



Babeş-Bolyai University, Cluj-Napoca

Faculty of Psychology and Education Sciences

**Personal Academic Coaching for Enhancing  
Effective Learning Strategies, Self-Efficacy  
and Students' Academic Achievements**

**Long Abstract**

**PhD Coordinator: Professor PhD. Cristian Stan**

**PhD Student: MARGALIT BEN-YEHUDA**

**CLUJ-NAPOCA, 2017**

## TABLE OF CONTENTS

### List of publications

- ✓ Ben-Yehuda, M., Shacham,M. Stan,C.(submitted. (2017). The Way to Empowering Lecturers – Personal Academic Coaching as contribution to Lecturer-coaches. Fifth Edition of the Education, Reflection, Development 2017, Cluj-Napoca, Romania.
  
- ✓ Ben Yehuda,M, Ungureanu,D, Stan,C. (2016). The Success Connection: the Relationship between Personal Coaching and Academic Success. The European Proceeding of Social & Behavioural Sciences, eISSN2357-1330.
  
- ✓ Ben-Yehuda, M. (2015). The Route to Success–Personal-Academic Coaching Program. *Procedia-Social and Behavioral Sciences*, 209, 323-328.

# INTRODUCTION

*The best way to predict the future is to create it.*

Peter Drucker

## Research Background

World these days demands that we be capable of coping with many challenges every day, with a constantly changing reality, without knowing for certain what is correct or not. These days, when one must think creatively and set defined aims to reach clear goals, the process of personal coaching is growing in many organizations in a variety of formats.

Personal coaching has spread rapidly around the world and has many directions and wide areas of interest. It is a domain in which one can make decisions by highlighting personal responsibility based on personal strengths. Among the fields in which personal coaching has developed in recent years is the area of Personal Academic Coaching- in high schools (Green & Norrish, 2013), in early stages of students' learning (Jones & Frydenberg, 2000), and during various periods of students' academic studies (ibid; Berkeley, 2011). Coaching enables students to define their goals, find their strong points, and use them to achieve goals has made Personal Coaching increasingly popular in academia. It has become an integral part of improvement, progress, and excellence processes: thoughts turn to making this area a profession through diverse studies examining the effectiveness of the Personal Academic Coaching process (Grant, 2006).

In light of a 30% dropout rate during first year of engineering studies, a Personal-Academic Coaching Program was developed at an academic college in northern Israel, in 2009, to promote students' learning and prevent dropping out in their first year of study. The program sought to provide students with tools to improve their self-efficacy, build up their self-image, and strengthen their learning strategies while enhancing academic success. Twenty-four lecturers were certified as personal academic coaches in a unique program. Every lecturer was allocated a supervisor for the first coaching process.

During the Personal Academic Coaching program, students meet their coach for 10-12 meetings. The aim of these meetings is to help develop and maximize their potential

to reach their personal and academic goals. The program's model is a cognitive-behavioral model focusing on using one's personal potential and developing coachees' 'success muscles'. Approximately 50 students, whose academic status is unsound, are referred to the Personal Academic Coaching program in the college every year. The program focuses on providing learning strategies in the areas of self-management, time and task management, coping with pressure situations, and academic learning. All these tools are combined with strengthening and nurturing students' self-efficacy.

The theoretical basis on which the Personal Academic Coaching is based, combines three main theories: (1) The **humanistic psychology approach (Rogers, 1951)**; (2) Positive psychology (**Seligman, 2007**) and (3) **Self-efficacy (Bandura, 2006)**;

The influence of Personal Academic Coaching on students' learning strategies has been proven. When learning strategies were defined as learners' behaviors and thoughts adopted during learning (Ruffingewt et al., 2015), the effect of personal coaching also improved students' meta-cognitive processes, when metacognition refers to people's knowledge and control over processes and products of their cognitive system (Flavell, 1979). Finally, the Personal Academic Coaching process has been proven significant, allowing students to understand and control their lives. It can be seen in many studies that when characteristics of positive psychology exist, as in the case of the Personal Academic Coaching program, one can improve one's meta-cognitive skills (Marshall, 2016).

### **Gap in Knowledge**

Most coaching and learning studies have focused on high school students and very few on students in academia. This is an innovative study investigating an original Personal Academic Coaching program that was developed in an engineering college in northern Israel. This program focuses on possible benefits of Personal Academic Coaching for engineering students in their first year at college.

### **Research Aim**

The research goal is to examine the contribution of a Personal Academic Coaching Program to the students in the following aspects: (1) self-efficacy; (2) effective learning strategies; and (3) academic achievements. As stated, there are few studies in the area of Personal Academic coaching generally and academic

coaching in particular and it is the aim of this research to put forward new models in this area of knowledge.

The research sought to expand existing knowledge in the field of personal coaching in general and Personal Academic Coaching in particular. The research examined the influence of Personal Academic Coaching based on the Six Stage Model (Kedem, 2006).

The research aims were

1. To investigate the contribution of Personal Academic Coaching Program to self-efficacy, learning strategies, and academic achievements of engineering students whose academic status was unsatisfactory
2. **To examine what are the correlations between self-efficacy, learning strategies, and students' academic achievements**
3. **To explore what is the Personal Academic Coaching contribution to the lecturer-coaches.**

### **Researcher's Motivation**

As a lecturer-coach, in one of my personal meetings with a student during the coaching process, she said, "Because of personal academic coaching I got back my confidence in myself". From my point of view, students whose academic status become sound again, who believe in their ability to succeed, who experience successes that strengthen their self-confidence and change their restricted paradigms to more progressive ones - each one of them bolsters my own sense of success.

## **CHAPTER I: LITERATURE REVIEW**

### **Main Theories on Which the Research Is Based**

**Humanistic Psychology** (Rogers, 1951) seeks to emphasize that every person is unique and special, and each person has the ability to make free choices towards realizing his/her wishes while taking responsibility for his/her life. Humanistic Psychology places people in the center, and inspired Positive Psychology, which also focuses on people and the 'good life' they can create for themselves (Joseph & Worsley, 2007).

**Positive Psychology** –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 constitutes a bridge between academic research and its application in daily life and in various areas such as education, management, and personal coaching, using controlled research methods to analyze events in the field.

**Self-Efficacy** (Bandura, 1997) – The term 'self-efficacy' derived from Bandura's (2006) Social Learning theory, which perceives people as social creatures, which leads to people-society mutuality. Bandura maintained that because of interaction with the environment, one can learn by observing others. As such, it is possible to see the overlap between Bandura's Self-Efficacy theory (which guides people's beliefs about their capabilities) and Positive Psychology, and seeks to find ways to guide people towards aspiring to reach goals and experience a sense of achievement.

**Learning Strategies** – Learning strategies have been defined as behaviors and thoughts that learners adopt in the course of learning (Ruffingewt et al., 2015). These strategies influence coding processes with regard to subjects that students have studied and assimilating of the ability to apply knowledge in more than one learning environment. An additional factor that helps improve academic achievements is a sense of control that students have with regard to their academic performance (Jackson & Moore, 2006). Academic achievements are the outcome of a student's knowledge and of proper use of personal strengths. (ibid; Linely (2006). These strengths are an outcome of the Personal Coaching process, so if the process seeks to enhance learning strategies while anchoring students' strengths, the students can improve learning strategies and together with their strengths, get to a state of improved academic achievements. Apparently, learning strategies are influenced by Positive Psychology and the coaching process, and influence students' academic achievements.

## **Personal Coaching**

*“Coaching done well may be the most effective intervention designed for human performance.”* Atul Gawande (2011)

Coaching offers a practical approach mostly directed at people who seek to reach personal and professional goals and promote their quality of life. The coaching aim is

to sustain cognitive, emotional, and behavioral changes that facilitate goal attainment and performance enhancement either in one's work or in one's personal life (Douglas & McCauley, 1999). More and more individuals and organizations tend to employ professional coaches to help them reach their personal and work-related goals (Grant, 2003).

Personal coaching has recently earned an important place in constructing empowerment and development of self-efficacy. It 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 (Blanchard and Human, 2006; Bartlett, 2007).

The basic assumptions on which all coaching programs rely are these:

- ✓ According to humanistic psychology and philosophy, coaching regards the person as a positive, strong, and able who is the only one responsible for personal choices, mistakes, and the outcome of coaching.
- ✓ Coaching relies on theories of motivation and self-regulation and emphasizes autonomy, as well as connecting the coachee's goals to intrinsic motivation.
- ✓ Integration of theories is accepted as grounds for coaching approaches, thus following the approaches of Baban (2007) and Schwarzer (2008), who proposed an intervention model for health risking behavior, and believed that diversity in complex behavior better explained by a combination of theories than by only one theory.
- ✓ Focus is on the present and future, goal and solution directed, and not on insights or explanations for problems in personal history.
- ✓ Coaching is a strategy directed at meaningfulness and focuses on consequential action, which helps coachees reach their goals.
- ✓ A coach's tool kit consists of learned and tested skills, guided by an ethical code.

Many studies over the past decade indicate that the coaching process is a model for effective learning by being goal oriented, controlled, and reflective. Hence, it is

important to include the coaching rationale in the education system as a model for effective learning (Griffiths, 2005). Stelter (2007) described a coaching process as a particular type of conversation between coach and coachee, which allow a coachee to reach goals. A coach is a participant in a coachee's learning and development process and provides the focus that is necessary for success. The coach's role is to allow a coachee to express thoughts aloud, so as to focus on suitable goals.

Relationships between coaches and coachees have been researched extensively in recent years. Henriques (2017) raised important principles regarding the success of coaching as dependent on this relationship, concluding that coaches who are warm and supportive may neither challenge their coachees nor lead them to competitive social behaviors that lead to higher performance levels. The research also showed that the coach's experience is a significant factor in the success of coaching and relationship with the coach, but this experience is not significant without coaches' proper training (Steller, 2013; Knight et al, 2015)

Coaching belongs with this trend of setting personal goals, emphasizing personal responsibility, which is based on future oriented personal strengths, like humanistic philosophy and psychology (Maslow & Rogers, 1979; Frankel, 1970).

Personal Coaching has the potential to build resilience and improve self-esteem and quality of life for students. Students reported greater investment in studies as a result of the coaching process (Campbell & Gardner, 2005).

In an interview with Dr. Oana David (Freeman, 2016), she explained that life coaching suits any person who sets goals of personal growth, self-knowledge, and success. Dr. David emphasized that there are different types of personal coaching, and each coach seeks to work with his/her knowledge and understanding, but it is important to adhere to examined and established theories and psychological models.

### **Coaching For Academic Success**

Studies conducted in the education system found that academic coaching promotes students' effective learning and learning skills, leads to setting long term goals, and contributes to coping abilities (Green et al., 2006, 2007). Studies have pointed to better goal accomplishment, advanced metacognition, and decreased anxiety and depression (Grant, 2003; Grant, Linley, & Burton, 2009). Coaching empowered



learning thanks to the strong partnership created among students, their coaches, and the academic institution (Tee, Jowett, & Bechelet-Carter, 2009).

Life coaching resembles mentoring, as it engages in a confidential, long-term, one-on-one relationship between coach and student (Witherspoon & White, 1996). It establishes a change in the process of enhancing personal performance, personal growth, and well-being. The student determines the agenda and the coach provides support in times of transition.

Barkley (2011) examined "academic coaching", trying to determine whether it improves student responsibility and leads to higher learning levels. Academic coaching is proactive, responds to students' learning outcomes, and is committed to their success. To advance a student, the lecturer-coach has to ask empowering and challenging questions and allow the student to cope with an additional challenge each time. This allows students to improve their learning skills and to succeed in academic studies.. Students' coaching research has reflected the need to find ways to help students reach their academic goals and achieve success.

### **"Personal -Academic Coaching Program" in an Engineering College**

The Personal Academic Coaching Program was initiated in an engineering college in the north of Israel as a result of more than 30% dropout rate during first year of study. The program aims were to promote students' learning and decrease dropout rates. The program, based on the Six-Stage Model of Kedem (2006), is directed at engineering students whose academic status is unsatisfactory, and seeks to help students enhance their sense of self-efficacy, acquire new learning strategies, and shatter the paradigms that hold them back. The main goal is to provide students with tools to help them succeed in their studies. During the coaching process, each student gets 10-12 coaching encounters that deal with self-efficacy, learning strategies, coping with stress and exams, time and task management. The following figure depicts the Six-Stage Model of Personal Academic Coaching (Kedem, 2006).

### **Figure 1: The Six Stage Model of Personal Academic Coaching (Kedem, 2006)**

The model consists of six stages:

1. **Identify problem** - define need in practical terms.
2. **Desired future**: define desired goals, create a personal vision.
3. **Current paradigm**: diagnose and evaluate abilities and blocks.
4. **Future paradigm**: consolidate strategies for new patterns of behavior as a basis to realize the vision and achieve the desired goals.
5. **"Brave Act"**-Training and exercise - realizing a systematic personal program to develop capability and success muscles.
6. **Establishing capabilities** - implement changes and new habits, measure results and examine how they meet expectations

This personal-academic program is investigated in this research.

### **Conceptual Framework**

This research focuses on the contribution of Personal Academic Coaching to self-efficacy, learning strategies, and academic achievements of engineering students. A comprehensive literature review has yielded various theories and approaches that set the grounds for research in the field of personal coaching in general and Personal Academic Coaching in particular. The conceptual framework represents specific theories or their components that underpin this research. The conceptual framework pertains to six interrelated components, as presented in the following figure.

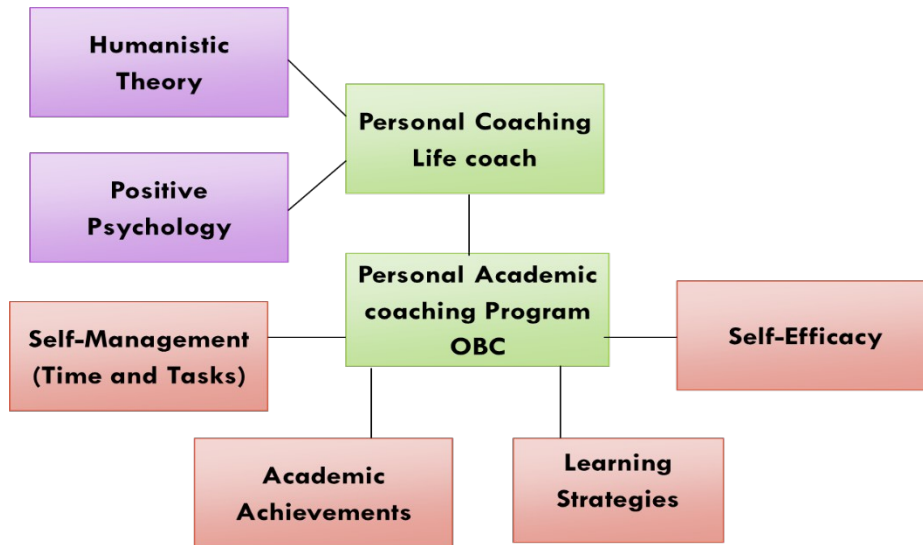


Figure 2: Conceptual framework

## CHAPTER II: RESEARCH DESIGN AND METHODOLOGY

This chapter describes the research design and the rationale behind the decisions of the research methodology.

### Research Aims

The research aims were:

1. To investigate the contribution of Personal Academic Coaching Program to self-efficacy, learning strategies, and academic achievements of engineering students whose academic status was unsatisfactory
2. To examine what are the correlations between self-efficacy, learning strategies, and students' academic achievements.
3. To explore what is the Personal Academic Coaching contribution to the lecturer-coaches.

### Research Questions

Three key questions were formulated to guide the current research:

1. **What is the contribution of the Personal Academic Coaching Program to Israeli students in the following aspects:**

- (a) Sense of self-efficacy; (b) learning strategies; and (c) academic achievements
2. What are the correlations between self-efficacy, learning strategies, and students' academic achievements?
  3. What is the Personal Academic Coaching contribution to lecturer-coaches?

These questions were formulated to find answers for the research process both in its quantitative and qualitative parts, examining the contribution of Personal Academic Coaching from the perspective of students who have been coached and lecturer-coaches who implemented the coaching program.

### **Research Hypotheses**

- 1a:** Personal Academic Coaching promotes self-efficacy in engineering students.
- 1b:** Personal Academic Coaching Program promotes effective learning strategies in engineering students.
- 1c:** Personal Academic Coaching Program helps engineering student to improve their achievements.
- 2:** The higher the students' sense of self-efficacy and the more improved the learning strategies, the higher their academic achievements.

### **II.1 Research Paradigm**

The research paradigm is mixed methods research. This is a combination of the positivist approach and the constructivist/qualitative approach (Hanson et al., 2005; Shkedi, 2011). A combination of these two approaches suits the integrative-practical spirit of the coaching approach under study, and enables an abundant production of possibilities to examine the researched phenomenon according to the research aims. Research literature refers to mixed methods research as a paradigm in itself (Shkedi, 2011).

Many research ventures adopt both approaches, whether to guarantee the findings' validity or to suggest various interpretations for a phenomenon, based on the priorities

set for different issues (Harrison, 2005; Creswell et al., 2011). This mixed methods research constitutes a type of research that complements quantitative research and should usually be used in two cases: (1) in the study of areas that cannot be quantified measured or statistically analyzed; (2) in research that complements quantitative research. Mixed methods research combines the advantages of both approaches and provides the opportunity to obtain both types of data. Mixed methods research bridges the conflict between quantitative and qualitative research, and allows for a broader view of the variables (Creswell, 2011, 2013).

**Table 1: Summary of the research quantitative stages**

Questionnaire	Grades
<b>Stage 1 - 46 students completed the questionnaire prior to coaching</b>	Stage 1 - Collecting students' grades prior to the coaching process when students' academic status was below the required standard
<b>Stage 2 - 46 students completed the questionnaire after the coaching program (after one semester)</b>	Stage 2 - Collecting students' grades after the coaching process
	Stage 3 – Collecting students' grades after a further study semester

## II.2 Qualitative Research Questions

Questions in interviews with students and lecturer-coaches sought to examine the following key question: Did the Personal Academic Coaching process benefit you? In what aspects? The following figure depicts the stages of the qualitative research process.

### **Figure 3: Stages of qualitative research**

Data gathering strategies were in-depth interviews with students who had undergone a process of coaching, to examine their perceptions of the coaching process and its influence, as well as in-depth interviews with lecturer-coaches to get the broadest possible picture of both coachees' and lecturer-coaches' experiences. Furthermore, a quantitative part used statistics, where data was objective and therefore the choice for this research was for mixed methods research.

### **Research Design**

The research consisted of two main stages: a quantitative stage where questionnaires were administered to three groups of students, and a qualitative stage with in-depth interviews with students and lecturers-coaches.

The research stages, their aims, research tools, research population and data analysis methods are presented in the following table:

**Table 2: Summary of the Research Design**

	<b>Stage 1: Quantitative</b>	<b>Stage 2: Qualitative</b>
<b>Approach</b>	<b>Positivist/ Experimental</b>	<b>Constructivist/Interpretive</b>
<b>Design</b>	Experimental –using quantitative methods	Qualitative narrative: seeking to find answers through participants' perceptions
<b>Goal</b>	To examine the contribution of Personal Academic Coaching Program to the students in the following aspects: (1) Self-efficacy; (2) Effective learning strategies; (3) Academic achievements	To investigate the contribution of Personal Academic Coaching according to the perceptions of students and lecturer-coaches
<b>Stages</b>	<p><u>Questionnaires</u></p> <ol style="list-style-type: none"> <li>1. Questionnaires before coaching</li> <li>2. Questionnaires after completion of coaching</li> </ol> <p><u>Grades:</u></p> <ol style="list-style-type: none"> <li>1. Before the coaching process</li> <li>2. After the end of the coaching process</li> <li>3. After one semester</li> <li>4. Comparison with students who did not receive coaching</li> </ol>	Semi-structured in depth interviews after the coaching process.
<b>Participants</b>	<p><u>222 Israeli engineering students:</u></p> <p>46 Israeli engineering students who underwent the coaching process.</p> <p>165 students who did not get any help</p> <p>11 students who received other types of help</p>	15 students who underwent the Personal Academic Coaching process and 10 lecturer-coaches who coached the students in this program
<b>Research Tools</b>	Questionnaires before and after the coaching process, students' grades before and after the process as well as after another semester	Semi-structured in-depth interviews of students and of lecturer-coaches after the process
<b>Methods of Analysis</b>	Statistical analysis of questionnaires and grades	Qualitative content analysis according to emerging themes and categories
<b>hypotheses -</b>	There will be significant differences	Themes that emerge from the interviews will

<b>expected results</b>	between students' grades before and after the process as well as changes in learning strategies and self-efficacy	correlate with quantitative data. Participants will explain the effect of the process from their points of view and raise points that will form the basis of further research
<b>Researcher's involvement</b>	Researcher is not personally involved in order to prevent influence on the data	The researcher carries out the interviews

### II.3 Research Population

The research population included 222 engineering students at the end of their first year of study, whose academic status was unsatisfactory and 10 lecturers-coaches. The students were divided into three groups: (1) the research group – 46 students who underwent the Personal Academic coaching program; (2) one control group – 165 students whose academic status was unsatisfactory, and did not receive any help; (3) a second control group of students who were not coached, but received other types of help such as mentoring or a different form of counseling.

All students were Israeli residents aged 24 – 28. Participants came from the Jewish, Arab, and Druze sectors, from different faculties at the college. All of them filled in questionnaires at the end of the first year and again at the end of the first semester of the second year.

Ten lecturer-coaches also participated in the research. They all participated in a personal coaching training course in the college. The training program was especially developed for Personal Academic Coaching in an engineering college. The training course was based on the Six-Stage Model that was especially developed for coaching students.

### II.4 Research Tools

The research made use of three main tools: questionnaires, in-depth interviews, and transcripts of academic achievements.

#### A. Questionnaires

**MSLQ - Motivated Strategies for Learning Questionnaire** devised by Pintrich, Smith, Garcia, & McKeachie (1993). Forty-six items from the original version were adjusted to the current research. The questionnaire measures the level of participants' self-efficacy and learning strategies.



Questionnaires were administered to students twice: in the end of the first year of studies-before the implementation of the Personal Academic Coaching, and again at the end of the program (the end of the first semester in the second year).. The goal of the questionnaire was to examine whether, as a result of the coaching program, there was a change in the students' sense of self-efficacy and learning strategies.

**Table 4: Summary of research questions according to the examined issues**

Scale	No.	Item Comprising the Scale
Control of Learning Beliefs	4	2,9,18,25
Test Anxiety	5	3,8,19,14,28,
Task Value	6	4,10,17,23,26,27
Self-Efficacy for Learning	8	5,6,12,15,20,21,29,31
Organization	4	32,42,49,63
Peer Learning	3	34, 45, 50
Time/Study Environmental Management	4	35,46r,65,73
Metacognitive Self-Regulation	8	36,41,44,54,55,61,76,79
Help Seeking	4	40r, 58, 68, 74

#### **B. Transcripts of Academic Achievements**

Use was made of the students' transcripts to examine their academic achievements at three time points: before the coaching program, at the end of the program and in the end of the semester following the program. Furthermore, the academic achievements of 165 students who were not coached at all and 11 students who received other types of help such as tutoring, mentoring or a psychologist were compared with those of students who underwent coaching. The goal of the comparison was to examine whether the students improved their grades as a result of their participation in the Personal Academic Coaching Program.

#### **C. In-Depth Interviews**

In-depth semi-structured interviews were conducted with 15 students and 10 lecturer-coaches with a link to the research questions and aims. Both students and lecturers-coaches came from different faculties at the college. This research tool, as used in the research, allowed the researcher to add and change questions whilst the interviews were carried out to obtain a more comprehensive picture and understand students and lecturers-coaches' attitudes and perceptions with regard to the personal-academic coaching program. The questions were open-ended in order to obtain the whole range of opinions and feelings without the researcher's direction (Tzabar Ben-Yehoshua, 2016).

## **II.5 Research Reliability and Validity**

As for the quantitative part of this research, the researcher used an existing questionnaire in English (Pintrich et al., 1993), and since the research population consisted of Hebrew speaking students, the questionnaire was translated by an expert.

To examine the questionnaire's reliability, it was administered to 15 students and educators who made comments. All the answers, together with the comments were submitted to a statistics expert for examination of reliability, and there were some cases where questions were rephrased. Only then were the questionnaires administered to students who had undergone the process of Personal Academic Coaching.

To maintain reliability in the qualitative part, explanations were provided throughout the research, with regard to every stage, from establishing the first contact with the students through to the end of the process. Recording and transcriptions were saved and kept safe throughout the research.

## **II.6 Generalization**

Research allows generalization in one of the following ways:

- ✓ Generalization from case to case (echoing)
- ✓ Generalization from sample to population
- ✓ Generalization from theory

In the quantitative part of this research, generalizability is expressed in the design of research tools and the ability to reconstruct the research. The research population, which included 46 students (40 research participants allows for high generalizability), also lead to generalization in the quantitative part. In the qualitative part, there was never an intention to reach generalization. The aim of the qualitative research stage was to enrich understanding and knowledge about the model and to examine the participants' perceptions of the coaching process from their subjective perspective (Denzin, 1983).

## **II.7 Research Triangulation**

This study employed three types of triangulation:

- ✓ Data triangulation: Data was collected from in-depth interviews with students who had undergone the Personal Academic Coaching process and from lecturer-coaches who took part in the coaching process
- ✓ Time triangulation: Data was collected over time. Student data was collected using questionnaires before and after the personal-academic coaching process and one semester more, approximately four months after the first round.
- ✓ Methodological triangulation: Three different tools guaranteed the validity of the findings: semi-structured in-depth interviews, questionnaires from before and after the coaching process, and students' grades.

**The following figure demonstrates the triangulation methods of this research**

**Figure 4: Triangulation of research methods**

## **II.8 Data Analysis Methods**

The process of analyzing data is the heart of qualitative research and allows researchers to move from reporting to science by creating order and connections between actions and phenomena, and by structuring information and providing interpretations and meanings to texts (Creswell, 2003; Shkedi, 2016; Tzabar Ben-Yehoshua, 2014).

Weber (1990) pointed out that the key idea in content analysis is that many words in a text are sorted into single categories, sorting and breaking data down to ascertain its meaning, by comparing between different pieces of information, finding similarities, differences, and links. The categorization process is done within categories themselves and later between all categories.

In the first phase of the current research, after carrying out the interviews, the researcher read the texts a number of times. Alongside each paragraph an appropriate theme was identified and noted. Then the themes were narrowed down into main themes. From that point on, emerging themes constituted grounds for examining research questions. Later on, an analysis of the quantitative data will be presented, including statistical analysis of the questionnaires before and after the coaching process and analysis of participating students' academic achievements.

In this study, qualitative content analysis was carried out on data collected in interviews; a work process that included extracting themes to be ascribed to categories (Shkedi, 2014), aligned to and matching the research questions. The analysis process was systematic and carried out according the stages proposed by Kacen and Krumer-Nevo (2010):

- ✓ Holistic reading of data
- ✓ Initial mapping: organizing and narrowing down of data
- ✓ Breaking data up into small units of analysis: story, word, sentence
- ✓ Coding and naming: restructuring data into categories and illustrating theories
- ✓ Holistic rereading
- ✓ Verifying findings
- ✓ Writing, while emphasizing the way in which raw data became findings and conclusions

The quantitative part of the research that included student questionnaires before and after the coaching process as well as students' grades, was analyzed statistically.

## **II.9 Ethical Considerations**

Two **major ethical issues** arose during this research:

1. **Informed consent** – The researcher made sure to inform the participants of the goals of research before they agreed to participate. The participants signed

an informed consent form. The ethics premise is that the individual rights of the participants have to be protected (Tzabar Ben-Yehoshua, 2001).

2. **Anonymity** – All names of students and lecturer-coaches remained confidential, and data was presented numerically. The participants were promised that the research is only for scientific purposes and no other use will be made of the findings.

In the qualitative research stage that included personal interviews that were conducted by the researcher, students and lecturer-coaches volunteered to take part and signed an informed consent form.

## **CHAPTER III: RESEARCH FINDINGS**

### **III.1 Main Findings with Regard to the First Research Question**

**The first research question was:** *What is the contribution of the Personal Academic Coaching Program to Israeli students in the following areas: (a) sense of self-efficacy; (b) learning strategies; (c) academic achievements?*

**Research hypothesis 1a:** Personal Academic Coaching promotes self-efficacy of engineering students.

**Research hypothesis 1b:** Personal Academic Coaching promotes effective learning strategies of engineering students.

**Research hypothesis 1c:** Personal Academic Coaching helps engineering students to improve their academic achievements.

#### **III.1.1 Findings Related to Research Hypotheses 1a, 1b, and 1c**

Table 3 shows a t-test comparison of students' self-efficacy, learning strategies, and academic achievements before and after the coaching process and one semester after coaching program, and presents data according to the research hypotheses.

**Table 3: t-test - a comparison of students' self-efficacy, learning strategies, and academic achievements before and after coaching**

		Before (n=46)		After (n=46)	
	M	S.D.	M	S.D.	t
<b>Self-efficacy</b>	4.66	.65	5.26	.80	4.92***
<b>Learning strategies</b>	4.12	.67	4.57	.78	3.87***
<b>Academic achievements</b>	54.3	8.28	71.3	6.82	13.61***
<b>After coaching program</b>					
<b>Academic achievements</b>	54.3	8.28	70.7	11.1	10.31**
<b>One semester after coaching program</b>					

In light of the data presented in Table 3, research hypothesis 1a, 1b, 1c is fully confirmed.

To examine whether Personal Academic Coaching constitutes a better way of helping students, the grades of students who took part in the Personal Academic Coaching Program were compared to those of students in different groups (students who got different types of help and students who received no help) as a control group. All the students in the control group were in an unsatisfactory academic status in the end of their first year in Engineering. The findings in the following table show the differences in academic achievements of these students.

**Table 4: One-way ANOVA examining differences in academic achievements among the three groups**

		N	Mean	SD	f	Sig
<b>Semester average grade before the process</b>	No assistance	165	44.94	14.77	10.628	.000
	<b>Coaching</b>	<b>46</b>	<b>54.36</b>	<b>8.28</b>		

	Another treatment	11	55.13	10.90		
<b>Semester average grade after help</b>	No assistance	164	53.04	21.38	17.373	.000
	<b>Coaching</b>	<b>46</b>	<b>71.30</b>	<b>6.82</b>		
	Another assistance	11	64.51	14.81		
<b>Average grade one semester later</b>	No assistance	156	53.41	18.90	18.300	.000
	<b>Coaching</b>	<b>46</b>	<b>70.73</b>	<b>11.13</b>		
	Another assistance	11	63.55	15.72		

The table reveals that students who took part in the Personal Academic Coaching Program managed to improve their average academic achievements to a state of satisfactory achievements, which allowed them to continue their studies. The group of students who received no help did not reach a satisfactory state, could not continue their studies, and dropped out. In contrast, students who received other treatments also managed to improve their average academic achievements, but not to a satisfactory level of achievement (more than 65); therefore, their chances to continue their studies were smaller.

### **III.1.2 Main Findings with Regard to the Second Research Question**

**Second research question:** What is the connection between self-efficacy, learning strategies, and students' academic achievements?

**Second research hypothesis:** The higher the students' sense of self-efficacy and the more improved learning strategies, the higher their academic achievements.



**Table 5: Pearson's correlation coefficient between research variables - after the coaching process**

Academic Achievements after Coaching	Learning Strategies	Self-Efficacy	
		.423**	Learning strategies
	.098	-0.41	Academic achievements at end of coaching
.377**	-.188	-0.56	Academic achievements at end of following semester

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

The findings show that there is a strong positive and significant correlation between self-efficacy and learning strategies variables, and a positive correlation between academic achievements after coaching and one semester later. In contrast, there is no correlation between academic achievements and self-efficacy, nor academic achievements and learning strategies.

## III.2 Qualitative Findings

### III.2.1 Main Findings from Student Interviews

The students who were asked to participate in an interview were told that the aim of the interview was to understand their perceptions of the Personal Academic Coaching process and whether it contributed to them in some way.

The interview started with an open-ended question that asked the students to describe the process of their joining in the coaching program from their point of view.

From an analysis of the students' interviews, a number of key findings emerged, which were divided into categories. After they were analyzed, a number of themes, comprising a concentration of categories, were chosen. These themes are presented with supporting examples.

Analysis of the interviews yielded three themes:

Theme No 1: Students' Emotional Aspects and Sense of Self-Efficacy

Theme No. 2: Students Expectations from Coaching

Theme No. 3: Perceptions of Coaching Results

Content analysis was performed and categories were built as described before.

Table 6 presents a summary of the themes and categories emerged in the content analysis with quotes from the interviews

**Table 6: Summary of student interviews**

<b>Students' Emotional Aspects and Sense of Self-Efficacy</b>		
<b>Before Coaching</b>		
<b>Sense of self-efficacy</b>	<b>Emotional and learning distress</b>	<b>Sense of alienation and uncertainty</b>
<i>"I came to the coaching academically unsatisfactory... I really felt that I apparently did not suit studying engineering"</i>	<i>"I was in a very difficult mental state and almost on the border of quitting my studies. I had problems everywhere and I felt as if everything was closing in on me"</i>	<i>"At the beginning, when I came to the College, the uncertainty into which I entered - everything was new and unclear to me, I felt directionless"</i>
<b>After Coaching</b>		
<b>Sense of Self-Efficacy After Coaching</b>		
<b>After a semester</b>	<b>After a year</b>	
<i>"It is a little better than before the coaching, but not enough. Of course, I wanted to feel much greater belief in myself..."</i>	<i>"Today I believe in myself much more" "Today I feel much calmer mentally and more secure in myself, and even if I fail, I am not stressed. I learn it again and I know I will succeed"</i>	
<b>During Coaching</b>		
<b>The coach's caring</b>	<b>Mental well-being</b>	<b>Experience of coaching process</b>
<i>"I think that in my coaching process the most important part was the emotional part, that the coach nourished me, listened to me, didn't judge me and gave me this space really helped me"</i>	<i>"From my point of view this was a new experience as I had never met anyone in this college who cared about me and makes me feel well" "</i>	<i>"My experience was very good. As I said before it was Mondays(the coaching day) that gave me the strength for the rest of the week"</i>
<b>Expectations of Coaching</b>		
<b>Before Coaching</b>	<b>After Coaching</b>	
<b>Expectations before Coaching</b>	<b>Student expectations during coaching</b>	<b>Student expectations after coaching</b>
<i>"I didn't really understand what this coaching was, but I was prepared to do anything just to succeed"</i>	<i>"During the coaching process, I expected to see quicker results and I didn't understand why it didn't happen"</i>	<i>"I would have expected a process like this to continue for at least one more semester in smaller dosages, maybe once a month" "I also think that it is important to link students with the same problems..."</i>
<b>Perceptions of Coaching Results</b>		
<b>After a Semester</b>	<b>After a Year</b>	
<b>Sense of Self-Efficacy</b>		
<i>" I know I can do more, but I have to learn to work and giving in to myself, but overall I am succeeding in my studies"</i>	<i>"I had a course this semester where I knew the material and I got 72, but I didn't give up and sat the exam again and got 85. I was confident that I know..."</i>	
<b>Self-Management</b>		
<b>Time management</b>	<b>Coping with tests</b>	
<i>"I prepare a weekly learning schedule the whole year, I make place for work and leisure- it's important for me that everything is written down and sorted"</i>	<i>"Coaching gave me the tools with which to cope with studies and how to prepare correctly for tests"</i>	

### Academic Achievements

*"Today, six months after coaching, I passed every test in those semesters and with very reasonable grades..."*

*"Currently I am finishing all courses without any fails, I already have an average of above 70"*

**In conclusion**, students talked about coaching results from a practical point of view and with positive feelings that accompanied them. Internalization of coaching results can be seen among students who underwent the coaching process a year before the interview, and their satisfaction with the process and results they experienced also expressed. Students reported changes and improvements in their self-efficacy and learning strategies such as self-management and time management, as well as a significant improvement in their academic achievements. Therefore, these findings correlate to the quantitative findings, which are analyzed in greater detail in the Discussion chapter.

**Finally**, an important issue raised by interviewees is the need to continue the communication with the lecturer-coach even after the coaching process..

### III.2.2 Main Findings from Lecturer-Coaches Interviews

At the same time as the interviews were carried out with coached students, semi-structured interviews were carried out with the lecturer-coaches who worked with the students. All lecturer-coaches were lecturers teaching different subjects within the framework of engineering studies. All these lecturers underwent a Personal Academic Coaching Course carried out by a well-known coaching school, certified in Israel, focusing on Personal Academic Coaching developed specifically for the college. The training process focused on the Six Stage Model developed by Dr. Kobi Kedem and Dr. Miri Shacham adjusted for coaching students.

Content analysis of interviews with lecturers-coaches yielded four main themes:

Theme No. 1: Lecturer-Coach's Responsibility

Theme No. 2: Emotional Aspects

Theme No. 3: Personal and Professional Awareness and Development

Theme No. 4: Expectations for the Future

These themes were analyzed and divided into categories as described in table 7.

#### Table 7: Summary of lecturer-coaches' interviews

### Responsibility

Responsibility towards the process		Responsibility towards students	
Use the Coaching Model novice coaches'	Use the Coaching Model expert coaches'	Responsibility for student goals	Responsibility for student success
<i>"I try very hard to stick to the model we learned. Otherwise, in my opinion, desired results will not be achieved"</i>	<i>"I work with stories, I work with cards, with questionnaires and with everything we learned"</i>	<i>"It is very important for me that a student will learn how to define goals and I really work with them on this until they succeed"</i>	<i>"To succeed is to break through some barriers that a student has-first to acknowledge that there is a barrier and also to understand and believe that he has the tools to deal with it .For me it is very important that they understand this and succeed"</i>
Emotional aspects			
Towards the coaching process		Towards students	
	Student success	Students' motivation	
<i>"I come to each coaching meeting with an open mind and open approach and my challenge is each time to learn again how to dance as if it is the first time. Every time I say to myself that my challenge is to dance the dance anew" "I really like the process, I have really enjoyed it for almost five years"</i>	<i>"First of all, I think that an important thing from my point of view in coaching is what it gives to a student, in my eyes it is important and very moving when a student sees himself as succeeding and taking off afterwards is important" In contrast to another case: "There are those who come mainly as survival because they come to us in a real state of survival and it really hurts me to see them like that"</i>	<i>"Sometimes I have questions about a coachee's motivation, maybe they think that they are being judged according to whether they are in coaching or not, and then I have a problem" "In coaching, sometimes I see that it is really difficult to move them. A lot of time passes before they understand the importance of the process at all and I find this difficult"</i>	
Awareness and Personal Well-being			
Enhance Personal Well-being (Self)		Improve Teaching	
Novice Lecturer	Expert Lecturer	Novice Lecturer	Expert Lecturer
<i>"I feel I went through a change during the course. Sometimes I look at myself with a different eye" "I still cannot pat myself on the back and say to myself, 'nice, I'm good'. I still don't feel that I am there, but I feel that I am going through a change myself"</i>	<i>"I learned so much about myself, I think that only through such coaching does a person learn like this about himself" "I feel that the course and coaching processes contributed so much to me, I changed my approach Before being a coach, everything was problem - solution, problem- solution as an engineer and today I take it to another world and therefore it is easier for me to understand the students and be their mentor"</i>	<i>"I definitely think that I have really improved even as a lecturer in class, in my attentiveness to and judgment of students" "I feel suddenly that I acquired the ability to listen-often I hear students' stories that help me notice"</i>	<i>"Since I began coaching five years ago, my presence in class and with students is more real and strong" "The coaching process contributed to my understanding of the group dynamics, helps me as a coach, and I became a mentor and a guide. Dialogue with students in class improved."</i>
Expectations for the Future			
Expectations for Self-Development	Expectations for Coachees	Giving Coaching to all Lecturers	
<i>"I think the course was excellent. I miss it continuing. I miss going up a</i>	<i>"In the next semester, there should be a meeting once a month or every two</i>	<i>"I think that a course like this contributes to everyone and especially</i>	

<p><i>level, another course level"</i>  <i>"I want more training to deepen my knowledge, to have more meetings to remind us of the material"</i></p>	<p><i>months, before any significant stage"</i>  <i>"Even when students have completed the coaching process they come to consult in the following semester and to continue to practice. It shows that they understand the importance of the coaching process and it is important that they have an address to turn to"</i></p>	<p><i>to lecturers, whether or not they become coaches, to be more tolerant, more attentive"</i>    <i>"In my opinion, it is important that every lecturer at the college should attend the course even if they do not want to be coaches I think it helps better understand students, better understand ourselves and our behaviors"</i></p>
--	--	---

**To conclude**, most lecturer-coaches expressed their wish that all lecturers undergo in a coaching course, which according to their experience, can positively influence their relationships with students and their teaching skills

## **CHAPTER V: RESEARCH DISCUSSION**

The research findings show that the Personal Academic Coaching Prograam as a short term and focused process, can lead to academic success of engineering students in their first year of study.

The research findings support previous studies which found that personal coaching leads to higher levels of coachees' self-efficacy, e.g. Goker's (2006) study in which the effect of coaching on the self-efficacy of student teachers was proven. So, too, research by Passmore and Brown (2009) and Gould (2007) showed a significant increase in levels of self-efficacy, realizing potential and improving self-confidence in pupils examined.

These findings also support previous research findings regarding the effect of personal coaching on learning strategies (Barkley, 2011; Campbell & Gardner, 2005; Coddington & Merriman, 2008; Grant, 2009; Griffith, 2005), which found that personal coaching effectively promotes learning strategies, improves relationships, and builds long-term goals among students, compared to traditional learning. It was also found that personal coaching improved learning strategies and self-efficacy when it was a stated goal of the process. According to Griffith (2005) it is important to include in the coaching process the rationale for an effective learning model emphasizing the process of defining goals.

These findings support previous studies which argue that academic coaching improves students' academic performance (Campbell & Gardner, 2005) by improving their emotional well-being. It was found that coaching contributed to improving pupils' academic achievements (Passmore & Brown, 2009). Berkeley (2011) presented research finding in which academic coaching led to higher education levels, improved academic performance, and improved relationships between teachers and pupils

**In light of the discussion of the findings, one can learn about the factors taking part in the personal coaching process** both with regard to coaching tools and coaching results. This can be seen in Figure 5, which illustrates the various factors in the current research.



**Figure 5: Aspects of the Personal Academic Coaching process**

Self-efficacy is a result of assimilating success, encouragement from the surroundings, and learning from meaningful groups (Bandura, 1977). In the current research, self-efficacy increased as a result of the Personal Academic Coaching process, focusing on strengths as impetus for learning and on coaches' support and communication. Moreover, improving capabilities, nourishing itself after students'

every 'brave act' and success, was identified to affect assimilation of the students' practiced thinking both during the coaching process and afterwards when students continue to manage independently. In addition, learning strategies constitute a basis for advancement and include self-management, time management, and effective strategies for dealing with stress. These coaching tools lead to an improvement in students' metacognition, which in turn lead to higher academic achievements (Ruffing et al., 2015). Improved academic achievements create a sense of self-efficacy and help to improve learning strategies and meta-cognition. Thus, the process is a multi-directional spiral process. Creating a safe framework supports a process that integrates safe coach-coachee relationships and includes emphasis on producing challenges for coachees and recruiting them to achieve their goals. In addition, progress in the coaching process depends to a large extent on coach-coachee relationships combined with coachees' meta-cognitive abilities and the ability of coaches to provide feedback on the coaching process.

The findings lead to the conclusion that Personal Academic Coaching leads to a significant improvement in students' learning strategies and levels of self-efficacy as well as improvements in students' academic achievements.

It must be emphasized that this Personal Academic Coaching program, seeking to decrease dropout rates at the end of the first year of academic engineering studies, and to raise students' achievements, is a program that exists at this specific college and requires a considerable investment of financial resources for funding lecturers' coaches' wages.

The college's board regards this program to be a significant program that promotes equal opportunities in engineering education in the periphery in Israel, and contributes to the institution's academic reputation as one that is concerned about the students' success, investing in them to advance their learning.

Moreover, it can be seen that using the Six Stage Model in a Personal Academic Coaching process leads to improvement in all three examined parameters. In light of all this, it can be said that employing this model in the coaching process combined with students' desire to succeed whilst building learning responsibility, leads students to be **effective independent learners** who have improved their learning strategies and

meta-cognitive levels over time and possess high levels of self-efficacy. All these bring students learning success at the end of the process.

## **CHAPTER VI: CONCLUSIONS**

### **Factual Conclusions**

**According to the research findings, Personal Academic Coaching improved the self-efficacy, learning strategies, and academic achievements of Israeli engineering students whose academic status was unsatisfactory**

The contribution of this research is in proving that Personal Academic Coaching Program, prevents students from dropping out in their first years of study and achieves the aim for which the program was developed

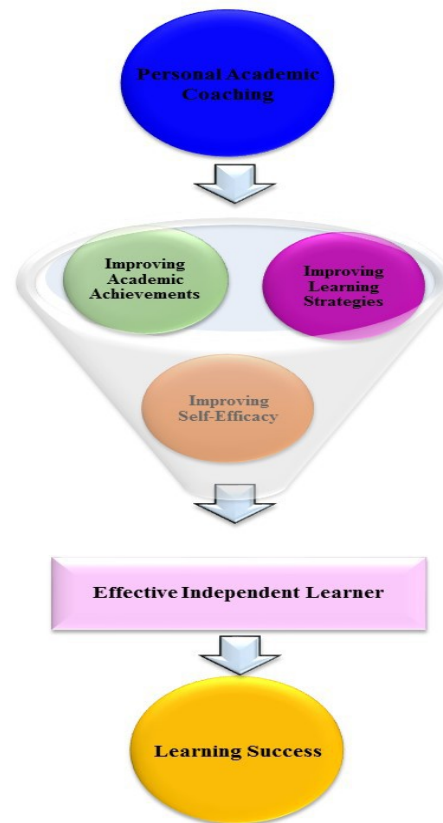
### **Conceptual Conclusions**

- ✓ Combining the principles of positive psychology and its outcomes in a clear manner both in training coaches and in the Personal Academic Coaching is significant to the program success
- ✓ The more space given to strengthening and improving students' self-efficacy levels in a coaching process, the better students are able to cope with diverse learning challenges.
- ✓ The findings lead to the conclusion that correct use of the Six-Stage Model during Personal Academic Coaching together with various coaching methods deriving from professional and personal experience, can constitute a sound basis for the success of the Personal Academic Coaching Program
- ✓ Another conclusion emerging from the discussion is that this model is suitable for application in educational institutions during students' first year of study, so that they can use the model from the outset, without waiting for unsatisfactory academic status to arise.
- ✓ The research results deepened understanding of coach-coachee relationships, which helped students cope with their sense of loneliness and alienation in their first year of study.



- ✓ The contribution to lecturers is in both the personal and professional areas.

Figure 6 presents a model that describes the process that students who come to the Personal Academic Coaching go through and the results they can derive from it.



**Figure 6: Personal Academic Coaching Model**

### **Universal Contribution to Knowledge**

- ✓ **Theoretical perspective**

The results deepened understanding with regard to the contribution of this new Personal Academic Coaching Program to engineering students and to their lecturer-coaches

- ✓ **Practical point of view**

Findings help understand how to reduce dropout rates in the first year of engineering studies.

This understanding has practical implications in that the personal coaching process can spread to other colleges in Israel and around the world, based on empirical knowledge.

### **Research Boundaries**

The research was carried out between 2014 and 2016 at an engineering college in Israel and included 46 engineering students whose academic status unsatisfactory in their first year of study. Its main limitation is that the program is only implemented in this one college.

However, this is innovative in that it enables new insights regarding promoting academic success of students in their first year of engineering studies. The dropout issue in the first year of engineering studies is universal and this research contributes to developing similar Personal Academic Coaching Program at colleges and universities around the world, so as to improve students' self-efficacy, strengthen their learning strategies, and enable them to succeed by improving their learning achievements.

### **Recommendations**

- ✓ To examine practical ways of helping students cope with their sense of alienation and loneliness, as well as to prevent dropout
  - ✓ To give lecturer-coaches “maintenance” and supervision sessions
  - ✓ To widen the program to include students BEFORE they reach academic failures
- ✓ To provide this training program to more lecturers and thus contribute to the quality of lecturers as mentors to students in the academic institution
- ✓ To adopt Personal Academic Coaching for students by branding coaching as a tool serving academic needs

**I believe that coaching is an invaluable tool in the academic process. It helps the students reach their hidden potential and helps the lecturers maximize their teaching vision.**

*Your attitude, not your aptitude, will determine your altitude will determine your altitude  
("Zig" Ziglar*

## References

Baban A., (2007). Changing health-risk behaviors: a review of theory and evidence-based interventions in health psychology. *Journal of Cognitive and Behavioural Psychotherapies*, 7, 1, pp. 45 - 66.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.

Bandura, A. (2006). Toward a psychology of human agency. *Perspectives on Psychological Science*, 1(2), 164–180.

Barkley, A. (2011). Academic coaching for enhanced learning. *Nacta Journal*, 51(1), 76-81.

Bartlett, J. E. (2007). Advances in coaching practices: A humanistic approach to coach and client roles. *Journal of Business Research*, 60(1), 91-93.

Blanchard, E., & Frasson, C. (2006, June). Easy creation of game-like virtual learning environments. In Workshop on Teaching with Agents, Robots, and NIP at ITS (Vol. 2006).

Campbell, M., & Gardner, S. (2005). A pilot study to assess the effects of life coaching with year 12 students. In: M. Cavanagh, A.M. Grant, & T. Kemp (Eds.), *Evidence Based Coaching: Volume 1 Theory, Research and Practice from the Behavioural Sciences*. (pp. 159\_170) Bowen Hills, Queensland: Australian Academic Press.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE Publications, Incorporated.

Creswell, J. W. (2011). Controversies in mixed methods research. *The Sage handbook of qualitative research*, 4, 269-284.

Creswell, J. W., Klassen, A. C., Plano Clark, V. L., & Smith, K. C. (2011). Best practices for mixed methods research in the health sciences. *Bethesda (Maryland): National Institutes of Health*, 2094-2103.

Creswell, J. W., & Plano Clark, V. L., (2011). *Designing and Conducting Mixed Methods Research* (2nd Ed.) Thousand Oaks, Ca: Sage.

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications

Douglas, C. A. & McCauley, C. D., 1999. Formal Developmental Relationships: A survey of organizational practice. *Human Resource Development Quarterly*, 10(3), pp. 203-220

Eisenstadt, M., Kacen, L., Krumer-Nevo, M. Mashiach, R.T., Spector Marzel, G. (2010). Data Analysis in Qualitative Research. Beersheva: Ben Gurion University (In Hebrew)

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive developmental inquiry. *American Psychologist*, 34, 906-911.

Frankl, V. (1970). Man's Search for Meaning: from the Death Camps to Existentialism. Tel Aviv: Dvir (In Hebrew).

Freeman, A. (2016). Life Coaching from an Evidence-Based Perspective: An Interview with Oana David. *Journal of Evidence-Based Psychotherapies*, 16(1), 79.

Friedman. I. (2012). *Validity in Measurement and in Evaluation Research*. Jerusalem: Szold Institute.

Garcia, T., & Pintrich, P. R. (1993, April). *Self-Schemas, Motivational Strategies and Self-Regulated Learning*. Paper presented at the meeting of the American Educational Research Association, Atlanta, GA

Goker, S. D. (2006). Impact of peer coaching on self-efficacy and instructional skills in TEFL teacher education. *System*, 34(2), 239-254

Grant, A.M. (2003). The impact of life coaching on goal attainment, metacognition and mental health. *Social Behavior and Personality*, 31, 253-264.

Grant, A. M., (2006). A personal perspective on professional coaching and development of coaching. *International Coaching Psychology Review*, 1(1), 12-22.

Grant, A. M., Curtayne, L., & Burton, G. (2009). Executive coaching enhances goal attainment, resilience and workplace well-being: A randomised controlled study. *The Journal of Positive Psychology*, 4(5), 396-407

Green, S., Grant, A., & Rynsaardt, J. (2007). Evidence-based life coaching for senior high school students: Building hardiness and hope. *International Coaching Psychology Review*, 2(1), 24-32

Green, L. S., Oades, L. G. & Grant, A. M. (2006). Cognitive behavioral, solution - focused life coaching: enhancing goal striving, well-being and hope. *Journal of Positive Psychology*, 1(3), pp. 142-149

Green, L. S., & Norrish, J. M. (2013). Enhancing well-being in adolescents: Positive psychology and coaching psychology interventions in schools. In *Research, applications, and interventions for children and adolescents* (pp. 211-222). Springer Netherlands.

Griffiths, K. E. (2005). Personal-academic coaching: A model for effective learning. *Journal of Learning Design*, 1(2), 55-65

Hanson, W. E., Creswell, J. W., Creswell, J. D., Plano, V. L., & Petska, K. S., (2005). Mixed methods research in counseling psychology. *Journal of Counseling Psychology*, 52, 2, pp. 224-235

Harrison, L. (2005). Political Research. Ra'anana: Open university, pp. 11 – 25; 50 – 55 (In Hebrew).

Henriques, P. L., Curado, C., & Matos, P. V. (2017). The warmth seed: long-term fruits of coaching. *Coaching: An International Journal of Theory, Research and Practice*, 10(1), 66-81

Jackson, J. F., & Moore, J. L. (2006). African American males in education: Endangered or ignored? *Teachers College Record*, 108(2), 201.

Jones, B. & Frydenberg, E. (2000). Coping with transition: A case for providing resources to first year university students. *Australian Journal of Guidance and Counseling*, 10, 81-93.

Joseph, S. & Worsley, R. (2007). Person-centred practice and positive psychology: Crossing the bridges between disciplines. In S. Joseph & R. Worsley (Eds.), *Personcentered Practice: Case Studies in Positive Psychology* (pp. 218-223). Ross-on-Wye, England: PCCS Books.

Knight, J., Elford, M., Hock, M., Dunekack, D., Bradley, B., Deshler, D. D., & Knight, D. (2015). 3 Steps to Great Coaching: A Simple but Powerful Instructional Coaching Cycle Nets Results. *Journal of Staff Development*, 36(1), 10.

Leech, N. L., & Onwuegbuzie, A. J. (2007). An array of qualitative data analysis tools: A call for data analysis triangulation. *School psychology quarterly*, 22(4), 557.

Lindley, L. D. (2006). The paradox of self-efficacy: Research with diverse populations. *Journal of Career Assessment*, 14(1), 143-160.

Marshall, S. (2016). Predicting College Students' Positive Psychology Associated Traits with Executive Functioning Dimensions. *College Student Journal*, 50(2), 179-190.

Maslow, A. H., & Rogers, C. (1979). Humanistic psychology. *Journal of Humanistic Psychology*, 19(3), 13-26

Merriman, D. E., & Coddling, R. S. (2008). The effects of coaching on mathematics homework completion and accuracy of high school students with attention-deficit/hyperactivity disorder. *Journal of Behavioral Education*, 17(4), 339-355.

Passmore, J., & Brown, A. (2009). Coaching non-adult students for enhanced examination performance: a longitudinal study. *Coaching: An International Journal of Theory, Research and Practice*, 2(1), 54-64.

Rogers, C. R. (1951). *Client-centered Therapy: Its Current Practice, Implications and Theory*. Boston, MA: Houghton Mifflin.

Rolo, C., & Gould, D. (2007). An Intervention for fostering hope, athletics and academic performance in university student athletes. *International Coaching Psychology Review*, 2(1), 44-61

Ruffing, S., Hahn, E., Spinath, F. M., Brünken, R., & Karbach, J. (2015). Predicting students' learning strategies: the contribution of chronotype over personality. *Personality and Individual Differences*, 85, 199-204.

Schwarzer, R., (2008). Modeling health behavior change: how to predict and modify the adoption and maintenance of health behaviors. *Applied Psychology: An International Review*, 57, pp. 1-2.

Seligman, M. E. (2007). Coaching and positive psychology. *Australian Psychologist*, 42(4), 266-267.

Seligman, M.E., Steen, T. A., Park, N. & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychologist*, 60, 410 – 421.

Shkedi, A., (2011). The Meaning behind the Words- Methodologies in research from Theory to Practice. Ramot: Tel Aviv University.

Shkedi, A., (2014). Qualitative Data Analysis. **Contento De Semrik**.

Stelter, R. (2007). Coaching: A process of personal and social meaning making. *International Coaching Psychology Review*, 2(2), 191-201.

Stelter, R., Law, H., Alle, N., Campus, S., & Lane, W. (2010). Coaching–narrative collaborative practice. *International Coaching Psychology Review*, 5, 152-164. Retrieved from Search Complete Academic (Accession No. 52596362).

Stelter, R. (2013). *A guide to third generation coaching: Narrative-collaborative theory and practice*. Springer Science & Business Media.

Tee, S. R., Jowett, R. M., & Bechelet-Carter, C. (2009). Evaluation study to ascertain the impact of the clinical academic coaching role for enhancing student learning experience within a clinical masters education programme. *Nurse education in practice*, 9(6), 377-382.

Tzabar Ben-Yehoshua, N. (2016). Traditions and Genres in Qualitative Research, Perceptions, Strategies and Advanced Tools. Tel Aviv: Mofet Institute (In Hebrew)

Weber, R. P. (1990). *Basic content analysis* (No. 49). Sage

Witherspoon, R., & White, R.P. (1996). Executive coaching: A continuum of roles. *Consulting Psychology Journal: Practice and Research*, 48, 124-1