Abstract

Statistical data shows that more than 30% of engineering students drop out in their first year which is not congruent with their academic ability. A unique Personal-Academic Coaching Program for promoting students’ learning and self-management skills, self-efficacy and academic achievements for decreasing learning failures and dropping out was developed. The coaches are college especially trained lecturers.

This article discusses the theories underpinning the Personal-Academic Coaching Model (Kedem, 2006) based on Positive Psychology (Seligman, 2007), Humanistic Psychology (Rogers, 1951) and Self-Efficacy Theory (Bandura, 1997).

The research examines the influence of personal academic coaching on self-efficacy, learning strategies and students' achievements.

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Keywords: Personal-Academic Coaching Program; Positive Psychology; Self-Efficacy.

1. Rationale

The personal-academic coaching program was developed at the Ort Braude College of Engineering in order to provide students with tools to enhance self-efficacy, improve their self-image and build personal-academic resilience.

As part of this process, 24 lecturers at the College were trained as personal-academic coaches in a unique program that had been developed by experts from the Coaches College (Kedem, 2006) together with an expert from Ort.
Braude Center for Teaching and Learning, Dr. Miri Shacham. Each lecturer-coach was provided with structured supervision during the training process.

The personal-academic coaching program was designed for students who are unable to complete their first year of engineering studies academically. Students attend the personal-academic coaching program because of unsatisfactory academic achievements and receive 10 – 12 coaching sessions in order to develop and maximize their potential for reaching personal and learning goals.

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The program is based on Humanistic Theories and Positive Psychology (Seligman, 2007). The model is a cognitive-behavioral model that focuses on utilizing potential and developing coachees' success muscles. As part of the program, college lecturers were trained at a special coaching course so that they are able to coach students, and each year about 40 students receive personal-academic coaching from college coaches. The coaching program focuses on self-management, learning management, time and tasks management, coping with stressful situations and overload, coping with exams, and academic learning.

![Fig. 1: The Six Stage Model of Personal Coaching (Kedem, 2006)](image_url)

At stage one of the program, individual coaches and coachees (student) together examine students' needs and construct desired futures using image building of a winning future. At stage two, they identify the paradigms that hinder coachees as well as areas where change is required by evaluating coachees' abilities and together constructing...
Once a future paradigm is built and student's self-efficacy is developed through working on reinforcing students and providing them with positive and positive thinking tools, students undertake what is known as a courageous act in which they apply one first detail of the process, which testifies to the start of behavioral change. As the process goes on, students, together with their coach, continue to strengthen the abilities they have acquired and in fact, to realize their newly acquired paradigm until it is fully integrated.

1. Theoretical foundation and related literature

The whole personal coaching process is based on theories of positive psychology, principally humanistic psychology (Rogers, 1951). Humanistic psychology believed that humans are inherently good, that they are able to control and direct their lives towards self-fulfillment and creativity.

Humans are driven by one central force, which is the tendency for self-fulfillment (or self-realization). This means that humans’ inherent tendency is to develop all their aptitudes, with the aim of being the best possible person that their inherited nature will allow them to be. By the best Rogers means in comparison to oneself and not others.

Thus, humans will value any experience according to the extent to which it brings them closer to self-fulfillment: if the experience brings them closer to this goal, they will derive satisfaction from it and strive towards it, however if it distances them from this goal, they will feel disappointment and try to avoid it.

Self is an important concept in most phenomenological theories and is particularly emphasized in Rogers' theory. That is why his theory is sometimes referred to as the theory of self (Rogers, 1951).

People have perceptions about their characteristics: Are they stupid or clever, feel more comfortable angry or relaxed, strong or weak, pretty or ugly, are they capable or incapable of doing different things, such as shoot at a target, run, solve routine problems, lead groups of people, etc. Likewise they have certain perceptions with regard to their relationships with others for example, are they loved or rejected. They also have perceptions about different issues in life - politics, society, and more. Besides these perceptions, self includes values attributed to them. It is possible that people may value some traits, which may be valued by society (e.g. beauty, wisdom), and not value others, because they are not valued by society (e.g. miserliness and bad temper).

People's perception of themselves in the present is called real self. Their perceptions of desired future express their aspirations and are known as the ideal self. Self includes both these facets - real self and ideal self - that is to say, the way in which humans perceive themselves as they are and as they would like to be. The level of compatibility between real self and ideal self affects the quality of adjustment. The larger the gap between the two the more people feel inferior because they see themselves as distant from where they want to be. On the other hand, the absence of any gap between real self and ideal self, causes one to stagnate. Any gap between the two types of self-perception is, thus, desirable as it drives people to reach their goals.

Seligman (2005) defined positive psychology as a psychological approach whose aim is to deal with the healthy and positive aspects of people and develop their virtues and strengths to create happiness and emotional well-being. Positive psychology focuses on building a person's positive qualities, looking forward in order to develop.

Positive psychology focuses on three main areas: study of positive feelings such as confidence, hope, faith; study of positive attributes, and especially strengths such as: courage, honesty, fairness, loyalty, perspectives as well as abilities like intelligence, sportive; and study of positive institutions such as: democracy, stable family and free press (Seligman, 2005).

In Seligman's theory, a person is at the center and therapy is person-based. Positive psychology emerged from this theory, and it also places a person at the center. Positive psychologists are interested in the “good life,” arguing that mainstream psychology has been overly concerned with distress and dysfunction at the expense of well-being and optimal functioning. In this sense, person-centered psychology is a positive psychology (Joseph & Worsley, 2007).

In his article, Coaching and positive psychology Seligman (2007), explained the importance of positive psychology as an empirical and important factor in the personal coaching processes.

Positive psychology is the study of positive emotion, of engagement, and of meaning, the three aspects that make sense out of the scientifically unwieldy notion of happiness. Positive psychology attempts to measure, classify, and build these three aspects of life (Seligman & Csikszentmihalyi, 2000). Practicing exactly these three endeavors may
bring some order into chaos by limiting coaching’s scope of practice.

Positive psychology is rooted in empirical research. It uses traditional methods of psychometrically established measurement, of experiments, of longitudinal research, and of random assignment, placebo-controlled outcome studies to evaluate whether interventions work. (Seligman, Steen, Park, & Peterson, 2005). Coaching with these evidence-based interventions and psychometrically established measures will help set the boundaries of responsible coaching practice.

One of the important foundations of a coaching process is to instill high levels of self-efficacy in students.

An additional factor that influences human behavior is one's sense of self-efficacy, meaning an individual's belief in their ability to cope with a task (Bandura, 1977). Self-efficacy pertains to peoples’ knowledge and belief that they can perform specific tasks in order to reach high achievements.

Peoples' belief in their ability to cope with a task successfully increases their tendency to invest efforts in performing the task. Self-efficacy, then, entails investment of efforts in order to reach one's goals. Alternately, low self-efficacy lowers one's motivation and leads to thoughts of failure (Lee, 2005).

People with a high sense of self-efficacy will focus their energy on analysis and solution of problems. People with low self-efficacy engage in concerns and doubts about their ability, and will expect failure even before they actually try to solve problems (Bandura & Wood, 1989). Negative belief increases pressure, unsettles effective use of cognitive strategies and eventually leads to failure.

Those who receive positive feedback, tend to believe that they have the ability to perform a task. In contrast, those who receive negative feedback may develop low self-efficacy with regard to a task.

Personal coaching has recently earned an important place in constructing empowerment and developing self-efficacy. Personal coaching is an approach to the development of excellence and success while developing one's personal potential to achieve desired goals and objectives through constant exploration in a short time (Bartlett, 2007).

Many studies over the past decade have indicated that the coaching process is a model for effective learning by being goal oriented, controlled and reflective. Hence according to researchers, it is important to include the coaching rationale in an education system as a model for effective learning (Griffiths, 2005).

Green and Norrish (2013) examined the implementation of positive psychology and coaching processes in schools with an emphasis on how the two approaches complement one another to form comprehensive practical positive programs in education.

Self-efficacy, as a key element of social cognitive theory, appears to be a significant variable in student learning, because it affects students’ motivation and learning. (Pajares, 2003). Social cognitive theory views human functioning in a transactional way, depending on reciprocal interactions between an individual's behaviours, their internal personal factors (e.g., thoughts and beliefs), and environmental events (Bandura, 1986 and Bandura, 1997). With reference to the connection between internal personal factors and behaviour, a large amount of research demonstrates that self-efficacy affects students’ performance and learning behaviour in such aspects as the tasks they choose, their exertion, perseverance, and performances (Schunk, 2003).

A coaching approach was developed in Israel by ICA (Israeli Coaching Association) based on the methodology of ICF International. The starting point of coaching according to ICF is that coachees are experts on their life and work, are complete, resourceful and creative.

A results-based coaching approach (Katz, 2011) is based on principles of classical life coaching, and its uniqueness is in the combination of thinking and classical results-based approach with principles of coaching and results-based approach in management. This approach is unique because of its ability to translate ideas, feelings, values, destination and vision into measurable results and strategy and a practical and measurable action plan (Katz, 2011).

Coaching methodology leads coachees to discover their own vision and destination while striving for happiness in life. This methodology is based on the theory of humanistic psychology that emphasizes the importance of a person at the center (Rogers, 1951) and naturally, on positive psychology whose goal is to lead people to happiness (Seligman, 2007).

A perception of success and happiness is identical in both positive psychology and coaching approaches, and is based on philosophical sources where they differ in that positive psychology focuses on the concept of happiness based on research and coaching focuses on the concept of success, values and vision as a means to happiness and is
basically a practically applied methodology (Katz, 2011).

Coaching with students is often referred to as academic coaching, and is described as neither counseling nor lessons (Dansinger, 2000).

Life coaching differs from teaching, but is much like mentoring as it engages in confidential one-on-one long-term relationship between coach and student (Witherspoon & White, 1996). It is a change in process for enhancing personal performance, personal growth and well-being. The relationship between a school counselor working as a coach and the student is equal to a situation where the student determines the agenda and the coach provides support in times of transition.

Intuitively, there are several immediate advantages for using life coaching with young people, and more specifically with students in their last year of high school. At this point of transition, students are considering changes in life, new challenges and career decisions. In their research, Jones & Frydenberg (2000) found that the first-year university students experienced higher pressure at the beginning of the semester, at the point of transition from school, than at the end of the semester before the test period. In addition, a coaching program can help students to maintain a balanced lifestyle. Moreover, early intervention can have a longer term influence throughout their lives (Jones & Frydenberg 2000). Other advantages of life coaching can be enhanced self-esteem, better career choices, and the ability to withstand social pressure. Additional advantages may be improved self-esteem, better career choice and the ability to withstand social pressure.

Wilmington and Steinwedel (2001) examined the effects of coaching intervention on the academic and personal development of students. Thirty-six medical students were chosen to join an experimental group that received coaching and two control groups. The results showed improvement in self-efficacy among students who received coaching, and the students reported that coaching helped them reach their academic goals.

Berkeley (2011) examined "academic coaching" trying to find whether academic coaching improves student responsibility, and leads to higher learning levels. The term "academic coaching" refers to a relationship between teachers and students, because it is proactive, responds to students' learning outcomes, and committed to the student's success. The teacher's role becomes less formal and more like a coach.

The connection between different theories that constitutes a research basis for different processes in psychology and personal coaching processes that have only in recent years been accepted by academia, is a very important process for constructing coaching models that can be researched and could provide an empirical and credible picture of personal coaching in general and personal academic coaching in particular.

2. Author’s contribution on the existing theory and practice in educational field

The connection between different theories that constitutes a research basis for different processes in psychology and personal coaching processes that have only in recent years been accepted by academia, is a very important process for constructing coaching models that can be researched and could provide an empirical and credible picture of personal coaching in general and personal academic coaching in particular.

Personal coaching has taken on a significant role in the process of developing empowerment and self-efficacy processes. Coaching is an approach to build up excellence and success while developing one's personal potential for the purpose of reaching short term (Blanchard & Frasson, 2006) and desired goals through constant learning and investigation. Research has shown that advancement of learning is done by helping students, through coaching, to set long-term goals and derive activities from these goals, so as to be able to reach them. Students learn to predict obstacles expected on the way to reaching goals and develop strategies for coping with them while identifying possible help routes (Merriman & Codding, 2008). Research conducted in UK schools found that coaching contributed to improving students' academic achievements (Passmore & Brown, 2009)

3.1 Author's contribution on the topic

Very few studies have dealt with the topic of the contribution of a personal coaching program to academic achievement and self-efficacy. The available body of research on this topic focused on high-school students or teachers who have received coaching themselves.

The proposed research intends to examine the influence of personal academic coaching on self-efficacy, learning
strategies and academic achievements among engineering students.

The research population will be made up of 40 engineering students at Ort Braude College of Engineering in Karmiel, Israel, and 15 coaches who have been trained according to the six-stage model.

Questionnaires will be used to test self-efficacy and learning strategies before and after the coaching process and academic achievements will be examined before, immediately after and one semester after the coaching process. The researcher will carry out in-depth interviews with a sample population of students and coaches in order to investigate the contribution of the personal academic coaching process to their personal and professional development.

3. Conclusions

This research may be significant in examining the influence of personal academic coaching on engineering students and if its success is proven, it will be possible to build a model suitable for many academic systems in Israel and worldwide.

References


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