needs of the college. It was clear that in order to maintain the Blue Ocean strategy and promote innovative and advanced ideas, the college management should lead the faculty members in the required cultural change.

In order to implement such cultural change, also among the managerial staff and academic teaching staff, open workspaces were built. The locations for the academic staff (in the lecturers' room) and for the administrative staff supporting the senior academic staff (open space where academic and administrative staff were in direct and prolonged contact with the students) were modified. Desktop computers were replaced by laptops, which allowed working anytime and anywhere. Meetings and workshops were held in order to implement the long-awaited cultural change (Kezar, 2011). A unit for taking care and supporting in the areas related to teaching and learning was established. This unit's role was not only to train lecturers in new pedagogies, but also to accompany and support the lecturers directly with anything they might need in the classrooms in regards to technology, pedagogy and use of the innovative learning spaces.

There was no doubt that a new corporate culture was indeed prevalent in the college. It was noticeable in the new atmosphere, mostly among the lecturers and their students, but also from the impressions of many visitors who came to the college for observation.

Changes that were introduced on the corporate culture level led to the desired organizational climate. Later on, many other changes were implemented. An additional innovative learning space (350 square meters) was established. This area used to

contain five traditional classrooms and now over 120 students can learn in it with more than one lecturer. This was the interdisciplinary and collaborative learning the college's innovative pedagogy and advanced technological support sought. Learning in this space allowed rapid transition from personalized learning with individual learning results to group learning with collaborative learning results. At each corner of the space, there could be different furniture configuration adapted to a certain stage in the studied pedagogic process and to the 21st century skills that we wanted to impart to our students (Amar & Bar David, 2016).

Another space created was a biophilic space. It was a space where one could learn and have experiences simultaneously in all fields of scientific, biological and ecological studies (Amar & Bar David, 2016). The learning was based on research and problem solving; it was practical and involved data gathering and processing, arriving at required conclusions and planning advanced processes according to the gathered data. Such learning promoted higher-order thinking and high-level collaboration between the students of the same year studying together and the students of different year. In the future, also students or researchers from outside the college could collaborate.

An example of this biophilic space was a new-growth orchard with various fruits that was planted on campus in order to provide the students with the opportunity to understand and follow the growth of seasonal fruits. For future teachers this was an interesting and intriguing area that must be a part of the repertoire that a kindergarten or school teachers should know how to present to their students. In addition, other spaces were built in a manner similar to the ancient Greece arena, where one can hold a substantive debate between the part of the

students and the opinion leaders (Ferris & Tagg, 1996). It was also possible to hold acting workshops and role-play or to place games for the brain on the classroom floor and initiate processes from the students' chairs on a virtual board game.

Recently, we decided to bring the course "Teach to the Future" to a higher level so we adapted it to the more advanced course "Computational Thinking". Computational thinking was a process for problem solving which had a number of features and characteristics. Computational thinking employed approaches from computer science and supported the process of problem solving and research in many fields of knowledge. Computational thinking brought together the skills, approaches, and methods for formulating solutions to various problems in such a way that a computer could run these solutions or help us solve them. This course gave the future teachers basic coding and programming skills that would allow them to access technology with less fear and use this instrument optimally in lesson preparation. It would also bring the world of digital gaming into their teaching program and speak the language of those young students whom they teach.

From a traditional college for education we became an innovative college that thought, acted and functioned differently. The college management and its employees set their priority on training the future teachers. Their organizational culture became a culture of advanced thinking. The development of innovative tools and technologies provided the college graduates with the skills of the 21st century appropriate for the global world that awaited graduates. This academic and administrative culture allowed an atmosphere of devotion, innovation, renewal, and influence for a change at the college and in the entire educational system.

TPCK based 21st. century skills and competencies (Amar & Bar David, 2016)

Skills	Learning environment	Content	Pedagogy	Technology	Expected outcome
Dealing with uncertainty	Dynamic Space	Interdisciplinary	PBL Problem definition, Knowledge acquisition Debate	No	Students who can cope with problems and new situations
Innovation out of existing solutions	Continuous space Biophilic Space	Disciplinary	Problem solving Planning Debate Approval	Yes	Students are able to propose innovative solutions to problems
Inquisitive and critical thinking	Dynamic space Continuous space	Disciplinary / Interdisciplinary	Confirmation Debate Planning	No	Students are challenging status quo and ask important questions
Data collection and processing	Continuous space Biophilic space	Multidisciplinary	Knowledge acquisition Planning Evaluation	Yes	Students are working with relevant data and using it properly
Renewing creativity		Interdisciplinary	Problem definition Problem Solving Planning Implementation	Yes	Students knows about existing solutions and are capable to renew and improve them.
Learning anytime and anywhere	Home Any space	Disciplinary	Knowledge acquisition Confirmation Approval Evaluation	Yes	Students are using applications for learning and sharing from everywhere at anytime
Troubleshooting	Continuous space	Disciplinary / Interdisciplinary / Multidisciplinary	Problem definition Problem Solving Planning Debate	Not necessarily	Students are able to cope with complex problem and provide creative solutions
Collaboration at all levels	Dynamic space Continuous space Biophilic space	Interdisciplinary	Confirmation Debate Problem Solving Planning	Yes	Students are capable to communicate and work collaboratively in pairs, trio, and larger teams
Teamwork	Continuous space	Interdisciplinary	Debate Planning	Yes	Collaborative work in small and larger teams providing shared outcomes and solutions
Understanding technology and using it as an advantage	Continuous space Biophilic space Dynamic space Home	Multidisciplinary / Interdisciplinary	Knowledge acquisition Confirmation Planning Approval Implementation & Evaluation	Yes	Using different technologies, devices, software and applications
Learning from	Continuous	Disciplinary	Problem definition	No	Students acquire

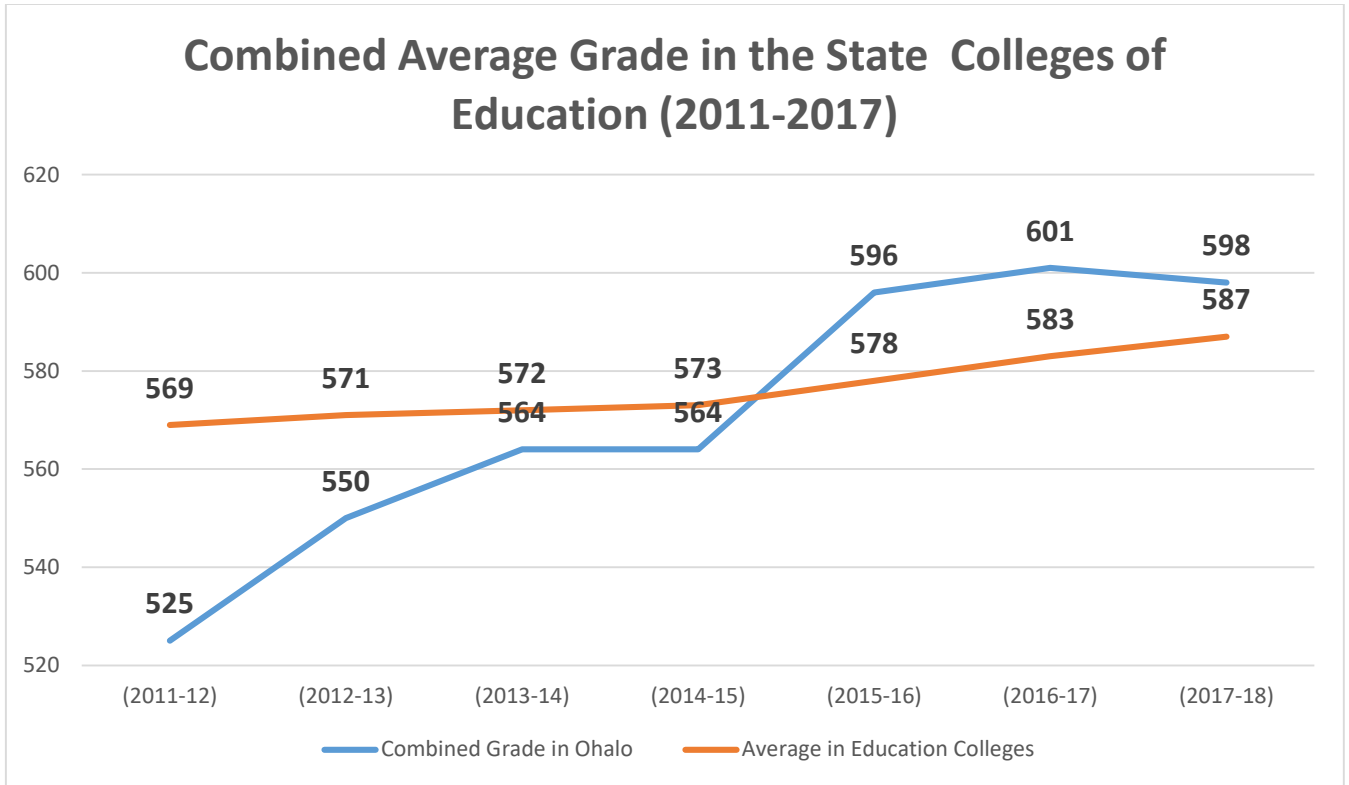|					
searching and questioning	space Biophilic space		Knowledge acquisition Debate		research competencies
Constant evaluation, reflection and examination	Home Biophilic space Continuous space	Disciplinary	Confirmation Approval Evaluation	Not necessarily	Students reflect and evaluate their own work and work of peers, design conclusions and provide recommendation

The data presented below shows clear positive results and presents the college achievements resulting from the changes made in the administrative and academic staff of the college:

1. 100% increase in enrollment (numbers include the regular academic students studying in the college for teaching certificate and the students in preparatory courses).
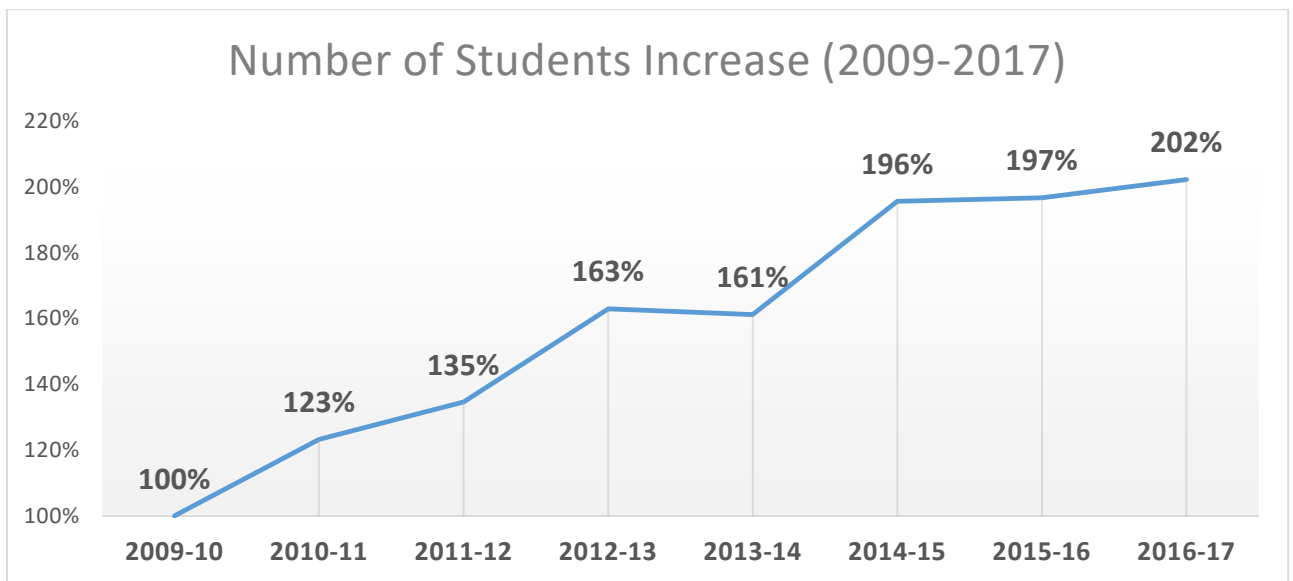

2. A significant and steady increase in admission requirements for regular students admitted to education and teaching studies at the college—From the data below the national average at the colleges of education to 11 points above the national average in those colleges (combined weighted score according to the formula based on matriculation grades and psychometric entrance test score, or high quality matriculation certificate with high grades - without psychometric examination).

Combined Average Grade in the State Colleges of Education (2011-2017)


Combined Grade in Ohalo — Average in Education Colleges

3. The constant increase of up to 133% in the college's annual budget which was approved by the Executive Board of the college and carried out by the college administration. (The budget consists of revenues from the Education Ministry, representing less than 50% of total revenues of the college, and its own revenues from the training activities in the college.)

College Budget Increase (2009-2017)
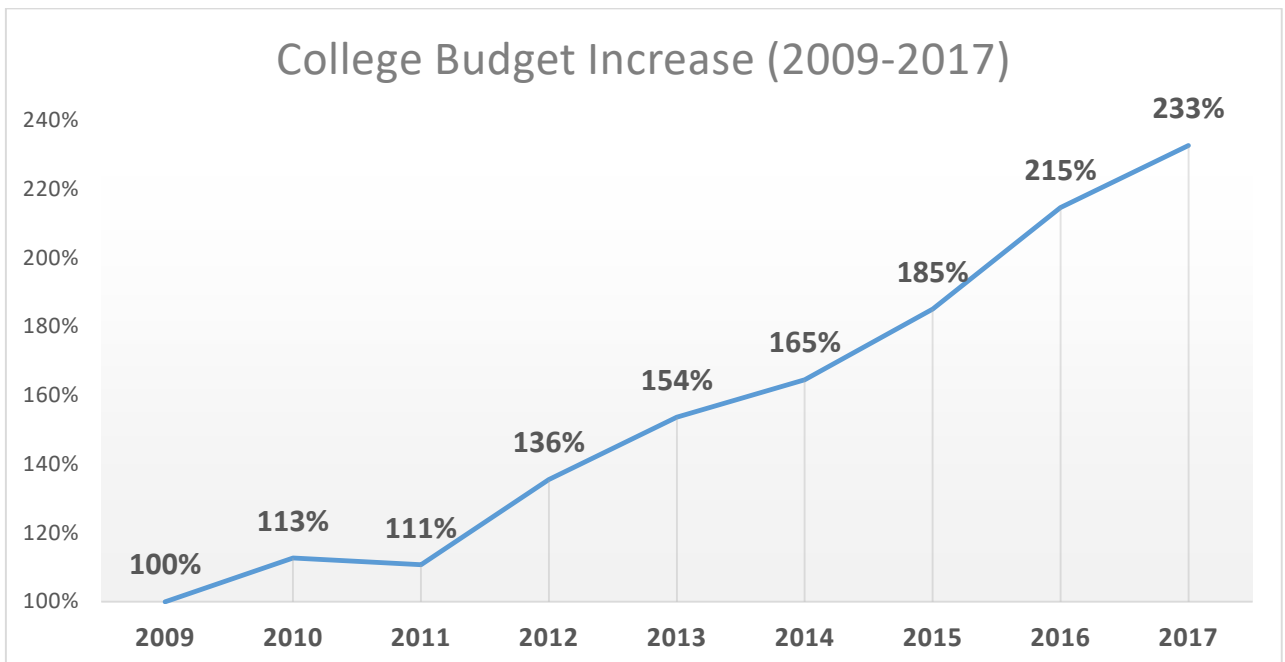
4. Significant increase in college's procurement of advanced laptops and tablets available to the students during all the study hours—An increase of several hundred percent stemming from the use of advanced innovative pedagogy. Laptops were moved around the learning spaces in charging carts, while tablets were brought by the students to schools where they undergo practical training.
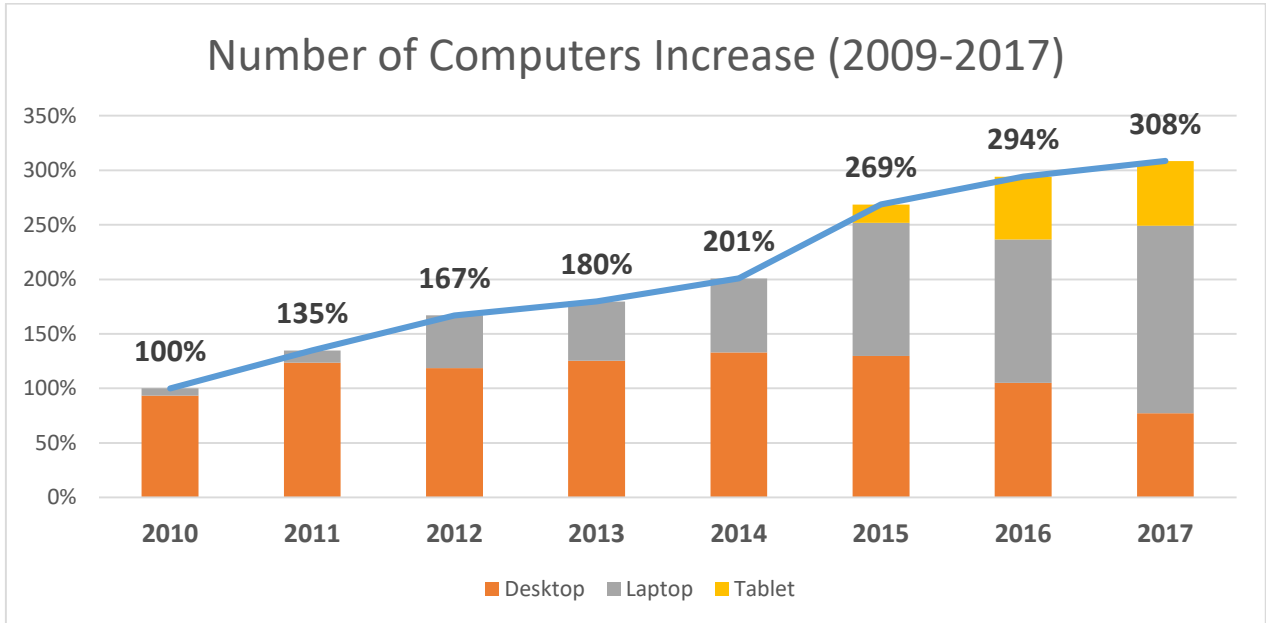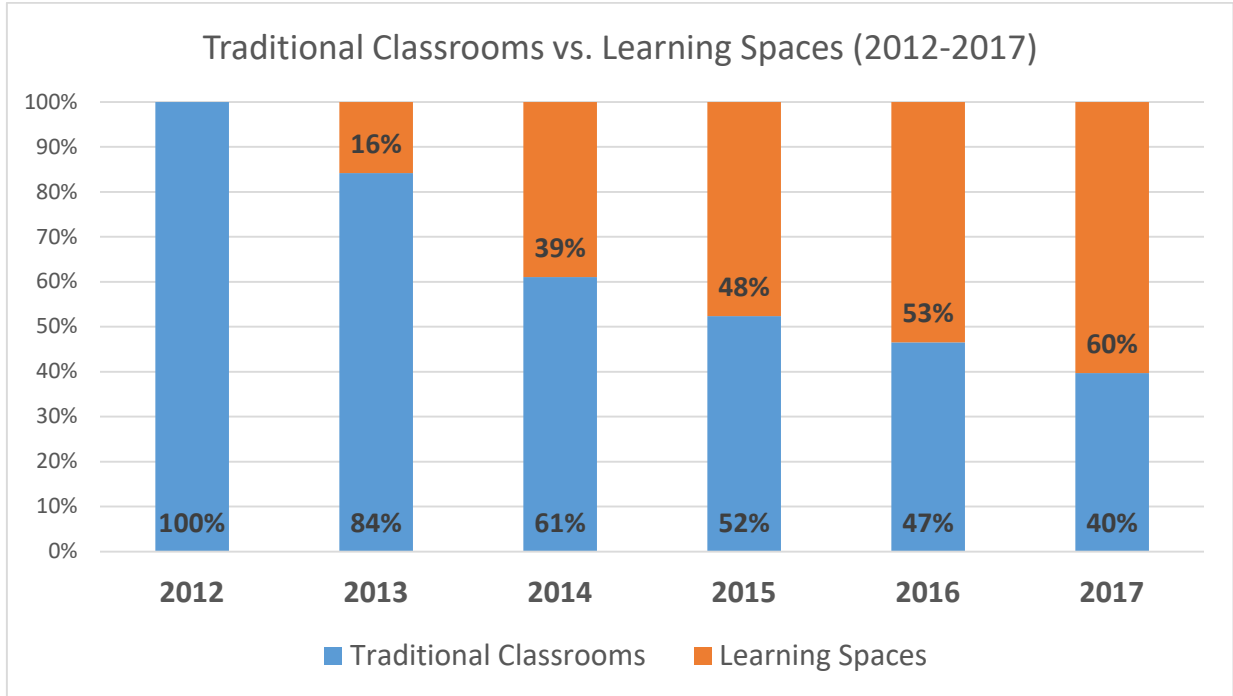

5. In the research that we have published on the influences of the course "Teach to the Future" and on the tools presented in it, the students reported an increase in their level of preparedness to adopt technological and pedagogical tools designed to improve teaching skills, their learning and evaluation. (Weissblueth, Nissim & Amar, 2014)
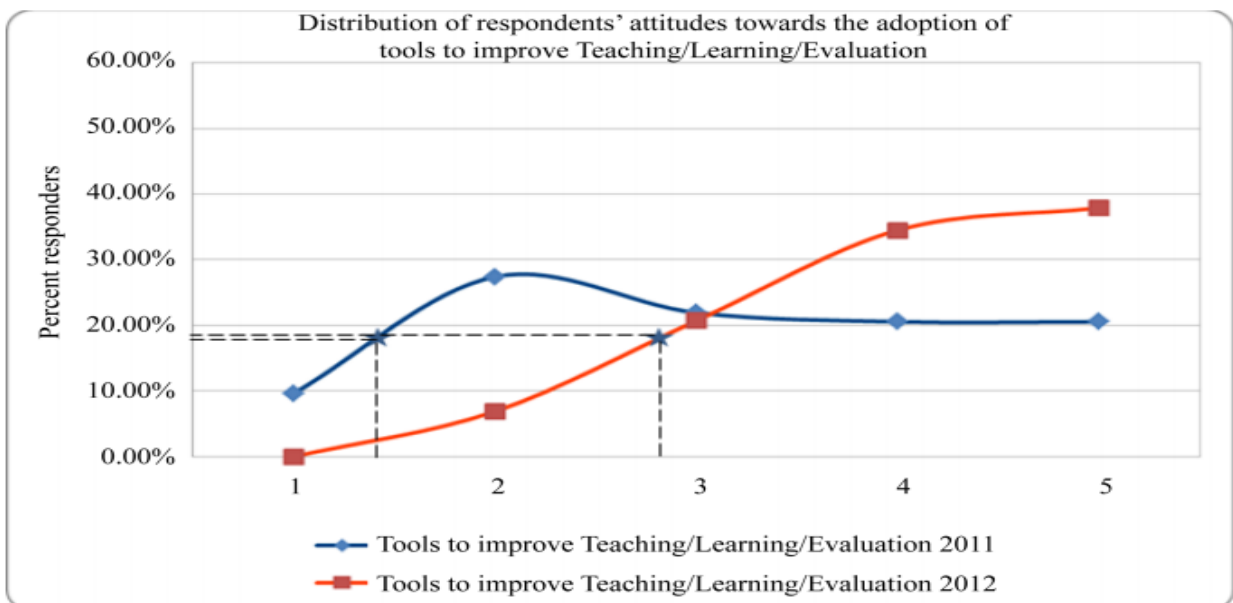
6. Significant increase in diverse learning spaces tailored to the advanced innovative pedagogies, implemented for different teaching and learning (such as meaningful learning, PBL learning, etc...) for imparting 21st century skills— These areas now constitute over 60% of college learning spaces.

Traditional Classrooms vs. Learning Spaces (2012-2017)

7. In a research that we have published regarding the use of innovative learning spaces as opposed to traditional classrooms, students reported an improvement in all tested skills such as collaboration, focus, active participation, involvement, etc. (Nissim, Weisblueth, Scott-Weber & Amar, 2014)
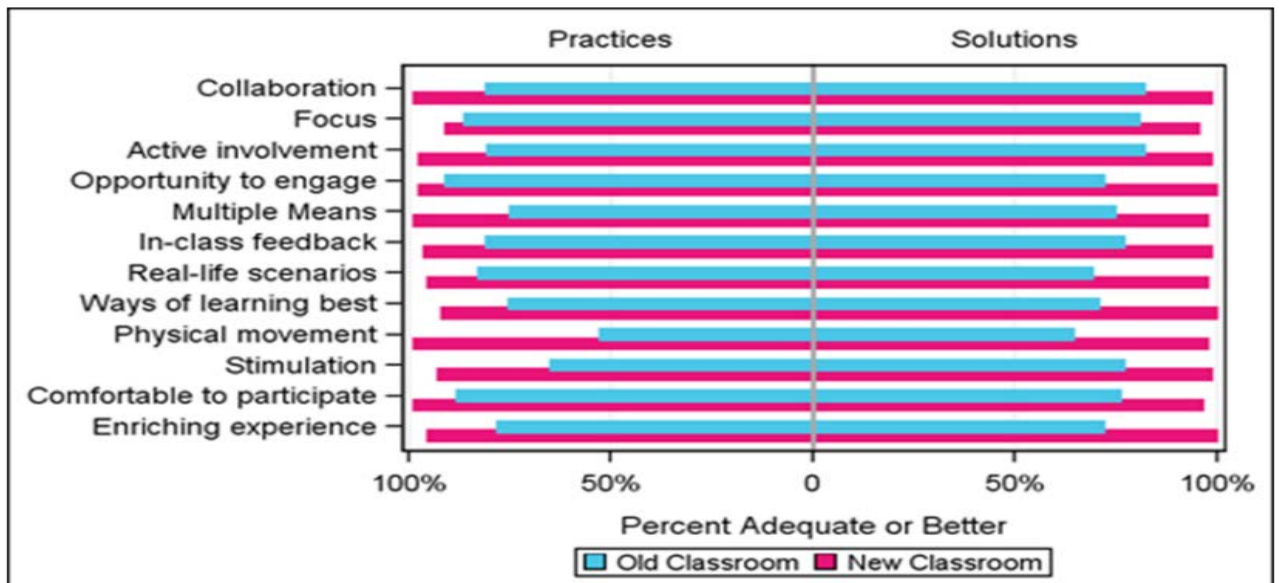
Conclusion

We could see clearly here how a different situational leadership (Blanchard, Zigarmi & Nelson, 1993) of the senior staff implemented in the College of Education led to significant change. The results indicated a significant influence on the overall parameters of college life. In order to spread the influence to the areas which were an important part of the college vision (molding the future generation), it was a clear necessity to introduce significant changes to the ways of managing the college. This led to a long-term influence on the desired major change, adapting the teacher training system to the needs of the 21st century. Later, we hope, it will lead to molding the future generations. It is still too early to determine whether this process is a success in which we would be interested. Interim data does indicate a significant influence on the study environment and methods of work of the future teachers. We hope that we will be able to further measure the influence of these processes on the schools and their students, and maybe many years in the future also on the working environment of the educational system graduates. (D.L. Kirkpatrick and J.D. Kirkpatrick. 2009)

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References

Amar, S., & Bar David, N. (2018). Adapted Learning Environments for Future Education

Systems. *American Journal of Educational Science*

Amar, S., & Bar David, N. (2016). Realistic Intelligence and 21st Century Skills in Adapted

Learning Environment. *American Journal of Educational Research, 4*(8), 588-596.

Blanchard, K. H., Zigarmi, D., & Nelson, R. B. (1993). Situational Leadership® after 25 years:

A retrospective. *Journal of Leadership Studies, 1*(1), 21-36.

Chan, K. W., & Mauborgne, R. (2005). Blue ocean strategy: from theory to practice. *California

management review, 47*(3), 105-121.

Daniels, W. R. (1994). Breakthrough performance: Managing for speed and flexibility. Act Pub.

Elliott, K. M., & Shin, D. (2002). Student satisfaction: An alternative approach to assessing this

important concept. *Journal of Higher Education Policy and Management, 24*(2), 197-

209.

Ferris, D., & Tagg, T. (1996). Academic listening/speaking tasks for ESL students: Problems,

suggestions, and implications. *TESOL quarterly, 30*(2), 297-320.

Islam, R., & bin Mohd Rasad, S. (2006). Employee performance evaluation by the AHP: A case

study. *Asia Pacific Management Review, 11*(3), 163-176.

Kezar, A. (2011). Understanding and Facilitating Organizational Change in the 21st Century:

Recent Research and Conceptualizations: ASHE-ERIC Higher Education Report,

Volume 28, Number 4 (Vol. 155). John Wiley & Sons.

Kirkpatrick, D. L., Kirkpatrick, J. D. (2009). Evaluating Training Programs: The four levels.

Berrett-Koehler publishers.

Kim, W. C., & Mauborgne, R. A. (2014). Blue ocean strategy, expanded edition: How to create

uncontested market space and make the competition irrelevant. *Harvard business review

Press.*

Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A

framework for teacher knowledge. *Teachers college record, 108*(6), 1017.

Nissim, Y., Weissblueth, E., Scott-Webber, L., & Amar, S. (2016). The Effect of a Stimulating

Learning Environment on Pre-Service Teachers' Motivation and 21st Century Skills.

Journal of Education and Learning, 5(3), 29.

Osiri, J. K., McCarty, M. M., & Jessup, L. (2013). Entrepreneurial culture in institutions of

higher education: impact on academic entrepreneurship. *Journal of Entrepreneurship*

Education, 16, 1.

Soken, N. H., & Barnes, B. K. (2014). What kills innovation? Your role as a leader in supporting

an innovative culture. Industrial and Commercial Training, 46(1), 7-15.

Temple, P. (2006). Branding higher education: illusion or reality? *Perspective, 10*(1), 15-19.

Weissblueth, E., Nissim, Y., & Amar, S. (2014). Educating for the future: A structured course to

train teachers for the 21st century. *Creative Education, 5*(11), 900.