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**JARJOURA BASMA**

**THE INFLUENCE OF THE PSYCHO-SOCIAL AND  
PEDAGOGICAL CONTEXT ON LEARNING MOTIVATION OF  
ARAB FUTURE TEACHERS IN ARAB AND MIXED  
COLLEGES FROM ISRAEL**

**Specialty 533.01- Higher Education Pedagogy**

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Supervised:

**Maia Şevciuc**, doctor in pedagogy,  
Associate Professor

Author:

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**JARJOURA BASMA**

**INFLUENȚA CONTEXTULUI PSIHOSOCIAL ȘI PEDAGOGIC  
ASUPRA MOTIVAȚIEI ÎNVĂȚĂRII LA STUDENȚII ARABI,  
VIITOARE CADRE DIDACTICE, ÎN COLEGIILE ARABE ȘI  
MIXTE DIN ISRAEL**

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Conducător științific:

**Șevciuc Maia**, doctor în pedagogie,  
conferențiar universitar

Autor:

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## ANNOTATION

**Jarjoura Basma, „*The influence of the psycho-social and pedagogical context on learning motivation of Arab future teachers in Arab and mixed colleges from Israel*”**

**Doctoral Thesis in Pedagogy, Chişinău, 2016**

**Thesis structure:** introduction, three chapters, conclusions and recommendations, bibliography -221 titles, 8 appendixes, 175 pages basic text, 22 figures, 26 tables. The main content of the thesis is published in 6 scientific publications and 3 scientific conferences.

**Keywords:** Learning motivation, autonomous motivation, controlled motivation, self-determination theory (SDT), Arab future teachers, Arab colleges, mixed colleges, Department of Special Education.

**The research domain:** refers to Higher Education Pedagogy.

**The aim of the research** is the theoretical and methodological foundation of the influence of the psycho-social and pedagogical context on learning motivation of Arab future teachers in Arab and mixed colleges from Israel.

**The research objectives are to:** (1) Analyze the conceptual dimension of the learning context to Arab future teachers; (2) Approach the theoretical framework of the learning motivation development; (3) Identify the initial level of development of learning motivation (autonomous and controlled) from Arab future teachers from Arab and mixed college; (4) Determine the relation between learning context and the learning motivation of Arab future teachers; (5) Develop and validate experimentally the Learning Motivation Development Program for Arab future teachers.

**The scientific novelty and originality of the research:** through the theoretical-experimental research process the concepts of motivation and learning motivation were actualized; The particularities of autonomous and controlled motivation of Arab future teachers depending on the psychosocial and pedagogical context of learning (Arab and mixed colleges) were established; An Intervention Program for developing Arab future teachers' autonomous learning motivation was developed.

**The scientific problem solved in research** consists in the theoretical and methodological foundation of developing the learning motivation to Arab future teachers by enhancing the value of the psycho-social and pedagogical learning context that contributed to the improvement of initial training of the Arab students in the educational field.

**The theoretical value of the research** refers to the theoretical foundation of the learning context in the initial training of the Arab future teachers, focusing on the psychosocial and pedagogical dimension, especially on:

- Approaching the Arab future teachers' learning motivation from two different college types (Arab and mixed colleges) as a dimension of the efficient initial professional training;
- Valuing Self-Determination Theory in the professional training of Arab future teachers in Israel depending on the psychosocial and pedagogical context of learning and teaching.

**The applicative value of the research** is determined by experimental implementation of the Intervention Program focused on the development of the autonomous learning motivation among Arab future teachers in Israel; by highlighting the educational and professional initial training of the Arab future teachers in the basis of the elaborated Program focused on psychosocial and pedagogical dimension of learning; the elaborated Program could serve as a model to other intervention programs in order to develop the learning motivation to future teachers in general, and to Arab future teachers in particular.

**Implementation of scientific results** was conducted based on experimental research and through presentations at international scientific conferences, scientific publications and practical activities involving future teachers.

## ADNOTARE

**Jarjoura Basma, „Influența contextului psihosocial și pedagogic asupra motivației învățării la studenții arabi, viitoare cadre didactice, în colegiile arabe și mixte din Israel”,  
Teză de doctor în pedagogie, Chișinău, 2016**

**Structura tezei:** introducere, trei capitole, concluzii generale și recomandări, bibliografie din 221 titluri, 6 anexe, 175 de pagini text de bază, 22 figuri, 26 tabele. Conținutul principal al tezei este reflectat în 6 lucrări științifice și 3 conferințe științifice.

**Cuvinte cheie:** motivația învățării, motivația intrinsecă, motivația extrinsecă, teoria autodeterminării (TSD), studenți arabi, colegii arabe, colegii mixte.

**Domeniul de cercetare:** Pedagogia universitară

**Scopul cercetării** constă în fundamentarea teoretică și metodologică a influenței contextului psihosocial și pedagogic al învățării asupra motivației la studenții arabi, viitoare cadre didactice în colegiile arabe și mixte din Israel.

**Obiectivele de cercetare:** (1) analiza cadrului teoretic al dezvoltării motivației învățării; (2) analiza dimensiunii conceptuale a contextului de învățare la studenții arabi; (3) identificarea nivelului inițial al dezvoltării motivației învățării (autonome și controlate) la studenții arabi din colegii arabe și mixte; (4) determinarea relației dintre contextul de învățare și motivația învățării la studenții arabi; (5) elaborarea și validarea experimentală a Programului de dezvoltare a motivației învățării la studenții arabi, viitoare cadre didactice pentru învățământul special.

**Noutatea și originalitatea științifică a cercetării** este obiectivată de actualizarea conceptelor de motivație și motivație a învățării; fundamentarea teoretică a particularităților motivației autonome și controlate în funcție de contextul psihosocial și pedagogic al învățării studenților arabi din colegii arabe și mixte; elaborarea Programului de intervenție de dezvoltare a motivației autonome de învățare la studenții arabi, viitoare cadre didactice.

**Problema științifică importantă soluționată în domeniu** constă în fundamentarea reperelor teoretice și metodologice de formare a motivației învățării la studenții arabi prin valorificarea contextului psihosocial și pedagogic, care au contribuit la eficientizarea pregătirii profesionale inițiale a studenților arabi în domeniul educațional.

**Semnificația teoretică a cercetării** constă în fundamentarea teoretică a contextului de învățare în formarea profesională inițială a studenților arabi din Israel, cu accent pe dimensiunea psihosocială și pedagogică susținută de:

- abordarea motivației învățării a studenților arabi din Israel din diferite medii educaționale (colegii arabe și mixte), ca dimensiune a eficienței formării profesionale inițiale;
- valorificarea teoriei auto-determinării în formarea profesională a studenților arabi din Israel în funcție de contextul psihosocial și pedagogic al învățării.

**Valoarea aplicativă a cercetării** constă în implementarea Programului de intervenție experimental, axat pe dezvoltarea motivației autonome de învățare a studenților arabi din Israel; conturarea, în baza Programului elaborat, cu accent pe dimensiunea psihosocială și pedagogică a învățării, a traseului educațional și de formare profesională inițială a studenților arabi, ca și comunitate minoritară din Israel. Programul elaborat poate servi drept model pentru alte programe de intervenție, în vederea dezvoltării motivației învățării la studenți, în general, și la studenții arabi viitoare cadre didactice, în particular.

**Implementarea rezultatelor cercetării** s-a realizat în baza cercetării experimentale; prin comunicări la conferințe științifice internaționale, publicațiilor științifice, a activităților practice cu studenții, viitoare cadre didactice.

## АННОТАЦИЯ

**Жаржоура Басма, «Влияние психосоциального и педагогического контекста на мотивацию обучения у арабских студентов будущих учителей из арабских и смешанных колледжей Израиля»**

**Диссертация на соискание ученой степени доктора педагогических наук, Кишинэу, 2016**

**Структура диссертации:** введение, три главы, общие выводы и рекомендации, библиография из 221 источников, 8 приложений, 175 страниц основного текста, 22 рисунков, 26 таблиц. Результаты исследования опубликованы в 9 научных работах.

**Ключевые слова:** мотивация обучения, внутренняя мотивация, внешняя мотивация, Теория самоопределения, арабские студенты, арабские колледжи, смешанные колледжи.

**Область исследования** относится к педагогике высшего образования.

**Цель исследования** заключается в теоретическом и методологическом обосновании влияния психосоциального и педагогического контекста на мотивацию обучения у арабских студентов, будущих учителей из арабских и смешанных колледжей Израиля.

**Задачи исследования:** (1) рассмотреть концептуальные аспекты контекста обучения арабских студентов; (2) проанализировать теоретические подходы к исследованию развития мотивации обучения; (3) выявить первичный уровень развития мотивации обучения (внутренней и внешней) у арабских студентов из арабских и смешанных колледжей; (4) выявить связь между контекстом обучения и мотивацией обучения у арабских студентов; (5) разработать и экспериментально апробировать Программу развития мотивации обучения у арабских студентов, будущих учителей.

**Научная новизна и оригинальность исследования** заключается в актуализации понятий мотивация и мотивация обучения; теоретическом обосновании особенности внутренней и внешней мотивации в зависимости от психо-социального и педагогического контекста обучения арабских студентов из арабских и смешанных колледжей; разработки Программы развития внутренней мотивации обучения у арабских студентов.

**Научная проблема, решенная в данном исследовании** заключается в обосновании теоретических и методологических основ развития мотивации обучения у арабских студентов учитывая психосоциальный и педагогический контекст обучения, что способствовало более эффективной профессиональной подготовке арабских студентов в области образования.

**Теоретическая значимость исследования** заключается в теоретическом обосновании контекста обучения в профессиональном формировании арабских студентов из Израиля, в зависимости от психосоциального и педагогического контекста основываясь на: рассмотрение мотивации обучения арабских студентов из Израиля с точки зрения образовательной среды (арабских и смешанных колледжей), как основы эффективности начального профессионального формирования; рассмотрение теории самоопределения в начальном профессиональном формировании арабских студентов из Израиля в зависимости от психо-социального и педагогического контекста обучения.

**Практическая значимость исследования** обусловлена внедрением Программы развития мотивации обучения у арабских студентов, основываясь на развитии внутренней мотивации обучения; определение, в зависимости от разработанной программы с учетом психосоциального и педагогического контекста обучения, более эффективного направления начального профессионального формирования арабских студентов, будущих учителей как миноритарного сообщества Израиля. Разработанная Программа может служить моделью развития мотивации обучения студентов в целом и у арабских студентов будущих учителей, в частности.

**Внедрение результатов** исследования осуществлялась в реальной образовательной практике, они были обсуждены на научных конференциях, а также были представлены в научных публикациях.



## **LIST OF ABBREVIATIONS**

**SDT**- Self-Determination Theory;

**PN** - Psychological Needs;

**CCSE** - Choosing the College Type and the Department of Special Education;

**FG** - Focus Group;

**FG<sub>s</sub>** - Focus Groups.

## INTRODUCTION

**The actuality and the importance of the addressed problem:** In recent years there has been an increase in the awareness of the contribution of raising students' learning motivation on their success. Motivation affects students' attitude, ability to cope with pressure and satisfaction from their studies [32]. This interest has given rise to a large amount of research that aimed to shed light on various theories of motivation and its components, in order to expand the understanding of the concept and consequently to make it possible to increase motivation among students [153; 170].

College student learning motivation is a consistent problem at all levels of post-secondary education. Faculty and staff at colleges, in private and public universities all sigh on the lack of student learning motivation [146, p. 731]. College faculty staff question the students' carelessness about their work, their lack of curiosity in the disciplinary content of the courses, and the importance they give to grades but not to learning process. Students seem to lack the desire to study or to try very hard, postponing their studying to the last minute before an examination or starting to write a paper the day before it is due. Neither they are organized enough to be able to plan their work in an efficient way, nor they learn how to achieve high quality performance. Late arrival to class, absence from lessons, boredom, non-satisfaction and complaints, low grades and lack of persistence, all being common elements of their behavior, reflecting their lack of desire to study [32, p.75; 146, p. 731-732]. This can have deep implications on the students' eventual contribution as teachers in the school system.

As a lecturer and pedagogical supervisor at the Departments of Special Education in an Israeli Arab college and mixed college of education, I have extensive interaction with the students of these departments. Based on my own experience and that of my colleagues, there is an obvious need for developing insights regarding the effect of the psychosocial and pedagogical learning context on Arab future teachers' learning motivation. Most of the Arab students reach higher education at age 18, right after high school. They are younger than the Jewish students which are also more experienced and much more confident, especially after military service. Most of the young Arab students face psychosocial difficulty of moving from a closed and differentiated Arabic village or town to college. They usually lack the knowledge and find difficulty to consult or ask for support. Some lose confidence and make mistakes in choosing college and specific department - which lead to changes in the domain of the academic specialty, thus lengthening the studying period and therefore increasing the probability for dropping out of college [112]. First year is very difficult for them to even orientate in the physical space of the

college, difficulty to find their classes, they are depressed and experience easily unpleasant emotional feelings for simple reasons. In addition they have difficulties to make decisions independently; they call their parents to consult on any matter [140; 186]. Furthermore, nearly all of these students start teaching in Arab schools if they find a job opportunity (due to excess of Arab graduates from colleges of education). During the first years of a teacher's school entry, his or her role is particularly difficult due to the existing organization and education related difficulties in Arab schools. In the context of the difficult and complex reality of Arab schools, new teachers often struggle for survival in the education system, dealing with feelings of frustration, helplessness, disappointment and loneliness. Choosing the teaching profession as the only employment opportunity, accompanied by the negative feelings discussed above, increases their frustration, having strong implications for their performance and contribution in the school system [28; 108].

**Description of the state of the art and the research gaps:** The Israeli-Arab society comprises nearly 20% of the population in Israel [169]. Arabs are an indigenous minority in Israel. This minority include Muslims, Christians and Druze. Arab students comprise 25% of the students in all Israeli education systems, and in teachers' training colleges they make up more than 30% of the students (future teachers) in teachers' colleges in Israel. In spite of the growing public interest in evaluating teacher training institutions in Israel, the performance of Arab future teachers in teacher training programs remains understudied compared to Jewish students [29].

There is clearly a renewed interest surrounding the study of motivation [110]. Many international researches concentrated on motivation in educational settings [e.g., 53; 69; 81; 83; 85; 94; 95; 120; 146; 153; 189; 190; 201; 208; 210; 217]. But so far, literature specifically specializing in issues related to teacher training in Israel less frequently engages the Arab future teachers and the institutions they attend. In the context of the Arab teacher training, literature has been discussing issues such as the attitudes and expectations of Arab trainees; Jewish-Arab relations and multicultural education, challenges in higher education, motivation in choosing the teaching profession, achievement and academic performance, and difficulties of new teachers [e.g. 31; 48; 70; 72; 73; 98; 108; 127; 172; 185; 186; 187]. Very few studies focused on topics related to motivation, for example, Peleg & Raslan [140] studied the evaluation of teacher training of minorities also in a mixed college. Saada [159] studied the self-regulated learning and teacher self-efficacy among students of education in Arab colleges. Later on, Saada [160] studied the relationship between self-esteem and motivational orientation in learning among Arab adolescents' students in Israel. Totri [186] studied the needs of Arab future teachers in a teaching training college and the absorption level in a mixed college. Boimel and his colleagues [54]

studied the topic "what do Jewish and Arab students learn from each other?". Most of these studies have focused on pedagogical, cultural and policy issues within the colleges and their action in the field of education and less on the effect of these conditions on the students' learning motivation.

To my best knowledge, the only study conducted in Israel that questioned directly the motivation of Arab future teachers was published by Agbaria [32]. Agbaria examined the correlation between self-efficacy and the extent of participation in choosing the teaching profession as predictors of academic motivation, but the study was done in one Arab college and among Muslim Arab female students only. Moreover, the few studies that focused on topics related to motivation have considered the Arab students as a homogeneous group, and did not distinguish between those who learn in Arab colleges and those who learn in mixed colleges. This study examined issues that so far have not received enough attention, despite unique ethnic and cultural characteristics of the Arab minority in Israel. This study attempts to gain insight into the Arab future teachers' learning motivation, and shed light on the learning procedure taking place within the confines of the Arab and mixed colleges psychosocially and pedagogically, from the perspective of the Arab future teachers participating in the study.

In the past there was only one Arab teacher training college for Arab students. Recently, Arab students are increasingly turning to Jewish Colleges [31; 140, p.117]. In the last decade, and particularly during the past educational 1997-1998, and until 2007 -2008, the number of Arab students' number has increased from 3,619 to 6,154, an increase of 70%. During these years, the number of Arab future teachers in Arab academic teacher training colleges has increased by 33.4% (from 2,119 to 2,827), while the number of Arab future teachers at the Jewish colleges dramatically increased by up to 121,8%. For the first time, the number of Arab future teachers in Jewish colleges including the Arab tracks in these colleges was higher than the number of Arab future teachers in Arab colleges itself. Until the year 2007-2008, 54% Arab student studied at Jewish academic teacher training colleges parallel to 46% in Arab colleges. This preference of Arab future teachers to study in Jewish colleges can be attributed to two reasons: The first relates to the fact that the Jewish colleges propose to the Arab future teachers to learn in Arabic language in special tracks for Arab future teachers. Thus, Jewish colleges propose to the student learning in two languages, in Hebrew through regular tracks (where Jewish students learn), and in Arabic within the special tracks for the Arabs (and where Arab students learn only). This feature in Jewish colleges increases the intensity of competition between the former teacher training and those Arabic tracks, which proposes studying only in Arabic. These tracks aim for the preparation of Arab teachers in Jewish colleges, according to

the definition and guidance of the Ministry of Education, to prepare students specific segments of the population in the Arab community, and especially Bedouin and Druze. It seems like this enhances the force of attraction, besides tracks intended for students of these segments, so as to privacy considerations, such as cultural or for geographical proximity reasons. The second reason regards interest of Hebrew education colleges in finding inner balance in light of the decline in the number of registered Jews [31].

Arab future teachers who graduate from mixed colleges teach in Arab schools, and they have to make the translation, transformation and adaptation of their learning content by themselves [140, p. 108]. It seems that the process of training Arab teachers, in Arab and mixed colleges of education, still needs to invest more efforts to provide the future Arab teacher with the essential tools to deal with the complex reality of the cultural and national uniqueness in Israel. This reality is experienced by half a million Arab students living in a society undergoing continuous changes that are often quite dramatic.

As is the case in most other areas of life in Israel, in education as well as in teacher training, Arab researchers and education leaders are systematically excluded from the policy and decision-making processes [29]. Arab future teachers in Arab and mixed colleges go through different socialization process: academically, pedagogically, psychosocially and linguistically. Therefore there is an obvious need for developing insights regarding the effect of the learning context dimensions on their learning motivation [113]. At both types of colleges participating in this proposed study, the lack of motivation in general, and in the intrinsic motivation specifically seems to be similar to that described in previous studies [32, p.75; 146, p. 731-732].

The approach of proposed research problem determined the necessity of studying a large scientific spectrum in this area of research. A particular interest for our research represented the theoretical perspectives of the Moldovan researches. The phenomenon of competencies training within the initial professional training promoted in higher education has become the subject of multiple investigations. Thus, in this context we mention the innovative researches conducted by V.Andrițchi [1; 2], A.Bolboceanu [3], T.Callo [4; 5], M.Cojocaru-Borozan [6], O.Dandara [7], O.Duhlicher [8], Vl.Guțu [9; 10; 11; 12], Vl.Pâslaru [13], N.Silistraru [15], M.Șevciuc [17; 18; 20]. Personality development through educative actions focused on developing learning motivation was elucidated by L.Bazeli [21], L.Postan [14], E.Staricov [16], M.Șevciuc [19].

At the same time the researches in this area as well as the educational practice confirm that certain aspects of this problem were not explored enough. Proceeding from the specific of education and experience of initial professional training of future specialists for educational field from Israel and from the insufficiency in approaching the development of Arab students' learning

motivation emerges the formulation of **research problem**: which refers to determination of the psychosocial and pedagogical context influence on developing the learning motivation of Arab students in order to ensure the quality of future teachers initial training.

**The aim of the research** is the theoretical and methodological foundation of the influence of the psycho-social and pedagogical context on learning motivation of Arab future teachers in Arab and mixed colleges from Israel.

**The research objectives are to:**

- 1) Analyze the conceptual dimension of the learning context to Arab future teachers;
- 2) Approach the theoretical framework of developing learning motivation;
- 3) Identify the initial level of the Arab future teachers' motivation (autonomous and controlled), from Arab and mixed colleges;
- 4) Determine the relation between learning context and the learning motivation of Arab future teachers;
- 5) Develop and validate experimentally the Intervention Program For Enhancing Autonomous Learning Motivation among Arab future teachers.

**Research methodology includes:** *theoretical methods*: scientific documentation, comparative analysis, generalization, systematization; *empirical methods*: quantitative and qualitative methods, focus groups interviews, formative experiment; *mathematical and statistical methods* of data processing.

**The scientific novelty and originality of the research:** through the theoretical-experimental research process the concepts of motivation and learning motivation were actualized; The particularities of autonomous and controlled motivation of Arab future teachers depending on the psychosocial and pedagogical context of learning (Arab and mixed colleges) were established; An Intervention Program for developing Arab future teachers' autonomous learning motivation was developed.

**The scientific problem solved in research** consists in the theoretical and methodological foundation of developing the learning motivation to Arab future teachers by enhancing the value of the psycho -social and pedagogical learning context that contributed to the improvement of initial training of the Arab students in the educational field.

**The theoretical value of the research** refers to the theoretical foundation of the learning context in the initial training of Arab future teachers, focusing on the psychosocial and pedagogical dimension, especially on:

- Approaching the Arab future teachers' learning motivation from two different college types (Arab and mixed colleges) as a dimension of the efficient initial professional training;
- Valuing Self-Determination Theory (SDT) in the professional training of Arab future teachers in Israel depending on the psychosocial and pedagogical context of learning and teaching;
- Creating knowledge on the factors from the learner's own perceptions which explain autonomous and controlled motivation. In addition, expanding the knowledge of stakeholders and raising their awareness regarding the influence of learning contexts on fostering Arab future teachers' psychological needs (PN) and their learning motivation. Intervention program to empower future teachers' ability to express and reflect their thoughts, perceptions and experiences is of high importance to enhance their motivation.

**The applicative value of the research** is determined by experimental implementation of the Intervention Program focused on the development of the autonomous learning motivation among Arab future teachers in Israel; by highlighting the educational and professional initial training of the Arab future teachers in the basis of the elaborated Program focused on psychosocial and pedagogical dimension of learning; the elaborated Program could serve as a model to other intervention programs in order to develop the learning motivation to future teachers in general, and to Arab future teachers in particular.

This study seeks to make both a theoretical and practical contribution to the knowledge regarding the impact of the psychosocial and pedagogical learning context on developing learning motivation among Arab future teachers. The conceptual framework that guided this study is SDT [63, p. 11-40]. In current research on students' motivation, SDT [63, p. 43-85; 67; 155] is one model that has integrated both needs and social-cognitive constructs [142]. Therefore, this research choose to examine Arab motivation in relations to SDT which is potentially a useful theoretical framework for understanding students' motivation.

This study extends the literature on autonomy, relatedness and competence by examining the effects of these variables on the motivation of Arab future teachers. Since the vast majority of the literature about this topic has focused on students at elementary schools, this current study turn the examination toward an evenly important group of students (college students in general and Arab future teachers in particular), whose motivation, academic engagement, and achievement are equally important to understand. Furthermore, this study extends previous research by shifting the measure and understanding of the above variables from the teacher or

parent perceptions to a measure of the learner's own perceptions. This approach is taken in order to emphasize the phenomenological sense of competence, autonomy, and relatedness; to place the individual's experiences at the front. Earlier studies have concentrated on teacher or parent reports to evaluate support for autonomy on a ranging scale from controlling to autonomous [see 68; 92; 179]. Finally, tracing motivation over the course of time, along with addressing the role of perceived autonomy, relatedness, competence in the flow of students' motivation.

This niche is still vague, therefore it is considered essential to improve future teachers' achievement for the purpose of nurturing future teachers with strong sense of responsibility and commitment to the mission of teaching and particularly in Special Education. The state's best energies should be invested in preparing future educators having the qualities that will provide students with better chances for development and progress. Thus, the motive of the present study stems from both pedagogical concerns and academic interests.

This study should be of interest to teachers' educators, academic staff, and to Arab future teachers'. It anticipates to attract scholars' attention to Arab future teachers' motivation so that future studies investigate how best to help them develop and maintain a high sense of teaching efficacy and intrinsic motivation so that more qualified teachers remain in the teaching profession and provide quality teacher education for children with special needs.

Therefore, the importance of this study stems from the following:

1. Most previous research on motivation has tended to focus more on school samples. Therefore, this study examines whether the positive effects of autonomy, relatedness, and competence on motivation would be replicated in a college sample;
2. Almost most previous research did not study the Arab population motivation neither in schools, nor in higher education. Arab students face many obstacles: educational, social, political, cultural, and linguistically, therefore, this understanding is very crucial;
3. Few studies tested the Arab students' motivation from a self-determination perspective. It is essential to apply SDT in collectivist societies and contexts, such as the Arab society, by examining the relevance of the needs for autonomy, competence and relatedness toward Arab future teachers;
4. This study takes into consideration the psychosocial and pedagogical context which affects the unique indigenous minority and its effects on future teachers' motivation. This minority differs in their cultural, socio-demographic and socioeconomic characteristics from the Jewish society, thus the findings generated from the studies conducted for the Jewish society cannot be generalized for Arab future teachers' population, particularly for the reason that some them attend Arab colleges and others attend mixed colleges;



5. The results of this research could draw guidelines to the profession of pedagogical instructors and for teacher educators and provide self-criticism to the work of the instructors in order to improve and empower their role;
6. The results may help provide explanations and insights as well as recommendations to the educational leaders, pedagogical instructors, and policy makers and practical applications for teacher training institutions;
7. The results can also shed light on the complex reality in Israel, and provide us with information on the unique psychosocial and pedagogical learning context, of the Israeli Arab future teachers in academic colleges of education;
8. The study may contribute to understanding, improving and making future changes in the Department of Special Education.

**Approval of scientific results:** The fundamental ideas of the research and its conclusions are reflected in the scientific articles and papers presented at the international scientific conferences: International scientific conference "*Postmodern Education: efficiency and functionality*", November 15, 2013, State University of Moldova, Chisinau; International Scientific Conference "*Higher education and the labor market: connections and perspectives*", November 21, 2014, State University of Moldova, Chisinau; 2<sup>nd</sup> Annual International Conference on Humanities & Arts in a Global World, 3-6 January 2015 Athens, Greece.

### **Summary of the thesis chapters**

The **Introduction** presented the relevance and importance of the problem addressed, the research theme is outlined and highlighted the research problem. By formulating the purpose of the research, the dimensions are determined to investigate specific aspects of developing learning motivation among Arab future teachers. The scientific innovation, theoretical and practical value of research are formulated in the conceptualization of the main scientific results obtained.

**Chapter 1, "Analytical framework for approaching the learning context of Arab students future teachers from psychosocial and pedagogical perspective"** contains a definition of the conceptual dimension of the learning context in education sciences, and a discussion of the psychosocial and pedagogical dimension of the learning context of Arab future teachers. It defined the Arab students in Israel, their unique cultural characteristics, and education and the Arab and mixed academic teacher training colleges.

Teacher training colleges are a major and influential body which affects both teacher personal and professional identity. They play a role in the refinement of a personal tutor to play its role in the education of the new generations [55]. Many educational and academic leaders care about the issue of teacher training properly and efficiently, in order to ensure and foster a

generation of teachers and educators, which are able to deal well with the needs of the students and the educational system [89]. This study focuses on Arab future teachers studying in the Department of Special Education in two types of teacher training colleges in Israel: mixed colleges and Arab colleges.

**Chapter 2, "Theoretical approach for developing learning motivation of Arab students future teachers"** concentrates on the theoretical framework of the study which is based on SDT perspective. This chapter presented conceptual delimitations of learning motivation, and summarized the research and the existing knowledge on motivation and concentrated on two major and basic theories of motivation: self-efficacy theory derived from social cognitive theory and self-determination theory. SDT focuses mainly on promoting students' curiosity in learning, growth in competencies and wellbeing. This is followed by substantiation of the shortage in research on the interconnections between the learning context and learning motivation to Arab future teachers. Few studies were found that focused on the motivation of Arab students in higher education as a minority in Israel. Given the cultural influences relevant to motivation, the findings from past studies cannot be generalized for Arab future teachers.

**Chapter 3, "Experimental framework for enhancing the value of psychosocial and pedagogical context in order to develop learning motivation of Arab students future teachers"** presents the research field and the tools that have been implemented. It has diagnosed the initial learning motivation among Arab future teachers, in both quantitative and qualitative approaches, and suggested an intervention program which was implemented among Arab future teachers from mixed college.

**The main research findings:** The research results should not be interpreted in terms of identifying one single college type as preferred compared to other types, but they should be approached as an examination for those parameters that could be used to improve learning contexts. In the pre-results a significant difference was found between the two types of colleges, but the means of the predictor variables (program evaluation, attitudes toward teaching, Hebrew fluency, choosing the college type and the department of special education (CCSE), autonomy support, competence, relatedness), and outcome variables (autonomous and controlled motivation) are very close. Means of predictor variables, and outcome variables were all higher in Arab colleges. future teachers in Arab colleges had higher levels of motivation (quantity) and higher in both motivation types: autonomous and controlled motivation. Arab future teachers in mixed colleges seemed to pay the price of increased feelings of pressure and lower feelings of autonomy. Besides, from the FG<sub>s</sub>, it seems that the Arab future teachers in mixed colleges are more stressed than their peers in Arab colleges and also reported having lower feelings of

autonomy. In the qualitative results common and differentiated themes existed in both learning contexts. Common factors such as a feeling of stress existed in both learning contexts, but affected more the learning motivation in mixed colleges. Overall, in the qualitative results Arab future teachers, in both learning contexts, reported similar choices, expectations, stress, challenges and need for support. However, the later needs were more prominent among those in mixed colleges. This explains the higher means of the predictors and outcome variables. A great need to support future teachers was evident through the FGs, as proposed in SDT, autonomy support, feeling competence and relatedness could help future teachers' feeling of well-being, and enhance their autonomous motivation.

This study points out that the elaborated scheme which has been experimentally examined determines the level and type of future teachers' learning motivation. The psychosocial and pedagogical conditions and means enhanced the autonomous motivation of the treatment group. The intervention program will undergo another circle of conceptualization phase taking into consideration the psychosocial and pedagogical environment of each specific faculty and college, and individual differences of the participants, and training instructors and lecturers. Followed by implementation and reflection for enhancing autonomous motivation in order to have motivated teachers in the domain of Special Education and other teaching domains.

# 1. ANALYTICAL FRAMEWORK FOR APPROACHING THE LEARNING CONTEXT OF ARAB STUDENTS FUTURE TEACHERS FROM PSYCHOSOCIAL AND PEDAGOGICAL PERSPECTIVE

## 1.1. Conceptual dimension of the learning context in education sciences

This section contains factual background about Arab and mixed colleges, which formed the research participants. This section describes succinctly the conceptual dimension of the learning context in education sciences, and aims to enable the reader to be familiar with the research learning context.

The term *learning environment* traditionally refers only to learning processes. Progressive theories regarding the meaning of the learning environment relate to it as a system of connected components combined and directed towards the purpose of learning [164]. One part of the learning environment is connected with the learning and teaching process, another part deals with the structural aspects of the college environment or with the students in it [163]. The components of the learning environment are consistent, affecting each other so that it is impossible to isolate one (e.g. solely the learning process) without relating to the others (e.g. discipline, hierarchy, lecturer- student relationship etc.) or to change a single component in the learning environment without affecting the rest [162]. The combined environmental components structure the character and focus of that particular environment.

**Teacher Training Programs-** The report published by the United Nations Organization for Education, Science and Culture (UNESCO) in 2003 [191, p. 39-41] regarding multi-professional development for teachers, detailed the following skills, attitudes and values that are required from them, including: Knowledge in the field of general pedagogy; Knowledge in the subject matter; Pedagogical content knowledge; Knowledge of student context, such as finding out more about the students and their families; Knowledge of metaphors that enables bridging between theory and practice; Knowledge in the field of external evaluation of the learning process; Clinical training; Knowledge of strategies, techniques and tools lead to effective learning process; Knowledge of strategies and attitudes needed to work with children in multicultural social groups; Knowledge and attitudes of supporting social and political justice, were the teacher's role as a social agent is very important; knowledge and skills to apply technology in the curriculum and in the ongoing work in the classroom [191, p. 39-41].

Vonk [192] reviewed the teacher-preparation programs existing in most Western-European countries. He concludes that there are two models:

(1) *Teacher professionalism*, “which is based on the principals of mastering the academic or subject knowledge and professional competence. In this model, teacher education provides future teachers with instructional skills and knowledge of pupils' learning processes and of child development” [192, p. 291].

(2) *Personal growth model*, assumes that “if teachers have greater self-understanding, are more reflective, more sensitive, more empathic, and more fully self-actualized, they would inevitably be better teachers” [192, p. 291].

Teacher training colleges are a major and influential body which affect both teachers' personal and professional identity. They play a role in the refinement of a personal tutor to play its role in the education of new generations. Teacher training programs include three basic stages [80]:

1. *Pre-service training*: The initial qualification stage is called “pre-service training” including theoretical and practical training in the colleges.
2. *Induction*: The stage of entering the field of education is called “Induction”, where the new teacher starts his practical experience in the field of teaching as an independent teacher.
3. *In-service training*: Professional developmental phase during the years of service “In-service training”, where the professional role of the teacher shapes, and his professional identity develops.

Teaching is complex and challenging, therefore, teacher education programs are designed to provide future teachers with theoretical knowledge and practical skills so that they are able to deal with the numerous challenges they may come across in the real contexts of teaching [123].

**Teacher Training Programs in Israel**- This study focuses on future teachers. One of the notable changes in recent years is the establishment of a new and uniform outline for the various teacher training programs in higher education according to Ariav committee headed by Prof. Tamar Ariav [213]. The existing programs for teacher training proposed by Ariav [213] in the academic teacher training colleges relies on three basic principles, namely:

1. *Teacher personal development*: Accordingly the teacher will be able to make self-criticism and improve according to the requirements of the surrounding environment, including students and community. The college must play a role in designing the character of the teacher.
2. *Specialization in the field of education*: The teacher should be a specialist in a specific subject matter, in order to be able to teach the foundations of the necessary knowledge in the subject to his students. The ability of the teacher and his knowledge

in the field of specialization helps in choosing the most important study materials to his students in the field of specialization, as it enables the teacher in directing students towards personal research, and gives them the appropriate tools to think deeply and independently on the subject.

3. *Learning strategies and teaching methods*: The teacher should acquire different teaching methods and appropriate materials to help him teach the subject matter to his students in the best and most effective way, and match the teaching methods to the different capabilities of students. The students in the academic colleges of education gain these strategies through practical training in different schools with diverse groups of students.

Many educational and academic leaders care about the issue of efficient teacher training, in order to ensure and foster a generation of teachers and educators, whom are able to deal well with the needs of the students and the educational system. Lately, the Ministry of Education in Israel initiated publication of guidelines which are based on the principles of the “Ariav” Committee [213] which determines the goals of improving teachers' training programs, as follows: Attracting qualified candidates to the field of education; determining unified conditions for acceptance and graduating which includes all teacher training institutions; promoting of specialized studies; increasing the control of the Higher Education Board of the rehabilitation process; setting new standards for the study of education, like other professions; emphasizing the importance of practical experience in the process of teacher education; establishing even guidelines for all academic frameworks of colleges and universities interested in the rehabilitation of teachers, building component platform of the four years study for a bachelor's degree in education, with access to education and certification in accordance with the requirements of the higher education system in Israel, and finally, to give academic credibility of teaching certificate studies for academics.

Israel has 23 Colleges of Education, in addition to five departments' schools of education in universities. 11 colleges operate in the secular sector, 9 in the religious, and 3 in the Arab sector. Colleges throughout the country: eight in the north and in Haifa, seven in Tel Aviv and the center, five in Jerusalem and three in the south. Israeli colleges train teachers tracks Bachelor's and two combined teaching certificate and study teaching certificate academics. In addition, pathways for teacher professional development which offers studies in education and teaching, conversion and expansion of certification [217, p. 1; 218].

The Arab colleges of education within Israel, as the mixed colleges, are affiliated to the Israeli Ministry of education and the Israeli council for higher education. However, it's

specialized for the Arab minority living within Israel. In Israel there are three colleges of education for Arabs. In addition to these colleges there are seven sections specialized for Arabs in mixed colleges of education.

**Special Education Training Program-** This section describes succinctly the overall structure and vision of the Departments of Special Education, and aims to enable the reader to be familiar with the research learning context.

Special Education training program includes theoretical content in education, Special Education and psychology. It also includes practical training program in different schools. It used to train Special Education teachers in a comprehensive way, when the student learns a number of theoretical courses in Special Education, however practical work begins in the first year with a specific population group. Most Special Education programs train the student to work with children with special needs in education from age 6 to age 21 [59].

The goal of the innovation in the outlines is reflected in improving the quality of teachers' training programs, matching the teacher training to current trends in developed countries and strengthening the role of teacher training in higher education in Israel. Today, some colleges have adopted the outline of Special Education (from age 6 to 21). Few colleges have inserted the teacher training program in Special Education preschoolers (birth to age 6). The new outline enables the student to study second specialization aside from the main specialization in Special Education, and allows him to choose between two possibilities: first-degree structure double major: Department of Special Education and a second disciplinary department - teaching profession in the school system. The second possibility is general degree in two departments: Department of Special Education (specialization in medium and hard disabilities), second department consists of disciplinary divisions consisting of one of two possibilities: two divisions of the two disciplines, or three divisions of the three disciplines in the volume of the same hours [59].

In the last two decades there has been an increase in the number of Arab students attending academic degree in Special Education. Most Arab colleges still continue to train Special Education teachers in a comprehensive way. Therefore, the picture that comes from the field relates to a failure in the training and preparation of teachers to work effectively with diverse populations in Special Education. Sometimes these difficulties are reflected in a complex profile of children in Special Education with several disorders at the same time. Recent years have seen the opening of schools in Special Education with different specialties in Arab society (autism, learning disabilities, blind, deaf, mild retardation, moderate mental retardation, severe

mental retardation, therapeutic kindergartens). This development does not fit the profile of the new teacher in Special Education, and the comprehensive training program used so far [59].

## **1.2. Psychosocial dimension of the learning context of Arab future teachers Israeli society**

A thorough study of the learning context of Arab future teachers requires a brief description of Israeli society and the position of the Arab society within it. Israeli society is described as a multicultural society that has multi-rifts [38; 166]. It is an intensely divided country over national, ethnic, religious and other social rifts. The most central and problematic rift is between the Jewish majority and the Arab minority [35; 165], which is an indigenous minority in Israel [39]. Jewish–Arab relations in Israel are the result of conflict and have developed under the shade of this conflict. The ongoing Arab–Israeli conflict has served to expand the split [35; 165].

Israeli governments have treated the Arab minority as a cultural minority and not as a national minority. The term used by Israeli Jews in order to define this group is "Israeli Arabs" [52]. They all define their own identity in various ways, with the order and choice of words being meaningful as they signify their priorities. They identify themselves as Palestinian-Israelis; 1948 Palestinians; Israeli-Arabs; Arab-Israelis; Israeli-Palestinian; Arabs; Muslims; Israeli-Muslims; Israelis; Arab-Christians; Israeli-Arab-Christians; Palestinian-Arab-Christians [88].

Masalha [130] explains the integration of the two conflicted identities of the Arab (national and civil) through the model of "double marginalization". He claims that Arab in Israel can combine civic and national identity due to the marginal status of the two identities. The economic, social and political life of Arab in Israel as a minority challenged them to look for ways to bridge the personal and social conflicts. They tried to fit in different life in Israel and maintain, at the same time, their unique identity [130].

What is the impact of this situation on the Arab minority and its education? The following section focuses on the Arab society as a minority, and the education of this minority in Israel. The purpose of this section is to demonstrate the psychosocial and cultural context of the Arab population in general, and the Arab student in particular.

**The Arab Minority and in Israel** differs from the Jewish majority in religion, language, culture, history, nationality, areas of residence and lifestyle. The Arab in Israel maintained their language and culture, as 90% of them live in geographically separate cities and villages. Those who live in mixed cities in Israel are generally located in different neighborhoods [99].



The Arab society is characterized as collective and authoritarian [75; 76]. Men are the most important source of authority in the family and play the role of the key decision makers in the family [38]. A collective society is a traditional and homogeneous society, characterized by interdependent relationships between people. The extended family is the core of the Arab social group [104], shaping the life of the individual, and directing his behavior and values through fixed norms. These norms emphasize the hierarchy and social harmony that is expressed under the control of men and their superiority on women. However, it should be noted here that these characteristics are changing in the Arab society [33; 101].

The Arab family provides security and support in times of personal, social or family distress. Thus, the personal successes and failures of the family's members are not considered as their strictly personal affairs but they are regarded as the whole family's concerns. The Arab family plays a protective role, shielding its members against "external risks" and usually provides for their needs. Thus, an individual's self-image, self-esteem, excellence and success, confidence and identity are traits valued on the grounds of their connections with the family. Threats of a disruption in the provision of family support could permanently damage an individual's self-confidence, cause him or her anxiety and harm the ability to cope with the demands of life [100].

In the 1950s Arabs were a traditional society and largely illiterate. Nowadays, there is still a considerable gap between them and the Jews in terms of social stratification [49; 71]. Structural and cultural factors embedded in Israeli society contributed to the process of individualization of the Arab society in Israel. Nowadays, the Arab society in Israel is in a continuous process of reshaping its values and searching for modern as well as original ways of action and expression trends. Arabs in Israel are struggling and trying to define their own identity and nationality, goals, aspirations and ways of action. The transition process is reflected in various fields such as the economy, education and culture as well as in the status of women in both the societal and family level [100].

**Hebrew Language among Israeli Arab-** Considerable number of studies have been conducted regarding the complexities for Arabs living in the State of Israel. With the establishment of the State of Israel as a Jewish homeland, the Arab population found themselves to be an Arabic speaking minority living in a country administered officially in Hebrew. Being a minority, the Israeli-Arab population in Israel learns Hebrew as second language (L2) and as the language of the dominant group [24]. Accordingly, while Arabic is used in Arab schools, that is not the case in the universities and mixed colleges. For the Arab student, the encounter with the higher education environment is filled with difficulties. Like all applicants, Arab students are

expected to qualify for the selection and acceptance processes standards as required by those institutions. In order to enroll in Israeli higher education students have to pass "Psychometric exam". The "Psychometric exam" is an obligatory required test for registration to all universities and to some colleges in Israel. Moreover, In order to register to a mixed college or university in Israel, Israeli Arab students have to pass "Hebrew Proficiency Exam" which is called "Yael Exam". This exam is intended for examinees who take the "Psychometric exam" in a language other than Hebrew. This test is used as a criterion for acceptance at some universities and at mixed colleges. It takes approximately one and a half hours, the exam instructions are in Hebrew, and it consists of two parts. The first part contains two or three sections with questions in multiple-choice format; in the second part, examinees are requested to write a composition. The exam is an obstacle for some students to admission and acceptance to the desired departments. Therefore some Arab students register to Arab colleges where there is no such requirement, and some turn to higher education abroad [175, p. 12, 46].

The official and defined languages in Israel are Hebrew and Arabic. Israel is a multi-cultural state which includes citizens from different nationalities. The definition of the state is based on its being a Jewish identity, therefore the culture of the Jewish nation, which is the majority of it, is the dominant culture in the state, and public life is conducted mostly in Hebrew. Learning in higher education are also held in Hebrew [49].

Spolsky & Shohamy [182] argued that the main problem in the education of Israeli - Arab is the teaching of the Hebrew language. Due to the fact that it is taught as a second language, and not as a foreign language - despite the gaps between the citizens in cities and villages in the level of exposure to Hebrew in the course of their daily routines - many students do not reach the level required to study in the university. Consequently, the language constitutes a barrier to higher education. Teaching methods affect, among other things, the effectiveness of language acquisition: there is no use of translation to mother tongue as usually and learning is mainly frontal, the teacher stands in front of the class and talks most of the time [182].

**The Status of the Hebrew Language** -The situation of the Arab original minority in Israel requires the learning of three languages. Arab children speak Arabic (bi-lingual language), their first language (L1), in their homes and neighborhoods and receive their schooling in it. Because this Arab minority lives in Israel, they need to acquire Hebrew, the national language of the dominant group and of the state of Israel, as their second language (SL). They learn Hebrew at school as a compulsory subject since 2<sup>nd</sup> grade [29]. The Hebrew language is a major obstacle. Although Arab students study Hebrew in Arab schools, there is almost no use of language outside the class so there is an immediate difficulty in speaking, understanding, reading and

academic writing [175]. Abu-Rabia [23] also studied the learning of Hebrew by Israeli Arab students in Israel. He found that the motivation of the Israeli Arab students to learn Hebrew is first of all because they need it in their daily life, so it is a necessary rather than integrative. Knowledge of Hebrew is essential for their daily survival, and they must also be educated in English because it is international and the common written and spoken language of academic life. Arab students study English as their third language [23].

Another central and problematic issue in teaching Hebrew in Arab schools is the amount of Jewish content. There is a great deal of Jewish Scripture (the Bible and analysts), which are difficult in two levels: first, this is a difficult ancient Hebrew, and second, students feel they are learning more Jewish content than the content of their culture and traditions, and this objection reduces the effectiveness of learning [182]. The role of motivation in second language acquisition was studied by Gardner [86; 87]. Language according to Gardner is an important part of the individual's identity, and it is affected by attitudinal factors related to ability, ethnic relations and linguistic elements. Gardner suggested a socio-educational model of second language that emphasizes the ability and motivation as most important components of SL learning. The socio-educational model distinguishes between two types of attitudes toward the learning of SL: integrative attitudes and instrumental attitudes. Both types of attitudes influence the individual learning motivation a SL, and that motivation is responsible for achievement in the SL [131]. Despite the difficulties, the data collected show that the Hebrew language has prestige and high status among Israeli Arabs and that there is a willingness to learn the language and master it [107].

### **1.3. Pedagogical dimension of the learning context of Arab future teachers Education among Arab in Israel**

In Israel there are two separate educational systems; Jewish schools and Arab schools. The separation between the two systems could be attributed to several reasons. The major one among them is the concentration of the Arab citizens in the Arab areas where Arabs can get education in an appropriate environment consistent with their lifestyle, enabling them to maintain their cultural, religious and linguistic traditions [35]. In contrast, higher education provided in the context of universities has mixed characteristics - Jew and Arab students sit side by side in class with the Jews being, expectedly, the majority [140]. Although the Arab minority is recognized and identified as an ethnic minority in Israel, it does not enjoy a large measure of linguistic and cultural autonomy [24]. Many articles raised the issue of Arab education in Israel; it has shown that the educational system does not fulfill its desired role. The outcome of this

system has created a grim reality, evidenced during and at the end of each academic year when the official results for all grade levels are published. The results and implications of the system's failure in the reality of the Arab population compared with the majority of Jews in the country, whether at the organizational and practiced level of political culture or when considering their low socio-economic status is also clear [22].

Arab schools reflect the educational toolbox that the students bring to higher education. Research on the impact of the Arab educational system on learning aspects of the integration in higher education mostly deals with teaching staff, teaching methods, learning skills, student achievement, public investment per student - teaching hours and the number of students in the class. A disadvantage of the system that supports students in the Israeli- Arab society is clear. The teaching staff at the secondary school is a significant resource with the ability to influence mainly in social environments where most of the older generation is not highly educated. Additionally, lack of role models in many Arab schools negatively affects the academic ambition of the Arab population [122].

Arab schools differ from Jewish schools also in teaching the methods and learning skills. In general, teaching methods in Arab schools do not encourage critical and independent thinking patterns. These methods also differ from the academic methods in higher education. Arab school educational systems use mainly memorization methods and understanding texts at a basic level. Another gap, between the Arab and Jewish populations, and among the Arabs themselves, exists in computer skills that are required in higher learning [151; 175]. Furthermore, the policy of Israeli Ministry of Education and Culture concerning the Arab minority is oriented more towards Hebrew language and literature than to Arabic language and culture [25]. Moreover, school budgets and teaching hours are not fairly distributed between them [172]. Al-Haj [34; 35] complains and proves the inequality against minorities in education budgets. He argues that the approach of the Ministry of Education and the education system is not multi-cultural. For example, they study more Hebrew and Jewish history than Arabic language, Arab culture, and Arab history [25; 38].

Diab & Daas [71] indicated that despite the large and significant differences in function in various areas of the education system, beginnings of development and achievements can be seen, for example: the success of girls in matriculation exams, decrease in the percentage of students dropout in secondary school, better results in the exams of school efficiency and development on the one hand. But on the other hand, the way to achieve the desired image is still long and complex in terms of the factors and influences and the need to work within a complex and multi-dimensional model [71]. These gaps directly affect Arab university students, as they

face difficulties in admission to universities and academic institutions because of a gap (100 degrees) in the Psychometric exams (university entrance exam). This could be an obstacle to their acceptance to the domains they wish to learn in order to serve their community, see Mostafa, 2011 In [71].

**Options, Difficulties and Barriers in Higher Education-** The academic education is one of the most important factors in the development of every society today. There is a special value for the academic education among the Arab society in Israel [33]. For the Arab minority in Israel, higher education is a central and almost exclusive tube for socio-financial mobility. Therefore, the perception of the importance of higher education among the general Arab society and Arab women in particular, is even more than usual in Jewish society [214].

Al-Haj [33; 34] emphasized that among the Arabs in Israel, the effort made on people has replaced the effort which is made on land. After losing their land, the higher education became a Palestinian symbol that the Arab society is proud of. Minorities give importance to acquire higher education to move away from a situation of unemployment and marginalized in society. The main labor market, mostly belonging to the hegemonic not easily opens its doors to members of the minority, and they must work harder to reach a state of equal opportunities with the majority [33; 34]. Moreover, the minority students face more difficulties at the universities of the majority. In addition, their achievements are lower than the others [203]. It seems that Arab students face many challenges by the time they enter the university. As a result of that, they experience more pressure than Jewish students [205].

After graduation from school, young Arabs who managed to graduate successfully can pursue higher education by attending Jewish universities, mixed colleges, or Arab colleges. Except that, in light of the difficulties presented above and due to the fact that Arab students learned separate from their Jewish companion in Arab schools, it is found that the Arab student at the end of the way, and very often, learn literary topics, especially in teacher training colleges. Besides that, some tend or even forced due to these conditions to continue their higher education at universities and colleges abroad, for example, in Jordan and in Eastern and Western European countries [37]. The Arab students face a number of difficulties and challenges after their acceptance for any domain. These difficulties lay ahead in front of the entrance to the university, in terms of adjusting to the new atmosphere and the academic requirements and challenges, especially the need to use the Hebrew language, and adjusting for independent style of learning in which the student is at the center, contrary to what the Arabic high school has prepared, see Mostafa, 2011 In [71].

Research on the integration of Arab students in higher education in Israel raises a number of findings about the personal aspects of integration. Abu-Saad [26] found that whenever the student's self-esteem is higher the evaluation of the abilities is higher too and this leads to higher academic ambitions. Other factors that affect integration are immaturity of the individual and a limited experience in life as well as a sense of isolation. The higher these factors are the integration in higher education will be more difficult [151].

Since the nineties there has been a significant increase of Arab students studying in higher education institutions, and especially in academic colleges. However, the rate is still lower than that of the Jewish population [36; 175]. **Major barriers and difficulties facing Arab applicants in higher education are:**

- ***Insufficient high school education:*** Comparatively poor education levels in the Arab public school system, especially Arab high schools, mean most Arab youngsters begin their journey into higher education at a disadvantage, especially where English, math, sciences and critical thinking study skills are concerned. The poorer quality of education leaves Arab high school students unprepared for matriculation certificate exams, unqualified to be admitted to institutions of higher learning, as well as not equipped to deal with studies at higher academic levels [98; 122; 186].

- ***Matriculation certificate:*** An excessively low number of Arab students pass all the exams compulsory for a complete matriculation certificate, and even fewer achieve matriculation that is up to academic standards, both necessary to be entitled for higher education. Results from international exams and matriculation exams have indicated that the performance of Arab students as compared to their Jewish peers is constantly dropping. Several committees were established in order to examine the state of the teacher training colleges in Israel over the past several years. However, all of these committees took a universal approach to teacher training, and ignored differences between Arab and Jewish teachers such as language, national identity, and tradition [29].

- ***Language barriers:*** Another personal aspect, that differentiates between most Jewish students and Arab students, is mother tongue. Roer-Strier & Haj-Yahia [151] refer to the language barrier as a major barrier to Arab students. A lack of proficiency in Hebrew and English is a major barrier for Arab students. Hebrew and English are usually the third and fourth languages for Arab youths, following Spoken Arabic (spoken at home and in the Arab public education system in Israel) and Literary Arabic (studied in Arab schools).

- ***Economic barriers:*** There is a great need for financial assistance for higher education especially with 51% of Arab families living under poverty levels. Nevertheless scholarships both

for pre-academic courses and for tuition fees, are scarce as many are conditioned on Army or national service. There is also a cultural resistance among Arab students to seek external help as this is perceived as weakness [98].

- ***Psychometric exam:*** Successfully passing the exam is a major barrier for Arab youths. Repeated measurements over the years show a 100 points difference (out of a total 800) between average score of Jewish and Arab youths [98; 71].

- ***Pre-academic preparation year:*** Very few Arab students participate in available courses for pre-academic preparation, though they could benefit greatly from it. This is due to several reasons: lack of courses that are suitable to the specific needs of Arab students, negative stigmas linked with pre-academic studies, a lack of awareness of their importance and potential benefits and financial costs that hinder participation [98].

- ***Poor knowledge, awareness and understanding of the Israeli system of higher education:*** Arab students are not prepared adequately to choose and make decisions from the bank of options and possibilities existing in the higher education system. Examples on this include: finding options and resources available to them, completing the application process, selecting fields of study, learning about and attaining scholarships, comparing between institutions, etc. [98].

- ***Accommodation and transportation:*** Most Arab students live in Arab villages on Israel's periphery where public transportation is unreachable or insufficient, making travel times long and transportation cumbersome and expensive. Also, lack of dorm rooms, difficulties renting apartments in main cities, and cultural limitations for traditional Arab women make travelling a necessity for many students [98].

- ***Age restrictions:*** Acceptance into various academic fields and clinical professions such as medical school, nursing, physical therapy, occupational therapy and speech therapy is conditioned with minimum age restrictions (19, 20 or even 21). As Arab students do not serve in the Israeli army, they begin their higher education around the age of 18, this presents a main barrier [98].

- ***Cultural and peer group differences:*** Arab students arrive at the university at least two years younger than their Jewish peers, as soon as they graduate from high school. For Arab students, higher education is often the first time they leave their local community, leading to a very difficult personal experience and even culture shock. This makes the first year especially challenging [98].

**Choosing the Teaching Profession among Arab-** Choosing a profession is one of the most significant decisions in the individual life, and it is a complex process that consists of

several phases. The decision of choosing a career is made on a base of internal and external factors. There is an extensive literature about the motives for choosing the teaching profession. Researchers generally tend to divide these motives into three categories [56; 64; 173; 204].

1. *External motivation* such as influence of family and teachers, salary, stability and security, occupational status and prestige, convenient work hours and long vacations, especially among women.
2. *Internal motivation* such as natural talent for teaching, pleasure from teaching, children love, academic ability and intellectual challenge.
3. *Altruistic type motivation* such as desire to help children and contribute to society, desire to inter-personal relationship, the will to continue purchasing education.

Choosing a field of study and academic institution is also influenced by social and cultural considerations. Family and social environment takes an active part in selecting the weights given to the various factors, especially in Arab society which holds traditional elements. Among Arab students, many of whom is first-generation higher education and among minority populations a priority and prestige is given to professions that will enable greater certainty to secure employment and higher income [175].

Abu-Asbeh [22] claims that the reason that a high percentage of educated Arabs choose to attend the colleges of education are caused by limited employment opportunities. Many academics Arabs do not find a job in the field of specialization, and turn to education as a source of livelihood. The fact that the opportunities to work in the open labor market are very limited, so a large part of the young Arabs enroll in teacher training colleges. In parallel Ilaiyan et al. [108] studied the motives in choosing the teaching profession among Arab teacher trainees. The purpose of the research was to identify the main motives that direct the Arab students in choosing the teaching as their profession, and to examine the factors that affect their choice. The results indicated that the main motives for choosing teaching as a profession are internal motivations such as: intellectual development, creativity, pleasure, satisfaction and social commitment. The most crucial factors that affect the process of choosing the teaching profession are conviction of a relative and request or recommendation of parents. The results presented a profile of the teaching trainees in Israeli- Arab society, which consider the teaching profession as self- fulfillment, expression of their development, and as an ethnic-minority students consider themselves agents of social change and some of them take on this mission for underlying reasons related to their personal educational encounters with inequality.

The Arab students perceive the educational field as a default option, differently from other academic fields in which they feel they basically have no possibility for development [70;



73]. Diab & Barshalom [70] studied the voices of Arab students and faculty members in teacher training institutions. They found a substantive number of Arab students and faculty members in teacher training institutions but in spite of the large number of Arabs in these institutions there are many signs of exclusion.

The factors of choosing the teaching profession is an important variable in the research, as it could affect the students' learning motivation. In first academic year, students also start to realize if their choice of the teaching profession, and of the specific discipline meets their expectations. This is particularly obvious to them and tangible in their teaching practice at schools. The question of participation in choosing the teaching profession is important also in light of the support it gains from previous studies that indicated that choosing a profession that fulfills the individual's needs and personal tendencies leads to greater personal welfare, as expressed in satisfaction at work, motivation, persistence and achievements, and vice versa [152; 181].

It is important to mention that statistically the majority of the teachers are females [73; 108; 186]. Therefore “teaching as feminized” is not a recent phenomenon [178, p.85]. In the Arab society the phenomenon of “feminization of teaching” is also obvious [35]. The Arab society is still characterized as a traditional and patriarchal society therefore prefers the teaching profession which enables the Arab women needs to reconcile the demands of home and work outside. In addition they look to the teaching profession as a natural continuation of the role of women responsible for the upbringing of their children, and that explains the influence of parents on the choice of the teaching profession. We are witnessing the phenomenon of seeing young Arab women’s who go to Jordan to study medicine , pharmacy and educational counseling, see Haj-Yahya & Abu-Atiya, 2007 In [73], but still a large share of the total professions practiced are by Arab young women.

In Agbarias' [32] research significant correlations were found between motivation and self-efficacy, as well as between participation in choosing one's collage and the academic year. Increasing students' involvement in shaping their professional future will have a positive effect on their motivation, as expressed by persistence in study, enthusiasm to study and to face challenges productively, and a greater emotional bond. For that reason the study recommends better consciousness on the part of parents and high school teachers of the drawbacks of commanding a choice of profession that does not settle with the student's personal wishes. Such pressure may have long-standing effects on student professional development [32].

**Choosing the College-** College choice research has been best described as a three-stage process by Hossler and Gallagher’s [105]. The college choice model includes predisposition,

search, and choice. Hossler and Gallagher's framework suggests an explanation of the college-choice process, or the stages students go through as they decide whether or not they will register to college. Each stage contributes to the understanding of students' behaviors and attitudes for attending college [93; 136]. Throughout the predisposition phase (nursery school - grade 8), students build up an attitude toward postsecondary education. Before making a decision about whether or not to attend college, students consider the possible profit and costs of enduring their education and eventually decide whether they will go to college. In the second phase- search (grades 9–10), students expand their choice set, or the group of schools to which they will apply, on the basis of their needs, values, and boundaries. During this phase, students look for information about and consider the institutions to which they would like to apply. Choice is the final stage of the process (grades 11–12), during which students apply for admission at one or more colleges and eventually choose an institution to attend [105]. Economic, social status and social psychology theories have contributed a perspective for examining the college choice process along with specific factors that influence each stage. The choice stage involves both institutional and individual factors and rational and intuitive processes that result in a student's decision to apply to and enroll at an institution. Factors considered by students in making their choice to attend college include individual attributes such as socioeconomic class, ability, parental education, residency characteristics, parental encouragement, peer encouragement and support, and ethnicity. Institutional factors include costs (tuition, living expenses, and transportation), financial support, special academic and nonacademic programs, institutional reputation, location, social atmosphere, institutional size and class size [136].

Studying in a mixed college rather than in Arabic college could be a similar experience for studying abroad since many students leave their villages and towns and live away from home for the first time, and meet with “the other” in college. Salisbury et al. [161] concentrated their research on the process of students' choice to study abroad. They found that factors including socioeconomic status, social and cultural capital influence student intent to study abroad, and these factors influence males and females differently. Their findings were based on surveys with a sample size of 2,772 students. They applied student choice theory, see Paulsen & St. John, 2002; St. John et al., 2001 In [162] and Laura Perna's, 2006 In [161] integrated model used by her to foresee college choice. According to this model there are three decision-making stages of college choice, which the authors argue are nearly identical to the choice process for study abroad. These stages are (a) the development of the pre-tendency or intent to study abroad, (b) the search for an appropriate program, and (c) the selection of a specific location and program [105]. The student choice theory, see Paulsen & St. John, 2002, St. John et al., 2001 In [161]

argues that students' decisions are shaped by their socioeconomic background such as home life and school environment. That is, long-lasting influences that an individual gains throughout their home and school environments- such as values, attitudes, aspirations and perceptions- generate a framework for individual decisions [97].

The college choice process is most often conceptualized as the series of decisions students and their families make about whether the students will continue their formal education beyond high school and if so, what institution the student will attend. This process begins with the formation of college aspirations and continues through enrollment in a postsecondary education institution. Many questions come in mind when we think about the factors that lead the Arab students to choose Arab college or mixed college which has a minority of Arab students in it. It is important to understand what motivates the Arab student to choose an Arab college or a mixed college. Moreover, in the Arab society religion serves as a resistance force and suppression against liberal changes in the society. Religion has a considerable influence and often decisive on the social, cultural and political life [125], and it is strengthening and becoming a powerful factor among the three religions in the Arab society: Islam, Christianity and the Druze religion [125; 180].

Thus this life decision- choice of college and college type- examined in the study was selected for a variety of reasons. First, it is an important and difficult life decision, faced by many adolescents and their families. This decision has implications on family ties, friendship, professional and career plans. The choice of college is expected to determine whether the student will live away from home, will need loans, will maintain the same relationship with high school friends. Moreover, the choice of college may determine, or at least influence the chances of success in finding career opportunities, and on intellectual development, on social status, and possibility of admission to graduate from professional school. This decision is one that occurs during a well-delimited time period and on a well-defined timetable. In few other significant life decision can a large cohort of decision makers be found all of whom are expected period of time away from the last decision. This allows us to make better predictions about where in the process a student is likely to be at any given point [84].

College choice is the first most important financial, educational, social and professional decision for many students which they have had much responsibility for and choice in. Lastly, like most difficult decisions, the choice of college requires the student to search for and integrate information from a variety of sources. This decision can take days or even weeks of a decision-makers time. Information on college is willingly accessible from various sources such as high school guidance, counselors and the guidebooks, brochures and pamphlets, videotapes produced

by colleges and universities. Indeed there is more information than any one individual can hope to process thoroughly in the year or so in which college decisions are typically made. Thus, this decision is one rich enough to support various approaches and strategies of information gathering and synthesis [84].

There is no single right choice to make when choosing a college. Instead, any number of choices might all be possible or reasonable, leaving the decision maker to find means by which to choose. Definitely, the college decision, unlike many laboratory decision-making tasks, requires students to seek out information, develop or discover own criteria, assess different alternatives- all processes themselves that might require countless decision. Students do not have all of the important information with which to make the decision placed before them- indeed, they must decide when they have collected adequate information. Most laboratory tasks present students with information of know (often perfect) reliability or validity (at least by hypotheses). In this real-life decision, the quality information collected (including impressions from visits, opinions of family and friends) must be assessed. These plausible differences between real-life and laboratory decision making raise the question of what yardsticks, if any, can be used to assess the process of making real-life, ill-defined decision, such as choosing a college [85]. In Hemsley-Brown [103] research on college choice among 16 year olds students in London it was found that though students initially base their choices on ‘pre-dispositions’ and work within social and cultural frames of reference, young people also rely on the marketing information provided by colleges to justify their choices, and to announce their decisions to others [103].

Higher ability students are likely to consider more criteria, more different types of criteria, and more schools than do lower ability students. This tendency suggests that higher ability students make a slightly more complex decision ‘map’ for themselves, by using more criteria with which to make a decision. The general conclusion of the research is that students find this decision hard to make, and they seem to limit the set of information they actively consider at any point in time to about nine criteria and about four alternatives [84].

Even though school and colleges attempted to provide rich information when they reached 14, most students were already disposed to desired or non-desired options [103]. Hemsley-Brown [103] findings suggest that college and careers education and guidance staff enter the process of decision making to a certain extent at a late stage. Students already had preconceptions about professional and academic options (and some colleges) before they entered an official process of decision making. These preconceptions had been shaped within the context of the family and among peers. It was suggested that colleges need to consider ways of handing over positive information about the value of higher education to parents and to pupils at a

younger age. In Agbaria & Totri [31] and Totris' [186] research it was found that the majority of the Arab students did not receive guidance in selecting the department in which they learn (neither during their high school nor when registered to college), but along with that most of them said they were satisfied with their choice of departments.

Nora's [136] study on 'choosing college among minority and nonminority students' examined the dimensions of precollege psychosocial factors, determined the extent to which those factors were reflected in students' college choices, and established the effects those factors exert on measures of student satisfaction. In general, students choose colleges where they experience comfort and acceptance. The study focused on sources of change over which institutions and individuals have some control. For example, if minority students are underrepresented on a college campus, what can that institution do to attract minority students and provide experiences that facilitate their feeling accepted and comfortable? If we know that students who depend on psychosocial factors to inform their college decisions are afterward more satisfied with their college experiences, what can be done to translate this finding into informational programs to inform students and parents? The college choice process is a complex effort and many questions remain unanswered demonstrating that further research is necessary to unravel its countless complexities. These results begin to update practice at secondary and postsecondary institutions. Secondary school counselors should encourage students to visit campuses before enrolling. Similarly, college administrators ought to estimate their campus visit programs to ensure visitors feel at home and are encouraged to attend. Generally, students should choose a college where they experience comfort, acceptance, recognition and fit. These experiences are influential predictors of satisfaction that provide the drive for students to return for another year [136].

Studies conducted on college choice among Israeli students [51] and among Arab minority [31; 186] show that a large part of the respondents indicated that the high level of teaching and the good name of the college were the main reasons for their choice to learn in a mixed college. Only a small part of the respondents mentioned that the media advertising was the main reason for their choice.

Diab & Mi'ari [73] conducted a research on motives of Arab students in attending teacher training institutes and its effect on their professional development. The results of the quantitative research indicate that the factors influencing the decision to attend college are summarized as follows: The vast majority of participants (75%) indicated that employment opportunities in the future influenced or greatly influenced their decision [70; 73; 108]. This factor follows, according to the arrangement, professional and academic factors as follows: personal interest

(69%) and college level (68%). And only then three non-professional and non-academic factors, as follows: desire of parents (51%) and the influence of friends or significant other (45%) and the difficulties of university admissions (42%). When students were asked about the most influential factor in their decision to attend college, most of the participants (30%) stated that the choice is personal interest in the profession, (24%) “Jobs in the future” and (23%) “University admission difficulties” [73].

Given the above transitioning from high school to higher education is a crucial phase, which can affect Arab minority students' learning motivation and to persist in college. Therefore it is important to understand their reasons for choosing college in general, and college type in particular.

**Choosing Special Education Profession-** In the last few years a large number of students choose to study Special Education in preference to other fields in the colleges of education. Several studies have addressed the issue of the motivation for selecting teaching in regular education but this topic has barely been investigated in Special Education. The sources and implications of this phenomenon must be investigated particularly considering the percentage of pupils with special needs in the educational system. In Lavians' [126] research on motives of student teachers to major in Special Education, it was found that most of them perceive Special Education as more meaningful than regular education, while some of them see educational studies as a step towards studying various types of therapy. Most of them came to Special Education from a very personal place or familial difficulties. Some of them are sisters to children with special needs and some of them have learning disabilities or were new immigrants. This forced them to experience in the early stages of their lives a treatment where they experienced success either through personal responsibility or in the army. They come to teaching with the intention of changing the system, to make it better and more compassionate. Some of them come to teaching out of a wish for a corrective experience for themselves after a sense of failure in the regular system. Some of the participants indicated the influence that significant Special Education teachers had on them as models of identification. All the participants recognized themselves as having personal characters and abilities that drove them to pursue this profession such as creativeness, flexibility, dedication, endurance, compassion and sympathy [126]. Kass & Miller [119] studied the professional choice motives of teachers in the Bedouin sector specialization for Special Education. The results indicated that the teachers seek to become agents of social change. They plan for professional autonomy and independence within the Israeli Arab education system, a moral-awareness aspect of their society's view of Special Education, and a practical aspect, in which the teachers wish to promote their professional

qualifications in order to improve their manage with obstacles and challenges that they confront in the field.

**Teacher Training for Arab in Israel-** Academic teacher training colleges are the education ministry's principal teacher training institutions, granting Bachelor and Master degrees, and teaching certification. These colleges combine the academic discipline with the practice, enabling its' students to experience actual teaching in kindergarten, elementary schools, junior high schools and Special Education schools. Learning in teacher training colleges was separate for Jews and Arabs [140]. The Ministry of Education and Culture prohibited accepting minority students into Jewish teacher training college. Israeli- Arab society had only one college, in Haifa, that could not get all the registrants, and therefore the pressure of the minority population to get into Jewish colleges succeeded. So, for over than two decades, Jewish colleges have been accepting Arab students [29].

Israeli-Arab citizens who wish to obtain the teaching certificate can choose between enrolling in university for an academic preparation for a teaching career or in teacher training colleges. Some of those students choose to join the Arab colleges, but many others choose to join official public academic colleges (sometimes called Hebrew or Jewish colleges). Two options are available in academic colleges to Arab students: (1) joining the course of public education and (2) enrolling in private separate divisions of multiple names such as: Bedouin and Arabs education tracks or institute for the preparation of Arab teachers [59, p. 132; 147, p. 275]. Most of the Arabs attending Jewish colleges choose to attend Arab programs [29].

According to the data from the Central Bureau of Statistics (CBS) from 2007-2008 Arabs comprise more than 31.2% of the students in teacher training colleges, although they only comprise about 20% of the Israeli society [213]. There are only 3 Arab teacher training colleges, whereas there are 56 Jewish colleges. In addition, there are 2,827 students in the Arab education colleges while the number of students in the Jewish teacher training colleges is 33,893, among which 3,327 are Arab students. The total number of Arab students in Arab and Jewish teacher training colleges combined is 6,154. Arab students who attend Arab colleges comprise almost 46%, while 54% of them attend Jewish colleges, mostly in special programs planned to include only Arab students. Many of these Arab programs within the Jewish colleges have some extent of managerial autonomy inside the college [29].

Few studies have been conducted in Israel about the integration of the Arab students in Jewish teacher training colleges, although it was more than a decade these colleges absorb Arab students. Teacher training in Israel is common for Jews and Arabs because of logistical reasons, such as income level, geographical proximity to Arab communities, but not for ideological

reasons. Thus, training Arab students in Jewish colleges is the responsibility of the college itself, for developing a model deemed appropriate for its students [140]. Agbaria [28] noted that despite the large number of Arab students in Jewish teacher training colleges, the college did not yet open special programs for Jews, such as the study of Arabic and learning about multiculturalism and minorities in the country. In fact, for the first time, Jewish and Arab students meet as part of the learning in higher education institutions.

Only Israeli Arab students from all the Arabic-speaking minorities Muslims, Christians, Bedouins, Cherkessians, and Druze attend Arab colleges. Thus, the Jewish don't attend Arab colleges because of language limitations as mentioned above. Most of the teaching staff are Arabs. The teaching in Arab colleges is mostly in Arabic language - which is the mother tongue (first language) of the Arabs in Israel. In Abu-Rabia [23] research, for second language learning, it was noted that the language curriculum will be engaging and meaningful to students only if it is relevant to their lives and their cultural backgrounds. It should be noted that even in Arab colleges, dealing with Hebrew language cannot be avoided.

Peleg & Raslan [140] indicated in their research that the Jewish College has a humanistic approach to students, which is a necessary, but not enough for proper training for multicultural. There is a cultural distance in education between the two groups of students, Jewish and minorities, which requires differential treatment in the training program that takes into account cultural differences. The criticism from the staff on the college policy regarding the absorption and integration of minorities highlights the necessary of adopting a clear definition of multicultural teacher education. Such definition should determine the policies and criteria for the minority population. The field of practical work and experience for the minority students must undergo re-examination and change, in order to train future teachers to work in their schools. Even in Israeli education system the multicultural approach is more declared than introverted. The Israeli education system advocates equal rights and opportunities. In reality, the needs of the minorities are not recognized as Jews are. This is expressed in the allocation of resources and the legitimacy of the national component in the curriculum [140].

Accordingly, in Jewish colleges the majority of the students are Jews. Arab students from all the Arabic-speaking minorities also attend these colleges, but they are a minority [36; 54]. The minority members face more difficulties at the colleges of the majority [35; 96; 140]. The Israeli Arab students who attend Jewish academic colleges are expected to be autonomous and responsible learners. For the first time (after learning in Arab schools by Arab teachers) they are learning and being taught mostly by Jews. They must listen to lectures, read, and write papers in Hebrew, a second language. They must also read articles and understand academic jargon in



English, a third language in which they are often not yet proficient. In Peleg & Raslan [140] it was shown that Arab students face many challenges by the time they enter the college. The study found that the first year of the Arab students in Jewish college is especially traumatic, and that a cultural disparity in education exists between the two groups of students. As a result of that, they experience more pressure than Jewish students [205] and have difficulties in academic and social adjustment [31; 186]. These difficulties are extremely obvious in their first academic year. In addition, their achievements are lower than others [203]. As entry to the college is also a passage from an Arab to a specifically Jewish context, it marks a transition to a position of social minority within the Jewish sector.

Sela & Resesi [172] research studied plagiarism among Arab students in Hebrew college for teacher training, and considered the Hebrew college as a melting pot of the academic integrity of the Arab education in Israel. They aimed to raise the issue on the agenda and lighting dimensions hidden from the eye, and presented the depth and complexity of the definition of the underlying problem, and suggested ways to reduce it [172].

Totri [186] studied the Arab students and the degree of absorption in a Jewish college for teacher training. In her study she found that most Arab students are young, unmarried and they usually live with their parents who help them pay their tuition, although the income of the parents of the Jewish student are double than the income of the Arab parents. Most of the Jewish students pay the tuition and the rent from their own earnings. Large part of the Arab students did not receive at all or received a lesser amount of the skills required for academic studies, and therefore first year is very difficult for them. This is a significant failure of Arab high schools in preparing the student to academic studies. A large part of the respondents indicated that they find it difficult studying for exams, read and understand texts in Hebrew and English, write an academic paper, prepare for oral exam and mostly - handle heavy assignments during the school year. Therefore, most of them believe that they are forced to put in more effort than Jewish students. While most Arab students face difficulties adapting to their studies, they do not participate in activities or do not seek frameworks that can help them fit in college-life: academically and socially. Many expressed a desire to fit in, but they do not make an effort to do so. Most Arab students do not participate in activities because they feel rejected and unwanted by Jewish students [186].

From another research of Al-Haj [34] it was shown also that there has been a lot of criticism regarding Arab teacher training: the amount of trainees and their learning level and the quality of the training offered to them. Various studies have shown that the academic training of

the Arab teachers, whether it is in Arab colleges or in universities, is not relevant to their cultural background [35].

Agbaria [29] emphasized the importance of recognition of the cultural and national individuality of Arab students as an indigenous minority in Israel. He emphasized the need to address this individuality in the teacher training process itself. And also the need for true partnership in the decision-making processes: e.g. Arab society will be evenly integrated in making decisions and setting policies regarding the material and supervision of teacher training in Israel. Agbaria [29] emphasizes the need for distinctive Arab teacher training policy that would provide solutions for the different cultural, linguistic, and social needs of the Arab minority in Israel.

Few studies have been conducted in the country about the integration of the Arab students in Jewish teacher training colleges, although it was more than a decade these colleges absorb Arab students. Teacher training in Israel is common for Jews and Arabs because of logistical reasons, such as income level, geographical proximity to Arab communities, but not for ideological reasons. Thus, training Arab students in Jewish colleges is the responsibility of the college, for developing the model which is suitable for the Arab trainees students [141]. Agbaria [28] noted that despite the large number of Arab students in Jewish teacher training colleges, the college did not yet open special programs for Jews, such as the study of Arabic and learning about multiculturalism and minorities in the country. In fact, for the first time, Jewish and Arab students meet as part of the learning in higher education institutions. Studies have examined the issue of multiculturalism in general and the topic of the existing dialog in particular, between teaching trainees who study in Israel. They found that in the groups in which students express identities, attitudes, social perceptions and relationships that reflect a high degree of alienation, especially among the Jewish majority. This alienation is expressed mainly in the absence of common ground on which to base connection and identify with it after, and maintaining social boundaries of each of the ethnic groups [174]. One study examined the possibility of adopting a multicultural approach in two teacher training colleges in Israel. The study found that Jewish students from the two colleges treated the Arab students with no tolerance for the "others" and held anti-democratic views. One of the colleges, one in which the percentage of Arab students higher, more exposed to racist attitudes. In the second college, more tolerant attitudes were found, were Jewish students willing to make changes in the curriculum and in everyday life in college (such as Arabic signs, holidays). The study revealed the desire of Arab students for social integration with their Jewish peers. They came to culture meetings with more positive attitudes [174].

Al-Haj [35] estimates that in the nineties there has been an improvement in the training of Arab student in teacher training colleges, but still no training that gives them the right amount of appropriate tools development of creative thinking, dealing with changing situations, work with parents and others. Academic training of Arab teachers, both in colleges and universities, is irrelevant to their cultural background and therefore an obstacle, which is perceived as one of the main factors that reduce the placing of the significant changes in the work patterns of the Israeli Arab teacher.

#### **1.4. Conclusions of the first chapter**

Analysis of the conceptual dimension of the learning context of Arab future teachers and the synthesis of the theoretical literature in this domain points out the important role of teacher training colleges for developing students' motivation. They are a major and influential body which affects teachers' personal and professional identity. The initial training of future teachers includes gaining practical experience, as well as theoretical and academic learning which aims to shape their identity as teachers. This training plays a significant role in the personal development of a tutor who, in turn, will play his role in the education of new generations. We noted that many educational and academic leaders are concerned about training teachers, properly and efficiently, in order to ensure and foster a generation of teachers and educators whom are able to deal well with the needs of the students in the school system.

Many Arab future teachers graduate each year from these academic teacher training colleges. When working in the field, they face a new and complex reality which they have to deal with. A rapidly changing reality which they, as beginner teachers, are active partners in shaping it. Their training environment and conditions were different from those at schools where they need to apply what they learned. Therefore, in our opinion, it is important to identify the cultural and national individuality of Arab future teachers as an indigenous minority in Israel. We consider that there is a need to address this individuality in the teacher training process itself. There is also a need for true partnership in the decision-making processes, in order to match their particularities. Moreover, from our point of view, it is very important and crucial to focus particularly on Arab future teachers studying at the Departments of Special Education, since they will be future teachers in this demanding and challenging domain. Therefore, their learning motivation during their initial training can play a crucial role and affect their professional and personal development. This can have deep implications on their ability as future teachers of children with special needs.

Arab schools reflect the educational toolbox that the students bring to higher education. Many scientific articles raised the issue that Arab school system does not fulfill its desired role. The outcome of this educational system has created a grim reality. Research should be done specifically on the impact of the Arab educational system on the development of Arab future teachers. Some of the Arab students turn for higher education to Arab teacher training colleges, and others to mixed colleges. These Arab students (future teachers) are characterized by their relatively young age. As a consequence, Arab students face more difficulties at higher education, and especially at the universities of the majority (mixed universities, i.e. Arabs and Jewish), and their achievements are lower than others. They face many difficulties and cultural differences; encounter with "the other" and dealing with the academic demands; coping with the Hebrew language, and English- academic language. These difficulties are extremely obvious and traumatic especially in their first year at higher education. In mixed colleges they have to adjust to a new learning environment in a pedagogical, cultural and psychosocial settings unlike their own, and this could affect their learning motivation. At the instructive level, future teachers must deal with language deficiencies while adjusting to differences between teaching methods used in Arab colleges and those used in mixed colleges.

In this study, future teachers' experience in a learning environment is not based solely on their experience in the classroom, but also on their general experience as students at a specific college which structures a holistic learning environment. This environment has rules, relations, structures and varied learning processes. The main assumption of this study is that this holistic experience affects future teachers' learning motivation. This study, therefore, deals with comparing future teachers' learning motivation in the Department of Special Education in two different types of academic teacher training colleges: Arab and mixed colleges. These colleges represent two types of holistic learning environments. Therefore, this chapter defined the population of Arab future teachers in Israel, their unique cultural and educational characteristics, and as well the Arab and mixed teacher training colleges. Only few academic publications dealt with Arab teacher training institutions. From our perspective, there is a need to improve the quality of curricula and teaching in Arab teacher training institutions, and in Arab tracks in mixed colleges. Moreover, there is a need to empower Arab lecturers and their involvement in research in their profession.

In our view, this complex reality requires understanding the influence of the particularities of a specific learning context on future teachers' learning motivation. The following chapter will present the theoretical background of learning motivation, and will concentrate on two major theories of motivation: self-efficacy theory derived from social

cognitive theory, and self-determination theory which is chosen as the theoretical framework of this study. This is followed by an interconnection between learning context and learning motivation among Arab students in general and Arab future teachers in particular.

## 2. THEORITICAL APPROACH FOR DEVELOPING LEARNING MOTIVATION OF ARAB STUDENTS FUTURE TEACHERS

### 2.1. Conceptual delimitations of learning motivation

The purpose of this chapter is to provide conceptual delimitations of learning motivation besides an overview of current research on college students' motivation. The theoretical basis for this chapter is presented through a review of the literature in the following areas: motivation in education, self-determination theory, and self-efficacy theory. Given the page limitations of the thesis, the review will not include all the different theoretical models and all the research literature on the topic. In fact, a review of all the different theories and models is not efficient at this point in the development of the understanding of college students' motivation. Hence, this chapter is organized around some general constructs that abbreviate different theoretical models; hopefully this current research will provide a conceptual framework that is useful for higher education researchers, college faculty, and college administrators and staff for minority students in general and Arab future teachers in particular. This research clearly focuses on college students' (future teachers) motivation concerning academic learning, in order to obtain better performances and higher achievements, and more qualified teachers.

There is clearly a renewed interest surrounding the study of motivation [110]. Human motivation is being more intensively studied today than ever before, and it is clearly obvious today that motivation is a central and essential concern including work, education, psychotherapy, and sport [153, p. 10]. Motivation represents one of the most important mysteries in science, besides its importance in the practical field.

**Definitions for Motivation-** Various definitions have been presented in the scientific literature. Although there is disagreement about the precise nature of motivation [170, p.4] an important theoretical theme of this discussion involves the division between actions that are intentional, and actions that are non-intentional. This dichotomy has been described in terms of personal versus impersonal causality, voluntary responding versus helplessness, and internal versus external locus of control [89].

Motivation is defined broadly by Ryan et al., [157, p. 197], as “that which moves people to act”, and it is determined by both the *energy* of the move and its *direction* [155; 157]. The origin of the word *motivation* comes from the Latin verb *movere*, which translates in English as “to move”. Motivations is what moves people to behave, something that gets us going, keep us working, and help us fulfill tasks [170]. According to the authors [155; 157] a person who feels activated toward an end, is considered motivated, whereas *amotivation*, which they refer to as

lack of energy or desire, can be found when an individual does not see the importance, benefit, or value of an activity, or when the individual is not interested in the activity. The second source of lack of motivation is lack of perceived competence [157] or positive efficacy beliefs [46], which both are essentially needed for an individual to act.

**Motivational Theories and Approaches-** The long history of motivational research has given rise to a large variety of different theories which have been presented in several review articles and books, (see [78; 92, p. 63-84; 102; 194; 195] for reviews of different motivational theories). Therefore, this section will not discuss all of these theories, but it will briefly present the historical background of motivation. This will be followed by a review of two major theories that explain the concept of motivation.

At the beginning of the twentieth century, motivation was not a separate topic of study as it is today but rather was ill-defined and fell under the purview of the newly emerging discipline of psychology. Views of motivation and psychology in general, were rooted heavily in philosophy [153, p.4; 170].

The first views have defined motivation in terms of will and volition. Another early view emphasized instincts that are reflected in behavior. Freud, a psychotherapist, defined motivation in terms of psychical energy, (see Freud, 1966 In [170]). Behaviorist emphasized the association of stimuli with responses, (see Thorndike's, 1913; Pavlov, 1927; Skinner, 1953 In [170]). Drive theories stress internal forces that seek to maintain homeostasis, (see Hull, 1943; Mowrer, 1960; Miller, 1963 In [170]). Other theories link motivation with level of emotional arousal (e.g., James-Lange theory). Psychological and humanistic theories suppose that qualitative inborn differences in psychological processes emerge with experience and development, (see Allport, 1937; Rogers, 1963 In [170]). Cognitive consistency theories focus on motivation as a result of congruence between behaviors and cognitions, (see Festinger, 1957; Heider, 1946 In [170]). Current theories examine the effect of motivation in achievement settings and the cognitive processes underlying motivation.

Researchers have used various motivational approaches such as expectancy-value theory by Eccles, Wigfield and their colleagues, e.g., [198; 200], goal theory, e.g., [133], and self-efficacy theory derived from social cognitive theory, e.g., [43; 44; 45; 45], and self-determination theory, e.g., [63, p. 11-40; 64] to examine the link between academic motivation and school performance.

Current perspectives of motivation differs in important ways, but they all share the following hypotheses: motivation involves cognitions; motivation depends on several complex factors such as: personality, social, and contextual factors; motivation is correlated with other

achievement outcomes such as learning, self-regulation, and performance; motivation is not stable, but rather changes with development; and also cultural, group and individual differences are reflected in motivation [170, p.248].

The following section will present two theories: self-efficacy theory derived from social cognitive theory, and self-determination theory view of motivation. The decision to choose these two theories in order to explain the concept of motivation is based on the examination of numerous studies that confirm validity of these theories in explaining motivation.

**Social Cognitive Theory and Self-Efficacy-** Social cognitive theory concentrates on the way people acquire knowledge, rules, skills, strategies, beliefs, and emotions through their interactions with observations of others. Social cognitive theory theorizes that behavior represents an interaction of the individual with the environment [170].

Bandura's social cognitive theory assumes triadic reciprocal interaction of: (1) personal factors; (2) behaviors and; (3) environmental influences. These factors interact and affect each other. According to Bandura, motivation is considered as goal-oriented behavior which is maintained by the individual's expectations of foreseen outcomes and their own self-efficacy for performing those actions. Self-efficacy is considered a key motivational process that impacts students' task choices, effort, persistence, and achievement [41].

Motivated learning is not about performing or completing a task but rather the motivation to acquire skills and strategies. Self-efficacy, at the beginning of a learning activity, differs among students mostly because of differences in personal characteristics, experiences and social support. In later stages of the learning activity, students' self-efficacy is impacted by task related variables. Self-evaluation of progress enhances self-efficacy and sustains motivation [41].

Social cognitive theory has been applied to self-regulation where the individuals systematically direct their cognition, behaviors and affects toward the achievement of their goals. Self-regulation assumes that student have some choice available during task engagement. Many researchers see volitional processes, which is of increasing importance, as mediating the relation between goals and goal-directed actions [170, p. 166, 167].

**Self-Efficacy Theory** derived from social cognitive theory of Albert Bandura, and it is a main area of interest in the research of motivation. Motivation is strongly related to how people see their abilities in particular situation [43]. Self-efficacy is a crucial variable affecting learning and motivation [46]; therefore it is an important factor in educational research. Bandura [44, p. 2] defined self-efficacy as “the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations”. Also Zimmerman [210] refers to self-efficacy as a performance-based measure of perceived capability.



**Academic Self- Efficacy** amongst students is defined as "the extent of a student's belief that he can organize and carry out needed behaviors and actions in order to attain the educational and academic performance that he considers desirable [209, p. 203]. Numerous studies have indicated that academic self- efficacy can endow to raising academic performance and academic motivation and achievements among students [57; 138; 143; 211; 212].

Zimmerman [208] studied self-efficacy in colleges. The researcher showed that perceptions of self-efficacy are one of the characteristics of effective learning that leads to academic success. He claims that successful students have more motivation and active involvement in learning than passive students. Students with effective learning style report more self-efficacy. Therefore, self-efficacy is a learning motivation and also a result of learning.

Also Skaalvik & Skaalvik, [177] indicate that in an educational environment, the self-efficacy of both teachers and students are important. The self-efficacy of students influences their achievements, while self-efficacy of teachers influences their teaching behaviors and as a result the motivation and achievements of their students. Therefore, self-efficacy is a significant predictor of students' motivation and learning [208; 210] and researchers have verified its discriminated validity as well as convergent validity in predicting common motivational outcomes.

### **The Development of Self-Efficacy among Students**

According to social cognitive theory people construct a perception of self- efficacy for themselves by way of processing information that comes to them from following resources, see Fig. 2.1 below [41; 46]:

1. Reconstructed personal experiences or past performances. Success raises the level of efficacy while failure lowers it. In the case of students, success in courses in previous institutions of learning can be considered successful personal experiences that may improve academic self- efficacy [41; 207].
2. Observing others' performance, learning experiences through the observation of models and learning by imitation of others is the second type of information source for self- efficacy [46].
3. Verbal persuasion, that is to say, persuasion throughout things one receives from others and that convince the learner of his ability to perform a task successfully. The power and control of persuasion lies in the persuader's knowledge, skills and reliability [42].
4. One's physiological and emotional state is the last information source. Tension, stress and anxiety are sometimes seen as indicators of a fear of failure, of inability, or of a lack of skill [45, 46].

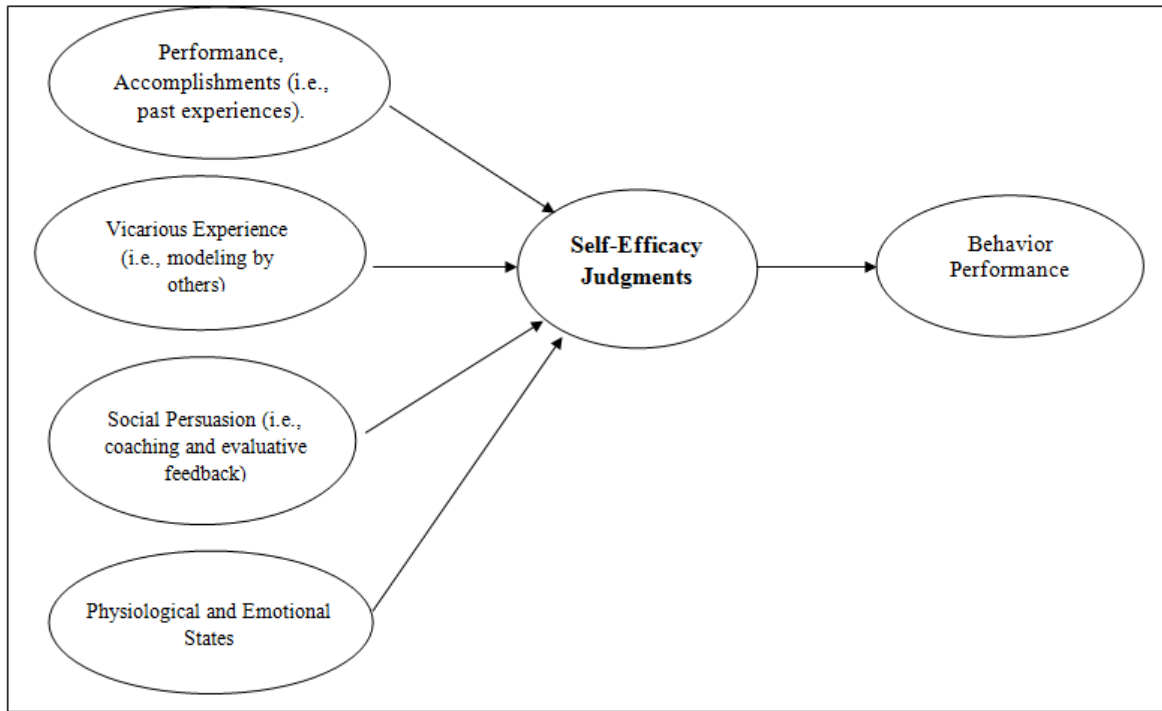


Fig. 2.1. Sources of Self-efficacy Information [219].

Self-efficacy focuses on the learner's personal beliefs as a vital component that can predict what a person will do with his or her knowledge and skills, and can also determine success or failure at a learning setting [46]. Other components of motivation such as self-image, anxiety or the value of a task, affect academic results; though, according to Bandura [46] their effect on academic performance derives mostly from the sense of confidence with which the learning approaches academic tasks. This claim by Bandura is supported by a considerable body of research.

Researchers have noted that the component of belief in one's self-efficacy in statistical models that contain additional motivation variables as well is the only such variable that has a direct effect on performance [211]. When people choose to enter into situations in which they expect to perform some activity successfully, the greater their sense of self-efficacy the more complex and difficult the situations that they are willing to face, or the more challenging the situations demanding a high level of performance that they dare attack [41, 46; 167; 219].

Self-efficacy affects the performance rate and the quantity of invested energy, effort and determination [41, 46; 47]. It also affects the prediction of the degree of interest in academic subjects, motivation and leaning among students [129; 143; 168]. These findings indicate that self-efficacy affects motivation and cognition through its influence on the extent of student

interest in the task, perseverance in its performance, the goals which students set for themselves, their choices and the way they use cognitive and meta-cognitive strategies for self-management.

Saada [159] examined the relation between self-regulated learning and teacher self-efficacy among Arab future teachers in Arab colleges. Findings have shown mixed trends in the results. A significant positive correlation was found between self-efficacy and learning (learning motivation) and personal teaching efficacy. However, the findings indicated lack of correlation between self-efficacy for learning and general teaching efficacy. These findings are consistent with previous studies that showed that students perceive their ability to cope with various academic tasks in light of their abilities as expressed in self-regulated learning, including persistence, planning and problem solving.

A perusal of the scholarly literature on self-efficacy gives the impression that the concept is significantly and positively correlated with many components of motivational behavior, thus possibly pointing to its importance as a critical predictor of motivational behavior and learning. The quantity of research on this topic clearly shows that self-efficacy plays a role in prediction and mediation between a number of ability components (for example, skill, knowledge, ability and previous knowledge) and achievements in the future [169].

A number of components have been studied in the context of motivational behavior. Previous studies on this subject did not produce consistent results. While some studies point to a rise in motivation with increasing "academic experience" [128] others found a reduction [82]. Such a mixed result was also found with respect to differences between freshmen and junior students of education [150]. In the study conducted by Saada [159] on Arab future teachers, juniors were found to be more motivated than freshmen and sophomores, but freshmen were found to have "a more motivational behavior" than sophomores. Another study that tested motivation and satisfaction among students of education in the course of their studies found that their satisfaction in their studies and the motivation to become teachers lessened between the first and second year of their training. On the other hand, their sense of efficacy for teaching remained high throughout all four years [171].

### **Self-Determination Theory**

In current research on student motivation, self-determination theory [63, p. 11-40; 154; 155; 67] is one model that has integrated both needs and social-cognitive constructs [142]. Therefore, this research choose to examine Arab motivation in relations to self-determination theory which is a potentially useful theoretical framework for understanding students' motivation [110; 111].

Over the past 3 decades, two researchers, Edward L. Deci and Richard M. Ryan, have developed a theory of human motivation, called self-determination theory (SDT). SDT identifies the core principles underlying sustainable motivation [e.g., see 63; 155]. It is one of the most comprehensive and empirically supported theories of motivation available today [170, p.248]. In fact, this theoretical perspective has generated a large amount of research in the field of education [see 69]. Recently, it has been used to better understand important educational outcomes such as dropout behavior [210; 190], personal adjustment in the school context [58; 179], as well as learning and school performance, see [83; 95]. Thus it will contribute to the provision of thorough and well-grounded answers to the research questions addressed in the present study.

SDT is mainly interested in promoting students' curiosity in learning, motivating them to grow their strengths and competencies and improving their level of wellbeing [158]. People are considered as having inherent and deeply evolved propensities to receive knowledge and develop new skills. However SDT argues that these natural propensities can be either supported or diluted within various social contexts. School and classroom strategies, including grades, evaluations, rewards and external pressures, are thus of particular interest within SDT as they influence the students' potential to learn and develop.

SDT distinguishes between *intrinsic motivation* and *extrinsic motivation* [63, p. 11-40; 154; 158]. Extrinsic Motivation is defined as the situation where a person does an action in order to fulfill his/her society expectations, avoid sanctions or comply with external control. In other words, it describes an activity done for its instrumental value. On the other hand, Intrinsic Motivation is the term describing the cases where individuals are involved in certain activities because of their personal interests and pursuit of satisfaction [155].

Deci and his colleagues [69] did not settle with a simple dichotomous definition of extrinsic and intrinsic motivation. Instead, they defined a continuous process in their attempt to analyze internalization. According to their new definition, “internalization is a process of transferring the regulation of behavior from outside to inside the individual”. This process is necessary for the regulation of extrinsically motivated behaviors, being consistent with the process of transformation of social norms into personal values [63]. The process of moving from external to internal regulation involves several levels defined according to Deci and his colleagues [69] as:

- ***External-regulation:*** factors and circumstances outside the individual which affect their motivation;

- **Introjected-internal regulation:** where the individual feels that he/she should or has to behave in a certain way;
- **Identified-internal regulation:** which is based on the utility that the individual expects to gain from a specific course of action (e.g. as given by the authors: studying hard to get grades to get into college);
- **Integrated- regulation:** based on what the individual considers valuable and important.

Even though the integrated level is self-determined, it still does not reflect intrinsically motivated behavior. Intrinsic motivation only occurs when the individual autonomously controls his or her behavior, which may not be the case even at the integrated level of regulation [199]. future teachers with intrinsic motivation tend to engage in teaching because they enjoy it and they get satisfaction from performing teaching related actions. future teachers with identified motivation are considered to be more autonomous than teachers with external or introjected motivation but they are not as fully autonomous as those with intrinsic motivation [123].

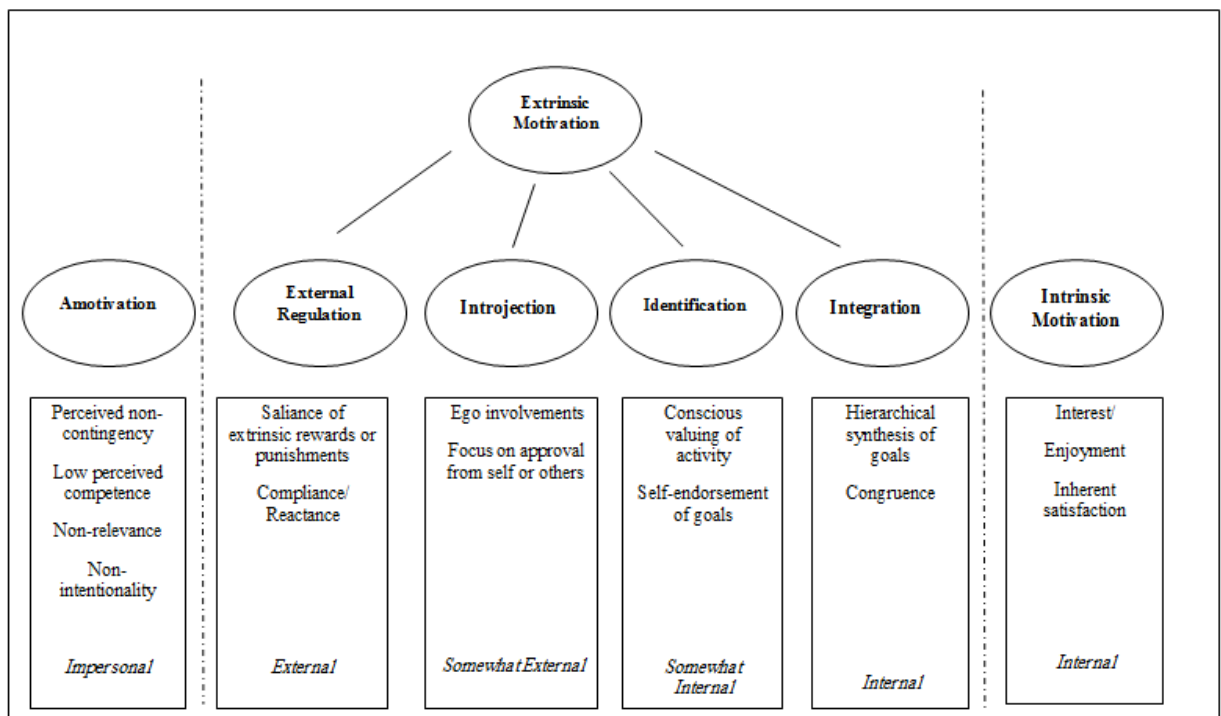


Fig. 2.2. Taxonomy of Human Motivation [155].

### Autonomous and Controlled Motivation

The multidimensional view of SDT motivation distinguishes the quantity, amount, or strength of motivation from the quality or type of motivation. This conceptualization of the different aspects of motivation is a quite exceptional feature of the theory. Currently, popular motivation theories, including self-efficacy theory [42] and expectancy-value theory [e.g., 78]

consider motivation to be a unitary, quantitative theoretical construction and propose that a higher amount of motivation should lead to more optimal outcomes. As opposed to the predictions and evaluations of the above theoretical scheme, SDT suggests that higher levels of motivation do not necessarily lead to more favorable outcomes; the quality of motivation determines the outcomes of one's motivation, for example if the motivation is controlled rather than autonomous in nature, then the expected outcome could be of poor quality [154].

Autonomous regulation involves experiencing a sense of full volition and freedom of choice. Autonomous regulation is when a course of action is felt to be personally important and compatible with the individual's core values. Such a behavior is expected to emerge from the individual's true sense of self, thus being considered as self-determined. In contrast, controlled regulation involves a person feeling pressured or coerced by an external force. When being under control, a person responds to external stimuli on the basis of his or her rigid beliefs that he or she should act as expected. In this sense, individuals feel that they are obliged to do so in order to feel worthy. They could also behave in a certain way because of their expectations of future threats or rewards from external agents [202].

Within SDT, extrinsic motives are further differentiated into those that are *controlled* versus those that are more *autonomous*. SDT-based research has always demonstrated that more autonomous forms of motivation are related with a mass of positive outcomes from better academic performance, creativity, and persistence, to enhanced learner wellbeing. SDT suggests that within the social context, autonomous motives, as well as the energy and engagement that they induce, are supported by widely accepted notions regarding *autonomy*, *competence*, and *relatedness*. In this view, the effects of classroom events such as examinations, teacher feedback, or the introduction of a new curriculum on students' motivation are determined by the *functional importance*, or meaning of these events with respect to these three basic needs [154].

**Human needs-** The main tenets of SDT focus on human beings having three inherent psychological needs (PN): relatedness, competence and autonomy [63; 64; 65; 66; 67]. It is assumed that although the factors of basic need satisfaction may be culturally specific, the importance of supporting basic needs holds across all cultural groups [65]. *Relatedness* refers to the need to feel related to others and have the reassuring sense of belonging to a social group. In the case of teacher-student relationship, supporting relatedness means providing acceptance, respect, and a feel of caring to the students [63]. *Competence* is the need to feel that one is effective in performing the requisite actions. Competence and self-efficacy are closely similar while it is clear that many students manage or fail to develop self-efficacy within a given educational setting [77]. *Autonomy* refers to the need to express one's authentic self and to feel

that this self is the source of action. Autonomy is not synonymous to independence or total freedom, but rather it refers to an internal acceptance of, and engagement with, one's motivated behavior. *Supporting autonomy* means taking the student's perspective under consideration by providing a set of alternatives, encouraging them to make a free choice, or being able to providing the students with a meaningful rationale when choosing is not an option [63]. According to SDT these three needs, when satisfied, promote psychological well-being [81]. Essentially, satisfaction of autonomy and competence needs is necessary in order to maintain intrinsic motivation. This view is contrary to what is theorized by self-efficacy theory [42] which rejects functional significance of autonomy. Thus, students who feel competent, but not autonomous, will not maintain intrinsic motivation for learning. Many experimental studies have supported the SDT claim that both autonomy and competence are required for intrinsic motivation to be preserved [135].

Several studies have analyzed the relationship between these three human needs and types of motivation [58; 65; 69; 135; 154]. If those three needs are satisfied, an individual's motivation, growth and well-being will be enhanced. In contrast, if the three needs are not supported, motivation, growth and well-being will be diminished [65]. In other words, the satisfaction of these PN will result in the formation of a complex set of motives, ranging from intrinsic to extrinsic [135].

**Autonomy support-** SDT emphasizes the importance of the environment in satisfying the three basic needs: autonomy, relatedness and competence. While other theories have highlighted the importance of relatedness and competence, SDT specially concentrated on the need for autonomy [118, p. 253]. Several studies were conducted on autonomy support in academic setting, see [89; 118; 196].

SDT is an approach to human motivation in which autonomous motivation is deemed essential for optimal functioning. Autonomous motivation refers to the experience of choice in initiating behavior. Teachers are autonomously motivated when they perform their job for the intrinsic value of achieving meaningful and interesting goals or because they personally grasp the value of their work activities. Previous research has documented the positive effects of autonomy on motivation, and especially with regard to students' intrinsic learning motivation. Constant results across diverse samples such as elementary school children and learning disabled children indicate that intrinsic motivation is better among children who had positive styles of interaction, and had autonomy-supportive interaction with their parents and teachers. In other words, adults that encouraged children to decide, select and start activities, and were less

controlling and seemed to help endorse mastery rather than a performance orientation toward learning [69; 94; 95; 179].

Humans have a need to be autonomous and engage in activities because they want to [170, p.248]. The concept of autonomy support contained within self-determination theory [63] describes a person in an authority role (e.g., a lecturer, a pedagogical supervisor) taking the other's (e.g., the student's) perspective, acknowledging the other's feelings and perceptions, providing the other with information and choice, and minimizing the use of pressure and control [201].

In several recent studies, self-determined motivation has been linked to various educational outcomes across the age span, from early elementary school to college students. Some of these studies [e.g., 60; 188] have shown that students who had more self-determined forms of motivation for doing schoolwork were more likely to stay in school than students who had less self-determined motivation.

More precisely, this theory makes an important distinction between self-determined and controlled types of motivation. Thus, SDT focuses not only on the quantity of motivation but also on the quality [63].

Students are naturally interested creatures who have a natural love of learning and who desire to internalize the knowledge, customs, and values that surround them. These evolved tendencies to be curious, interested, and to seek coherence in one's knowledge would seem to be resources that could be embedded by educators as they conduct learning and development. However, too repeatedly educators set up external controls, close supervision and monitoring, and evaluations accompanied by rewards or punishments into learning climates to guarantee that learning occurs. Essentially, such practices reflect both external pressures on teachers and/or the beliefs of instructors that motivation is better shaped through external contingencies of reinforcement than by facilitating students' inherent interests in learning. Under such controlling conditions, however, the feelings of interest, joy and enthusiasm that once accompanied learning are frequently replaced by experiences of anxiety, boredom, or alienation. This condition creates a self-fulfilling prophecy which is obvious in many educational settings, where students are no longer interested in the materials taught, and teachers must externally control students to 'make' learning occur [135].

**Motivation in higher education-** Garcia and Pintrich [85] studied the effects of autonomy on motivation and the performance in the context of a college classroom. They found that autonomy, while not directly facilitative of higher course grades, strengthened intrinsic goal orientation, task value, and self-efficacy. The research provides further support for the benefits



of fostering autonomy within academic settings. The results College students' motivation, similar to that of the elementary school students, was positively affected by the experience of autonomy. The college students, who felt their instructors was autonomy supportive by allowing students to taking part in course policy-making, reported higher levels of motivation at the end of the semester. Perceptions of autonomy had positive effects not only on intrinsic motivation, but also on task value and self-efficacy. It was shown that experiences of classroom autonomy in the college classroom are more closely related to motivational factors than to performance. Although the direct experience of autonomy could not be directly facilitative of high course grades, autonomy does seem to promote intrinsic goal orientation, task value, and self-efficacy, all of which are critical components of "continuing motivation", see Maehr, 1976 In [85]. By promoting autonomy and self-determination in the college classroom, instructors may not see instant improvements in performance. But instead, they may find students taking extra courses in the subject area, more interest in the materials, and greater persistence in facing difficulty which will lead to higher grades and better performance [85].

Promoting autonomy among college students does not mean surrendering to chaos or to complete student control. Nor does cultivating self-determination require a remarkable disruption in course structure [85]. In Garcia & Pintrich [85] research on the effects of autonomy on motivation and performance in the college classroom the measure of classroom autonomy included a series of questions asking students about the extent of choice they had in choosing paper topics and of readings and about the extent to which students were able to discuss and make an opinion on course policies with the instructor. These events are not hard to apply and seem worth the effort, given the positive motivational consequences that follow. The research data show that the starting point levels of motivation are the strongest predictors of last point levels of motivation, indicating that a great deal of students' motivation is established before their enrollment in the course. Nevertheless, perceptions of autonomy did forecast late semester motivation, above and beyond the effects of starting point levels of motivation, suggesting that what happens in the college classroom does impact upon motivation. Definitely, enhancing a sense of autonomy and self-determination in a college classroom may reduce cynicism and disrespect repeatedly found between college students in large lecture classes. Furthermore, it is difficult to nurture student-instructor relationship that promote students' motivation when the instructor is responsible for a large amount of students; though, by allowing students' participation in the decision-making process, he or she can construct an atmosphere within which students sense that the instructor does care about what they have to contribute to the course even if the teacher does not know the student personally [85].

The impact of socializers' (especially parents and teachers) who provides social environments that allow the individual (adolescents and students) to satisfy their PN for autonomy and relatedness has been confirmed [134]. "Socialization is the process through which individuals learn and internalize the social percepts and mores that allow for effective functioning in society" Maccoby, 1984 In [134]. SDT [63] view of socialization underlines natural orientation towards growth and development which is energized and continued, in part, by the fulfillment of the PN for autonomy, competence, and relatedness. This natural tendency towards engagement and internalization with social values is considered an important basis of healthy development, characterized by the tendencies towards variation of personal and social structures and their integration into a coherent, unified, healthy sense of self [154]. Developments in the individuals and in social contexts have been found to affect individuals' phenomenological experiences and to endorse the internalization of values, attitudes, and regulatory processes [134].

There is a growing body of literature that shows how the affective relationships teachers have with students impact students' motivation and achievement in school. Teacher's emotional support of students produces higher school-related perceptions of competence, clearer positive social and academic goals, and readiness to take on school activities. Research measuring support from all three kinds of socialization agents (teachers, peers, parents) shows that teacher support is mainly important for academic motivation and adjustment [153].

Wentzel [197] noted that works showing how teacher-student relations impact student achievement, to a great extent, tested relations and discussed mixture of designs and measurement issues that should be considered in future research. These incorporate the complexity of these relations and the need to examine students' impact on teachers beside teachers' impact on students. As well, researchers need to take the "nested" nature of these relations into consideration; teacher-student relations occur in complex classroom settings (e.g. the meeting between Arab students and Jewish teachers is a meeting with the "other", that is to say encounter between two cultures; two languages) and the kinds of relations teachers have with individual students is probably influenced by the relations they have with others in their classes. Wentzel [197] argued that there is a need for a clearer understanding of the mechanisms underlying these relations of teacher emotional support and students' motivation and achievement. This topic, for my best knowledge, was not tested on a college sample, and among the specific Arab population.

Researchers working within the framework of SDT suppose that teachers' behaviors and practices have a considerable impact on students' feelings and engagement in learning.

According to SDT there are three general groups of teachers' behaviors and practices: autonomy support, competence support, and relatedness support. Studies confirm that teachers' practices and the educational settings that satisfy these PN increase students' motivation, achievement, and well-being [94; 95; 120]. In accordance with the results of the studies above, applying the principles of SDT to the classroom setting can help teachers provide students choices that are motivating.

Williams & Deci [201] applied self-determination theory in two studies with second year medical students in an interviewing course. Results of the first study indicated that students with a more autonomous orientation had higher psychosocial beliefs at the beginning of the course and reported more autonomous reasons for participating in the course. Additionally, students who perceived their instructors as more autonomy -supportive became more autonomous in their learning during the course. The second study indicated that students who perceived their instructors as more autonomy-supportive became more autonomous in their learning, which in turn accounted for a significant increase in both perceived competence and psychological beliefs over the 20-week period of the course, more autonomy support when interviewing a simulated patient 6 months later, and stronger psychosocial beliefs 2 years later.

Black & Deci [53] also applied self-determination theory to examine the effects of students' course-specific self-regulation and their perceptions of their instructors' autonomy support on regulation and academic performance in a college-level organic chemistry course. The study revealed that students' reports of entering the course for relatively autonomous (vs. controlled) reasons predicted higher perceived competence, interest, enjoyment and lower anxiety and grade-focused performance goals during the course also were associated to whether or not the students dropped the course; and students' perceptions of their instructors' autonomy support predicted increases in autonomous self-regulation, perceived competence, and interest, and decreases in anxiety over the semester. The transform in autonomous self-regulation in turn predicted students' performance in the course. Additional, instructor autonomy support also predicted course performance directly, although differences in the initial level of students' autonomous self-regulation moderated that effect, with autonomy support relating strongly to academic performance for students initially low in autonomous self-regulation but not for students initially high in autonomous self-regulation [53].

Filak & Sheldon [81] study suggests that by allowing students to learn in their own way (autonomy), by providing them with the tools to succeed (competence), and by defusing or removing authoritarian barriers (relatedness), instructors can give their student an interesting, challenging, and intrinsically motivating educational experience. Most students, regardless of

how much they might obsess their grade-point average, want to learn from, and enjoy, their classes.

Pintrich & Zusho [146] also studied the student motivation and self-regulation learning in the college classroom. They indicated that motivation and self-regulation have important roles to take part in college student learning and achievement. Students who feel effective about their ability to learn and to do the work are more expected to be engaged and to perform better. Similarly, students who are focused on learning, mastery, and self-improvement are more likely to be involved in learning and to do better. A third facilitating factor of engagement and achievement is task value with students who think the material is interesting, important, and useful more likely to be engaged and learning. Classroom context factors as well influence student motivation and cognition.

Researchers have shown difference in the sense of teaching efficacy has been found between in-service teachers and future teachers. These differences imply that in-service teachers' sense of efficacy may have dropped as a result of experiencing obstacles in the teaching profession reality. A further insinuation is that future teachers' sense of teaching efficacy can be influenced by contextual factors such as student attitudes toward the support and cooperating of teachers and relationship with peer pre- service teachers, and other interpersonal relationships with staff and with students' families; the education curriculum, the practical work in the field, the school environment [123, p. 69].

It is important to note that there are some important theoretical and substantive differences among different expectancy constructs, such as self-efficacy, perceptions of competence, and expectancy for success from self-efficacy, self-worth, self-determination, and expectancy-value theories, but the general principle remains the same. Students who believe they are able and that they can and will do well are much more likely to be motivated in terms of effort, persistence, and behavior than students who believe they are less able and do not expect to succeed [46; 79; 145]. There is also an excellent proof to suggest that these confident students will also be more cognitively engaged in learning and thinking than students who doubt their capabilities to do well [e.g., 141].

Several essential conclusions can be drawn from findings on intrinsic motivation. First, both teachers' orientations and specific aspects of learning tasks that are perceived as autonomy supportive are beneficial to students' intrinsic motivation, but controlling educational climates weaken intrinsic motivation. Second, students have a tendency to improve their learning and are more creative when intrinsically motivated, mainly on tasks requiring theoretical understanding. Third, the way of introducing the learning tasks by the teachers impacts students' satisfaction of

the basic PN for autonomy and competence, thus either allowing intrinsic motivation to flourish and deeper learning to occur, or thwarting those processes [135].

Kim & Cho [123] study investigated how future teachers' (students in teacher training colleges) motivation and their sense of teaching efficacy influence their expectation about reality shock during the first year of professional teaching. The results indicated that the future teachers' expectation of reality shock was negatively related to teacher efficacy and intrinsic motivation while it was positively related to introjected and external motivation. The results also exposed that future teachers' sense of efficacy and introjected motivation were strong predictors of their expectation of reality shock, when gender difference was controlled for. There was an interaction effect between intrinsic motivation and teachers' sense of efficacy in predicting the reality shock expectation.

## **2.2. Interconnections between the learning context and learning motivation of Arab future teachers**

Many beginner teachers experience reality shock and varying degrees of stress during their first years of practicing the teaching profession. Studies have shown that teachers in the early stage of their teaching career experience a higher teacher turnover rate than do mid-career teachers [118; 123]. These beginner teachers' reality shock is associated with the significant nonconformity between theories and practices, unforeseen obstacles forced by the teaching environment, the complex role of the teacher, and the heavy workload [123]. These studies have revealed that beginner teachers feel overwhelmed or frustrated when they find significant discrepancies between what they envisioned as student teachers and what they are actually experiencing during their first year of professional teaching. These discrepancies lead to unexpected reality shock during the first year of teaching, resulting in higher teacher attrition among beginner teachers and further problems in the effectiveness of education [132]. Very few research studies have been conducted regarding the extent to which future teachers expect to experience reality shock during the first year of professional teaching. Therefore, investigation of precursors of future teachers' expectation of reality shock is necessary, next to their implications, in order to propose and plan effective teacher education programs. This is, so that future teachers can be better prepared and adapt to their new teaching environments [123]. Retaining quality teachers is enormously important for achieving excellence in education, (see Darling-Hammond, 1999 In [123]). The failure to educate efficient teachers has often been attributed to insufficient implementation of advanced teacher preparation curricula by teacher education programs, (see Johnson & Birkeland, 2002 In [123]). It is critical to prepare Arab future teachers to effectively

deal with challenges in the real context of teaching, and also to decrease beginner teachers' experience of reality shock, and increase their motivation in order to adjust and adapt efficiently.

Halabi [215] examined the status of Arab students at the Hebrew University in Jerusalem. The study population consisted of 25 Arab students studying at the Department of Education in 2007-2006 from 35 Arab students in the department learned that year (a total of 120 students attended the department). The study dealt with the question how the students feel on campus, how to relate to the environment- Jewish students, faculty teaching and administration. The specific case study discusses some of the issues which are widely discussed in recent years- the integration of minority students within the campus of the majority, the issue becomes even more important in multi- cultural or multi - cultures. Many studies have been made in this context, around the integration of African American students at universities of "white" in the United States. In most African studies student are experiencing more learning difficulties and socially integrating with white students, and subsequently discussed the issue of feasibility studies or joint institution involved. The issue as a whole is one aspect of a broader question that concerns the social scientists in recent years - the integration of minorities in the modern nation-state. Especially true regarding minorities in Europe and the United States. The research topic is a reflection of the issue of the integration of Arabs in Israel or relations between Arabs and Jews in Israel. Many studies have been conducted and there are diverse and conflicting opinions. The results revealed a grim reality, not to say sad. It turns out that the Arab students feel isolated and ostracized, they experience the period of study difficult and unpleasant that they should move to achieve the desired degree. The student's initial experience of the culture is shocking, beyond the sphere of the unknown and foreign language literally. On this experience and in addition to the initial shock, the dominant experience of students is an experience of exclusion and even ignoring them completely. Many of them described themselves as see but not seen. Many reported feeling of unwelcome guests, and even hostile attitude towards them, especially during periods of conflict. Rejection which students encounter on campus causes them to withdraw into themselves, connect to their national identity and to emphasize in public sphere an act of protest and defiance. Most students report that they are facing tough times, especially in their first year at the university, and they face it by the solidarity between them and the rest of the Arab students on campus, and the constant reinforcement they receive from their parents. Some describe the survivability in hostile system as "somoood", a term which is more appropriate to describe the state of a war, expressing steadfastness to the enemy as a sign of heroism and survival [215].

Another study of Lev-Ari & Laron [127] examined the attitudes of undergraduate students and teaching certificate students to multi-cultural education and its place in the teacher

education program. The findings support the state that Israel's social and cultural construction, in addition to its sector-based educational system encourages a particular approach to multi-cultural education. Here each sector focuses on its own culture, with very little exposure to the culture of other social groups. Besides, the study exposed an increase in students' claim for multicultural education in training for future encounter with the multicultural reality of their field of work. This tendency may generate reconsideration of college based Israeli teacher education programs concerning multi-cultural education on the campus serving as a socialization agent. As well it may impact future implementation of multicultural components within the Israeli educational system, as part of multicultural educational reform.

The importance of motivation among students in academic settings is becoming well established [149; 153, p. 466]. Several researchers discussed this issue (for further information look for [183; 144; 170]). Schunk and his colleagues [170, p. 40] indicate that motivation and the factors that affect motivation change with age and human development. Thus for optimization of students' motivations, teachers should understand the motivational influences for the various age groups. Ryan [153, p. 474] predicts that it may be easier to change students' motivation when they are younger, before long-term patterns of failure and avoidance set in for children performing poorly at school. However, because some motivation problems emerge later we need effective interventions for middle and high school students as well. Therefore, several studies took into consideration the importance of studying students' motivation also in higher education levels, e.g., [50; 60; 188]. For example, Williams & Deci [201] examined the internalization of biopsychosocial values by medical students: a test of self-determination theory. Also Black & Deci [53] studied the effects of instructors' autonomy support and students' autonomous motivation on learning organic chemistry. An additional study held by Filak & Sheldon [81] examined the student psychological need satisfaction and college teacher-course evaluations.

Motivation can also vary as a function of culture and socioeconomic characteristics. For example, Schunk et al. [170, p. 297-298] indicate that socio-economic and cultural influences play an important role in students' motivation. Moreover, attitudes, beliefs, and practices of cultures must be investigated and examined to determine the cause of these differences. The authors emphasize that once reliable difference is found in motivation among students from different cultures, the students may benefit from programs aimed at enhancing academic motivation.

Nevertheless, nearly no studies were found that focused on the motivation of Arab students in higher education as a minority in Israel. Several studies dealt with attitudes and expectations of Arab trainees; Jewish-Arab relations and multicultural education in higher

education, motivation in choosing the teaching profession, achievement and academic performance, comparison and difficulties of new teachers, see [22; 25; 26; 29; 30; 31; 34; 36; 37; 70; 71; 72; 73; 108; 140; 159; 172; 186; 187] but did not examine the effects of these conditions on the Arab students' learning motivation. Most of these researches did not address issues of motivation or emotion and how these factors might facilitate or constrain learning.

The only research which examined directly the Arab future teachers' learning motivation was published by Agbaria [32]. He examined the correlation between self-efficacy and the extent of participation in choosing the teaching profession as predictors of academic motivation among Arab female students. The study was conducted among Muslim Arab female students, in an Arab college of education. The findings indicated that positive correlations exist between the extent of participation and self-efficacy on the one hand, and academic motivation on the other. Given the cultural influences relevant to motivation, the findings from past studies on motivation cannot be generalized for Arab student population which forms a minority in the Israeli society, without confirmation that these constructs, instrumentation, and relationships function similarly in the Arab population and society. In accordance with the results of the studies discussed above - in the first chapter of this literature review, it is crucial to understand the effect of these conditions on the learning motivation in order to be able to improve students' well-being, responsibility, and achievements.

### **2.3. Conclusions of the second chapter**

In this chapter an analysis of the theoretical framework for enhancing the learning motivation was conducted, including a conceptual delimitations of learning motivation. Also a summary of the existing knowledge on motivation, with concentration on two major and basic theories of motivation: self-efficacy theory, derived from social cognitive theory, and self-determination theory is provided. This analysis brought proof of the substantiation of the shortage in research on the interconnections between the learning context and learning motivation of Arab future teachers.

We identified the following gaps in this domain:

(1) Most previous research on motivation in general has tended to focus on younger learners at schools. Motivation changes with age and human development, and thus cannot be extended to college students. Nearly no studies were found that focused on the motivation of Arab students in higher education as a minority in Israel. Previous studies dealt mainly with attitudes and expectations of Arab trainees; Jewish-Arab relations and multicultural education, challenges in higher education, motivation in choosing the teaching profession, achievement and



academic performance, comparison and difficulties of new teachers, but did not examine the effects of these conditions on Arab students' motivation. Most of these studies did not address the topic 'motivation' and how these conditions might facilitate or constrain learning;

(2) Given that cultural influences are relevant to motivation, the findings from past studies on SDT cannot be generalized for Arab student population which forms a minority in the Israeli society. This minority is also characterized as a collective society.

(3) No comparison has been made between the motivation of Arab future teachers studying in Arab colleges to those studying in mixed colleges. Arab colleges were rarely included in previous studies;

(4) No intervention program was developed or implemented previously on this unique population.

In order to fulfill these gaps, this study will address the following issues

(1) Investigate the influence of the psychosocial and pedagogical learning context (mixed vs. Arab colleges) on developing learning motivation among Arab future teachers;

(2) Bring the voices of Arab future teachers in both types of learning contexts;

(3) Take into consideration the social-cultural context of this unique indigenous minority and its effect on students' motivation;

(4) Take into consideration the effect of different variables on autonomous and controlled learning motivation. This includes basic variables such as the socio-demographic characteristics, and other variables which are considered important for this specific study and specific learning context (Arab and mixed colleges): Hebrew fluency, future teachers' choices of college type and Special Education Department (CCSE), autonomy support, relatedness, competence, program evaluation and attitudes toward teaching;

(5) Examine whether the positive effects of autonomy support, relatedness, competence on motivation would be replicated in a college sample;

(6) Help developing insights on the effects of various factors (from those mentioned in issue 4) on learning motivation, and help understanding which factors have more significant effect on Arab future teachers' autonomous and controlled motivation;

(7) Suggest and implement an intervention program for enhancing learning motivation, and arousing the autonomous motivation among Arab future teachers.

I belong to the Arab minority in Israel; therefore I am aware of its' unique social-cultural context. I personally went through the challenges of the Arab student in higher education, however I succeeded to overcome these challenges. Nowadays, I am a member of the academic staff in teacher training colleges. Being part of this minority, I want to continue to learn and

explore from proven successes, in order to improve the education in the Israeli- Arab society. This research can contribute to a comprehensive understanding of the reality of Arab future teachers in order to build support-systems that help improve their achievements and facilitate their motivation and learning. The results of this research are expected to contribute in drawing guidelines to the profession of lecturers and pedagogical instructors of Special Education and provide self-criticism to their work in order to empower their role in it. Moreover, the importance of this research lies in revealing and showing if there are significant differences in the motivation among Arab future teachers who learn in two different contexts: Arab and Mixed colleges. The research will also try to identify the factors that significantly affect future teachers' motivation, design and implement an adequate intervention program.

### **3. EXPERIMENTAL FRAMEWORK FOR ENHANCING THE VALUE OF PSYCHOSOCIAL AND PEDAGOGICAL CONTEXT IN ORDER TO DEVELOPE LEARNING MOTIVATION OF ARAB STUDENTS FUTURE TEACHERS**

#### **3.1. Diagnosis of current Arab future teachers' learning motivation in different psychosocial and pedagogical contexts**

At both types of colleges participating in this proposed study, the lack of motivation in general, and the intrinsic motivation in particular seems to be similar to that described in previous studies [31, p.75; 142, p. 731-732]. Therefore, **the aim of the research** is to provide a theoretical and methodological foundation of the influence of psychosocial and pedagogical learning context on the learning motivation. It is a comparative research between Arab students in Arab-oriented, Arabic-speaking colleges of education (teacher training colleges), and Arab students in Jewish-oriented, Hebrew-speaking colleges. In this proposed research the latter college will be referred to as a mixed colleges (multicultural colleges) compared to the first, Arabic colleges. The research will focus on students in Special Education Departments, they will be referred as Arab future teachers.

**Main Research Question:** Is there an influence of the psychosocial and pedagogical learning context on developing learning motivation among Arab future teachers for Special Education. This Investigation will be examined in two different types of academic teacher training colleges: Arab and mixed colleges.

#### **Quantitative Questions:**

1. Do the autonomous and controlled motivation differ between future teachers from mixed colleges and those from Arab colleges?
2. Do the variables of interest significantly explain the two types of motivation?
3. Does the college type affect the relationship between the variables of interest and the two types of motivation (moderation)?

#### **Qualitative Questions:**

**Main qualitative question:** What factors in the learning context future teachers experienced as influencing their learning motivation?

#### **Secondary qualitative questions:**

1. What are the factors that promoted future teachers' choices of college type and Special Education?
2. What are the factors that hindered future teachers' choices of college type and Special Education?

**Main Intervention Objective:** developing intervention program and examining if there is an effect of the in intervention on future teachers' motivation.

### **Intervention Questions**

1. Do the two groups (treatment and control) differ at T1 and T2, i.e. is there an Intervention Effect?
2. Do the two groups (treatment and control) differ in their responses overtime, i.e. is there a Time\*Intervention Interaction?

### **Research Methodology**

The research is a mixed method research paradigm [117]. The methodology chapter will be presented as follows: firstly (3.1.) the quantitative part of the research; secondly (3.2.) the qualitative part; and finally (3.3.) the intervention program and the post questionnaires results.

**Research Goal:** The purpose of this study is to examine the influence of the psychosocial and pedagogical learning context on developing learning motivation among Arab future teachers in Special Education Departments.

**Participants:** 353 Arab future teachers were included in this study attending courses in the four largest teacher training colleges in the center of Israel: two Arab colleges and two Arab sections in mixed colleges. 92.6 % of the respondents are females and the rest 7.4 % are males. I choose “Special Education Department” as a baseline for comparison and as a convenience sample since I’m a lecturer and pedagogical instructor in two of these departments. The study program in the Department of Special Education is four years, potential participants were asked to participate in the research (about 400 future teachers based on data received from the students' authorities in the participated colleges).

This research applied mixed method research paradigm, a quantitative and qualitative approaches as follows:

1. *Quantitative research method-* validated questionnaire. Several statistical methods that was found to be appropriate were used to analyze the collected data of the study.
2. *Qualitative research method-* this study used focus groups (FGs) interviews, which relies on a group approach. Constructivist qualitative research study problems usually arise from the real world. Problems arise from field observations, dilemmas and questions of real life, and they are integrated in early conceptual perspective [176].

### **Quantitative Method:**

#### **Predictor (Independent) Variables:**

- *Student background characteristics:* Socio- demographic: gender, age, current marital status, current household income, permanent residence, father's education, mother's education, religion, religiosity, current study year at the department, work.
- *Level of Hebrew fluency:* Roer-Strier & Haj-Yahia [151] refer to the language barrier as a major barrier to Arab students.
- *Students' (Future teachers) choices (CCSE):* Choosing the College (cultural characteristics of the college- Arab vs. mixed college), and choosing the Department of Special Education.
- *The three PN:* Autonomy support, competence, and relatedness. Previous research has provided evidence in favor of the positive effects of autonomy and self-determination on school children and on differentially abled learners [e.g., 69; 179] The suggested research presented here will attempt to further support hypothesis of the benefits entailed in fostering autonomy, competence and relatedness among the ethnic group under analysis within the academic setting.
- *Program evaluation:* The students' evaluation of the Special Education program they attend.
- *Attitudes toward the teaching profession:* The students' attitudes toward the teaching profession.

**Outcome Variables:** Two dependent variables: autonomous motivation and controlled motivation. The level and type (autonomous versus controlled) of motivation were tested.

**Moderator Variable (interaction):** The learning context has been identified and given an operative name "college type", which is Arab colleges vs. mixed colleges.

Following the main research question mentioned above, the **Main Research Hypotheses** is that there will be a significant influence of the psychosocial and pedagogical learning context on developing learning motivation among Arab future teachers in two different types of teacher training colleges: Arab and mixed colleges.

Following the quantitative research questions mentioned above, the **Quantitative Research Hypotheses** are:

1. The students in the Arab colleges will have higher levels of motivation and higher levels of autonomous motivation than controlled. The minority students face more difficulties at the universities where Israeli students are the majority. In addition, their achievements are lower than the others [203]. It seems that Arab students face many

challenges by the time they enter the university. As a result, they experience more pressure than Jewish students [205].

2. Different variables of interest will significantly explain the evolution of students' motivation.
3. College type will be a significant moderator of the manifestation of both type of motivation.

**Theoretical Model:** the flow chart below (Fig. 3.1.) illustrates the pre-statistical model that summarizes the following hypotheses:

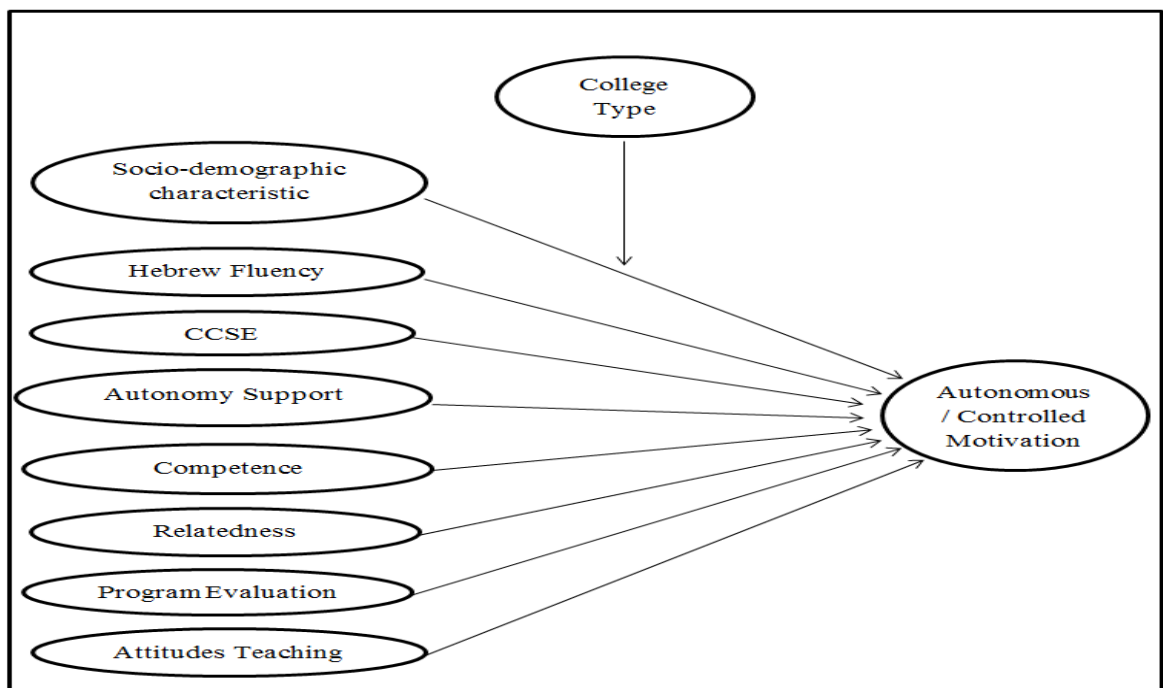


Fig. 3.1. The pre-statistical model of the study

The quantitative theoretical model proposed in this study to examine Arab future teachers' motivation, both in Arab and mixed colleges (at the baseline level) consists of two levels:

1. A micro level in which the effect of each of the following variables of interest on students' autonomous and controlled motivation was examined in each college type separately: socio-demographic characteristics, Hebrew fluency, future teachers' choices of college type and Special Education Department (CCSE), autonomy support, relatedness, competence, program evaluation and attitudes toward teaching.
2. A macro level in which the effect of the college type (as a moderator) on the relationships between all the above variables and the two types of motivation was examined.

**Instruments, procedure and steps of the methodology is divided as follows:**

The following chart (Fig. 3.2.) demonstrates the research steps:

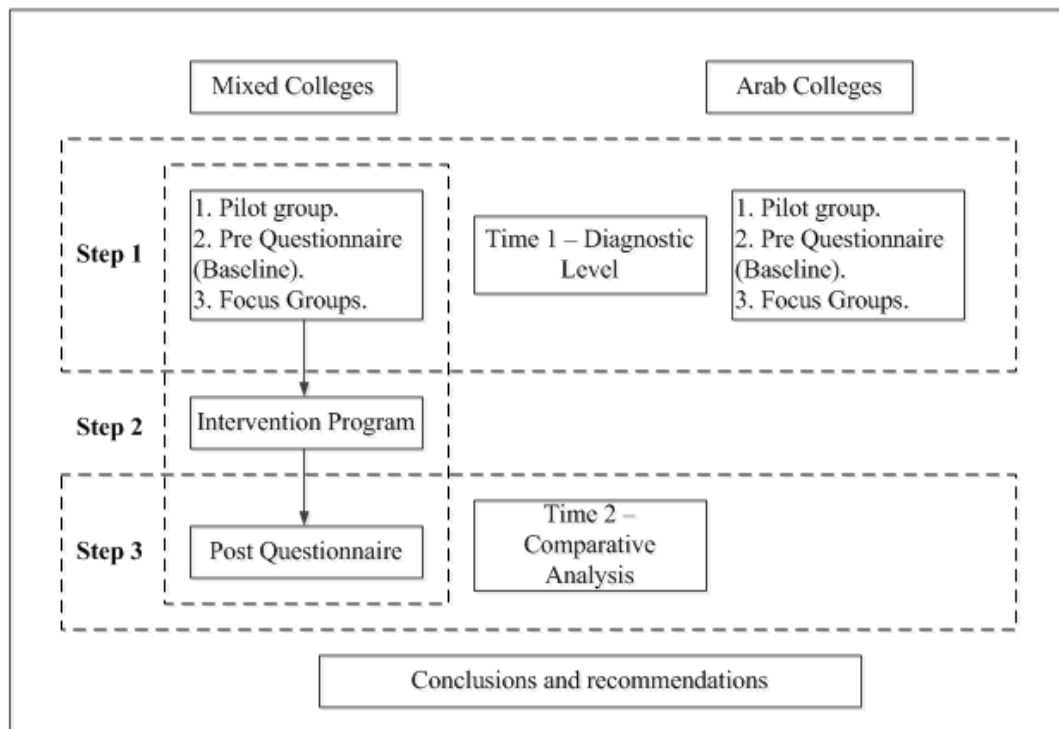


Fig. 3.2. The research steps

**First step: Experts and pilot:** Research questionnaire were formed using validated questionnaires. Experts and researchers in teaching training and motivation field were consulted in order to check the suitability and to test the content, the phrasing and translation of the questions, in order to make sure the questions are clear and understood. After receiving the experts approval and making repairs in accordance, questionnaires were passed to a pilot group of 18 students in the Department of Special Education. Moreover, after filling the questionnaires the students were asked about questions and sentences that were not clear enough for them. The pilot provided significant inferences that further improved the content and phrasing of the questionnaire. The students who participated in the pilot group were not included in the pre-questionnaire.

**Research pre-questionnaire and FGs:** Research questionnaire were passed to two groups: Arab students in Special Education Departments in Arab colleges and Arab students in the Arab sections of Special Education Departments in mixed colleges. After receiving an answer from the chief scientist of the ministry of education in Israel, and the approval of the Head of the Unit for Research and Evaluation in each college the questionnaires were handed out

to the students during lectures. The data were collected on a voluntary basis. Pre-questionnaires (Time 1) were distributed during January 2014, as a baseline, then a quantitative analysis was done in order to analyze the baseline. An explanation of the purpose of filling out the questionnaires were given to the students and stressed the fact that the questionnaire would remain anonymous and that the data would be used only for the purposes of the study. Data were collected through a general questionnaire as detailed below which is based on a voluntary basis. Students were informed that they will be asked to fill another questionnaire (post questionnaire) (see Appendix 2).

In addition to the pre-questionnaire, FG<sub>s</sub> were held between November 2013- January 2014, which lasted more than was planned because of time constraints and compatibility with the students. FG discussions [137, p. 339-340] are a form of group interview that capitalizes on communication between research participants in order to generate data. Although group interviews are often used simply as a quick and convenient way to collect data from several people simultaneously, FG<sub>s</sub> explicitly use group interaction as part of the method. This means that instead of the researcher asking each person to respond to a question in turn, people are encouraged to talk to one another: asking questions, exchanging anecdotes and commenting on each other's experiences and points of view [124]. FG discussions are carefully designed discussions on distinct areas or topics. Group dynamics are used to explore and make clear views that might otherwise be less accessible or evident in the context of individual interviews [137]. Findings from FG discussions with students were analyzed using content analysis. Qualitative analysis using content analysis and identifying major issues that distribute to subcategories of content [176].

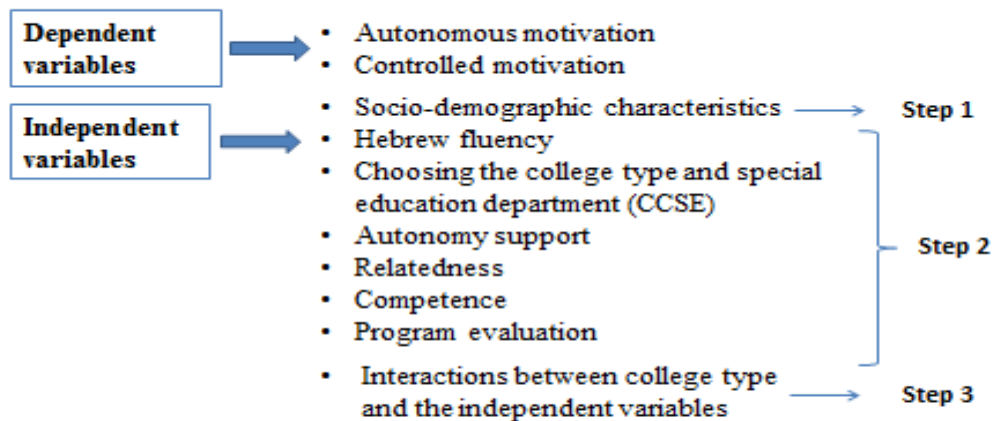
***Second step- Intervention program:*** Next phase included planning, building and implementing the intervention program. The research and the intervention program based on SDT [63; 154]. The intervention program was implemented in a small group which focused on the satisfaction of the three PN that increase autonomous learning motivation- supporting autonomy, relatedness and competence. Intervention meetings were held between March 2014- June 2014.

***Third step- Post questionnaires and conclusions:*** Were distributed in June 2014, in order to determine whether there is a change following the intervention program.

The following chart (Fig. 3.3.) demonstrates the methods of data analysis:



➤ **Quantitative Analysis of the Baseline : Multiple Hierarchical Regression**



- **Qualitative analysis:** Was done using content analysis of texts received from open-ended questions in the questionnaire about students' choices and from focus groups.
- **Quantitative Analysis of the Post questionnaire: Repeated Measures Analysis.**

Fig. 3.3. Methods of data analysis

**The Questionnaire Development Process:** The questionnaire consists of several parts as described below. The final version went through the process of four versions of processing and translation as well as proofreading and editing, in addition, adjustment to the Special Education Department. The questionnaire was read by three judges (researchers) experts in the field of teacher training and in the field of motivation for the purpose of examining content validity; and were passed to a pilot group, as mentioned above, the comments were taken into account in the final version. The questionnaire was translated to Arabic and Hebrew languages, and the students had the choice to choose the language which they want to fill in the questionnaire (see Appendix 3 for List of the Cronbach alpha of each part of the questionnaire).

**Structure of the questionnaire:** The questionnaire is divided into eight parts. It includes closed questions on the psychosocial and pedagogical aspects of the learning motivation at the college from the perspective of students, and two open questions on the students' choice of college and Special Education Department. Students were asked to answer the questionnaire at two planned points of time: before and after the intervention program. Thus, for this purpose students were requested to write the last five numbers of their ID number, in order to be able to link the data of the two questionnaires of both phases of the study. The questionnaire is anonymous, and it is detailed in the beginning that the information collected is for research purposes only. Also, it is clarified that there are no right or wrong answers, the student must

choose the appropriate response to his present situation, and it is very important to answer honestly. The estimated needed time to complete the questionnaire is about 20 minutes. It took approximately 20–25 minutes for the students to complete the questionnaires.

**The questionnaire is divided as follows:**

**1. Background Variables & Hebrew Fluency:** Gender, age, current marital status, current household income, permanent residence, father's education, mother's education, religion, religiosity, current study year at the department, work. In addition to this part question on self-assessment in Hebrew fluency: This question was constructed for the purpose of this research and contains four statements that rate from 1 to 5, where 1 means "not at all true" and 5 means "very much true". Statements checking the level of student mastery of reading, writing, understanding and speaking ( $\alpha= 0.93$  for Hebrew Fluency) (see Appendix 2 Part A).

**2. Choosing the College and the Department of Special Education (CCSE):** This section was built for this research and contains four statements that rate from 1 to 5, where 1 means "not at all true" and 5 means "very much true" ( $\alpha= 0.77$ ) (see Appendix 2 Part B1-4). Also, another two open questions that asks about the students' choice of college and choice of Special Education Department, that were analyzed in quantitative methods (see Appendix 2 Part B5-6).

**3. Autonomy Support- Experience with the lecturers in college:** The Learning Climate questionnaire in SDT mentioned above. The questionnaire is available in two versions: a short version that includes six items and a long version that includes 15 items. In this study the short version were used, but the original scale was reduced from (1-7) to (1-5). Rank from 1 to 5, where 1 means "not at all true" and 5 means "very much true". The questionnaire focuses on the need for autonomy that is one of the three PN that are central in SDT. The questionnaire is generally used for specific learning situations, such as a learning domain, at colleges or universities. Questions about support for the autonomy of the individual lecturer or all faculty members or instructors (e.g., "Most of the lecturers convey confidence in my ability to do well in the courses"). The questionnaire was translated into Hebrew and Arabic version, and adapted to the Special Education Department program ( $\alpha= 0.87$ ) (see Appendix 2 Part C) [220].

**4. Competence:** A second basic need in SDT. The questionnaire of Perceived Competence for Learning Scale includes four items about the sense of the term learning competence which is a term parallel to the concept of self-efficacy. This questionnaire is in English; therefore it was translated to Hebrew and Arabic and adapted to the program of the Special Education Department. In addition, the original scale was reduced from (1-7) to (1-5). The student is asked to rate the degree of consent with the statements from 1 to 5, where 1 means

"not at all true" and 5 means "very much true" (e.g., "I feel confident in my ability to learn the materials of the courses"), ( $\alpha = 0.89$ ) (see Appendix 2 Part D) [220].

**5. Relatedness:** A third need of the three PN in SDT [65]. The questionnaire is Basic Psychological Need Scales-Basic Need Satisfaction at Work -was used in, see In [81]. The items that belong to the sense of belonging (8 items) were selected from the questionnaire designed to test the three PN in the workplace, because there is no such questionnaire in the field of learning. The Items were slightly modified for the purpose of the study. Also, Items were translated into Hebrew and Arabic language. The student are asked to rate the degree of consent with the statements from 1 to 5, where 1 means "not at all true" and 5 means "very much true" (e.g., "I get along with students at college"), (negative was reversed;  $\alpha = 0.84$ ) (see Appendix 2 Part E) [220].

**6. Learning Self-Regulation -Active participation in Special Education courses:** This questionnaire, in English, from the SDT of Deci and colleagues [69]. Questionnaire includes 12 original statements that rate from (1-7), but cut back to the original scale (1-5) to match the scale of the questionnaire and the general tendency to avoid extreme and random distribution of the answers. It has a scale of 1 to 5, where 1 means "not at all true" and 5 means "very much true". This questionnaire concerns the reasons why people learn in particular settings such as a college or medical school course. It asks three questions about why people engage in learning-related behaviors. This questionnaire was formed with just two subscales: Controlled Regulation (Controlled Motivation) and Autonomous Regulation (Autonomous Motivation). Thus, the responses that are provided are either controlled (i.e., external or introjected regulation) or autonomous (identified regulation or intrinsic motivation). Four of these reasons were being considered autonomous (e.g., "I participate actively in the courses of Special Education because a solid understanding of the materials is important to my ability to practice Special Education profession"), and eight were considered controlled (e.g., "I will participate actively in the courses of Special Education because others might think badly of me if I didn't."). The validation was done only at the level of the two "super" categories.

The scale has two slightly different versions that were developed for use in a study conducted in a medical school course referred to as Organ Systems, in which students learn to do medical interviewing, see [201]. The scale was adapted slightly for college students learning organic chemistry, see [53]. The questionnaire can be adapted as needed to refer to the particular course or program being studied; therefore the items were slightly modified for the purpose of this study. This questionnaire was adapted for the proposed research students in the Department

of Special Education, and was translated into Hebrew and Arabic version (Autonomous regulation  $\alpha= 0.74$ ; Controlled regulation  $\alpha= 0.70$ ) (see Appendix 2 Part F.) [220].

**7. Evaluation of training in the Department of Special Education:** This part of the questionnaire contains 13 statements that rate from 1 to 5, where 1 means "not at all" and 5 means "very much". These statements were taken from the questionnaire of Peleg & Raslan [140], and were adapted to the Special Education Department for the research needs (e.g., "The Department of Special Education training highlights the importance of pedagogical training and practical experience in schools"). The questionnaire is in Hebrew and was translated into Arabic version ( $\alpha= 0.90$ ) (see Appendix 2 Part H.)

**8. Attitudes towards the teaching profession:** This part of the questionnaire contains 10 statements that rate from 1 to 5, where 1 means "not at all" and 5 means "very much". These statements were taken from the questionnaire of Peleg & Raslan [140] (e.g., "Teaching is an intellectual challenge"). The questionnaire is in Hebrew and was translated into Arabic version ( $\alpha= 0.86$ ) (see Appendix 2 Part I.)

**Ethical Considerations:** In accordance with the rules of ethics accepted for studies in Israel, in the education field, a request was sent, before beginning the study, to the Chief Scientist in the Ministry of Education requesting approval to undertake the study in the chosen teacher training colleges. The Counsel of the Chief Scientist responded and informed me by mail that due to new resolutions adopted during the last period, there is no need for permission of the Chief Scientist for collecting data from students in colleges (including student in teacher training colleges). If necessary, a request should be sent to the Ethics Committee in the chosen colleges for confirming data collection. Therefore, a request for approval of data collection was sent to the Head of the Unit for Research and Evaluation in the four chosen colleges. Meeting were done with some, and others were contact by e-mail. The approved research proposal and the questionnaire, along with the outline of the FG was sent for their review. After a relatively long process an approval was received from the colleges, along with the condition of three of them to conceal the names of the participating colleges which is necessary to eliminate the name of colleges in order not to create any stigma.

After receiving the approval a contact was made with the head of the Special Education Departments in each of the four participating colleges. Meetings with them aimed to explain about the research, and organize the distribution of the questionnaires in classes, and also finding potential participants for the FGs.

Before handing questionnaires and before beginning FG<sub>s</sub> an explanation about the research and its goals, privacy and anonymity were guaranteed. Throughout the study no mention of students' names and the names of the colleges (except specifying the college type).

### **Description of the Colleges**

In the context of the present study, the learning experience is not based solely on the students' involvement in the classroom but on their general experience as students at a specific college constituting a holistic learning environment with specified rules and relations, as well as various learning processes. The main assumption of this study is that this holistic experience affects students' learning motivation. For this purpose, the students' learning motivation is analyzed in two different types of teacher training colleges, representing different holistic learning environments, on a comparative basis: two Arab and two mixed colleges.

Similar colleges of each type were selected in terms of various parameters related to the college characteristics such as same region in the country, college size and religiosity. The parameters of each college were examined prior to the classification in order to ensure there exists the similarity in their characteristics necessary to make the categorization meaningful and valid. No significant differences were obtained between the two types of colleges in the variables of interest.

The questionnaires were analyzed using Microsoft Excel 2007 and SPSS (Version 19.0). 368 students responded and filled the questionnaire. A frequency analysis was performed to ensure that none of the values was missing or out of range. It was found that 15 had missing values and were eliminated from the sample. Thus, 353 surveys became the sample analyzed for this study. Table 3.1. below is a list of the research variables type and domain.

**Table 3.1. List of the research variables type and domain**

<b>Variable</b>	<b>Type</b>	<b>Domain</b>
Gender	Nominal	{male, female}
Age	Ordinal	{up to 20, 21-25, 26 or over 26}
Marital Status	Nominal	{single, married no children, married with children}
Income	Ordinal	{up to 4,000; 4,000-7,000; 7,000-10,000; 10,000-13,000; over 13,000 }
Residence	Nominal	{Arabic city, mixed city, Arabic village}
Father Education	Ordinal	{primary school, secondary school, academic}
Mother Education	Ordinal	{primary school, secondary school, academic}
Religion	Nominal	{Muslin, Christiane, Druze}
Religiosity	Ordinal	{religious, traditional, secular}
Current Study Year	Nominal	{first, second, third, fourth}
Work	Nominal	{no, yes}

Hebrew Fluency	Scale	{ 1 very low fluency- 5 very high fluency }
CCSE	Scale	{ 1 constraint choice - 5 free choice }
Autonomy Support	Scale	{ 1 feeling no support at all- 5 feeling autonomy supported }
Competence	Scale	{ 1 feeling no competence at all- 5 very much competence }
Relatedness	Scale	{ 1 feeling no relatedness at all- 5 very much related }
LSR Autonomous Motivation	Scale	{ 1 low autonomous motivation - 5 high autonomous motivation }
LSR Controlled Motivation	Scale	{ 1 low controlled motivation - 5 high controlled motivation }
Program Evaluation	Scale	{ 1 negative evaluation- 5 positive evaluation }
Attitudes Towards the Teaching Profession	Scale	{ 1 negative attitudes- 5 positive attitudes }
College Type	Dummy	{ 0 Arab colleges, 1 mixed colleges }

### Descriptive statistics of the two college types:

The sample consists of 353 (26 male and 327 female) future teachers for Special Education both in Arab and mixed colleges. The majority of participants were aged between 21 and 25 years (63.4%). An alpha level of .05 was used for all statistical tests. The following figures present the distribution in Arab and mixed colleges and errors bars: 95% CI.

**Gender:** The frequencies of gender are similar in both college groups ( $N = 353$ ), and the majority of the students are females.

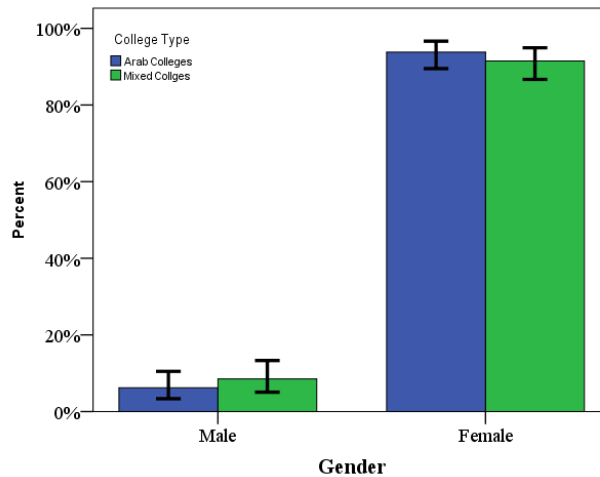


Fig. 3.4. Gender distribution in each college type.

A chi-square test of independence was performed to examine the relation between gender and college type. The relation between these variables was not significant ( $\chi^2_{(1)} = 0.689$ ,  $p = 0.407$ ).

**Table 3.2. Gender statistics (a) cross tabulation; (b) chi-square tests; (c) symmetric measures**

<b>(a) Gender * College type cross tabulation</b>						
Count						
		College type		Total		
		Arab Colleges	Mixed Colleges			
Gender	Male	11	15	26		
	Female	166	161	327		
Total		177	176	353		
<b>(b) Chi-Square Tests</b>						
		Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square		.689 <sup>a</sup>	1	.407		
Continuity Correction <sup>b</sup>		.392	1	.531		
Likelihood Ratio		.691	1	.406		
Fisher's Exact Test					.424	.266
Linear-by-Linear Association		.687	1	.407		
N of Valid Cases		353				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.96.						
b. Computed only for a 2x2 table						
<b>(c) Symmetric Measures</b>						
		Value	Approx. Sig.			
Nominal by Nominal	Phi	-.044	.407			
	Cramer's V	.044	.407			
N of Valid Cases		353				

**Age:** Previously there were 6 categories in this variable (as shown in Appendix 2), however because of limited observations in some of these categories, similar categories were merged. As shown in Fig. 3.5. More students in the ages 26 and above were found in mixed colleges, and more students in the ages up to 20 were found in Arab colleges. However in the most frequent age range (21-25) nearly no differences were found in the frequencies in both groups of college ( $N=353$ ).

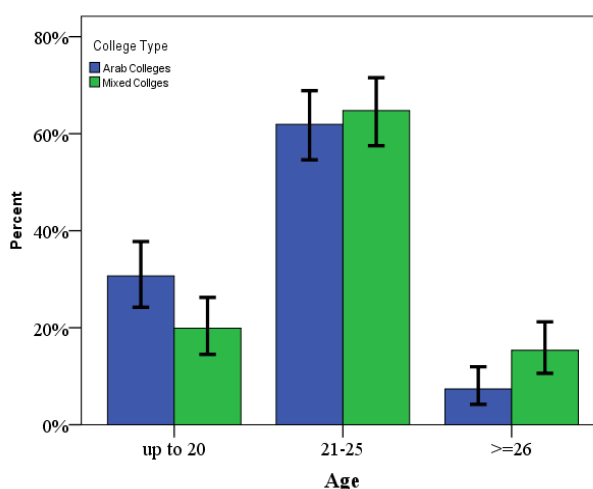


Fig. 3.5. Age distribution in each college type.

**Table 3.3. Age statistics (a) cross tabulation; (b) chi-square tests; (c) symmetric measures**

<b>(a) Age * College Type Cross tabulation</b>					
			College Type		Total
			Arab Colleges	Mixed Colleges	
Age	up to 20	Count	54	35	89
		% within Age	60.7%	39.3%	100.0%
		% within College Type	30.7%	19.9%	25.3%
	21-25	Count	109	114	223
		% within Age	48.9%	51.1%	100.0%
		% within College Type	61.9%	64.8%	63.4%
	>=26	Count	13	27	40
		% within Age	32.5%	67.5%	100.0%
		% within College Type	7.4%	15.3%	11.4%
Total		Count	176	176	352
		% within Age	50.0%	50.0%	100.0%
		% within College Type	100.0%	100.0%	100.0%
<b>(b) Chi-Square Tests</b>					
		Value	df	Asymp. Sig. (2-sided)	
Pearson Chi-Square		9.068 <sup>a</sup>	2	.011	
Likelihood Ratio		9.205	2	.010	
Linear-by-Linear Association		8.888	1	.003	
N of Valid Cases		352			
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 20.00.					
<b>(c) Symmetric Measures</b>					
		Value	Approx. Sig.		
Nominal by Nominal	Phi	.161	.011		
	Cramer's V	.161	.011		
N of Valid Cases		352			

A chi-square test of independence was performed to examine the relation between age and college type. The relation between these variables was significant ( $\chi^2_{(2)} = 9.068$ ,  $p = 0.011$ ). The correlation is weak ( $r_c = 0.161$ ,  $p = 0.011$ ).

**Marital status:** Previously there were 5 categories in this variable (as shown in Appendix 2), however because of limited observations in some of these categories, similar categories were merged. As shown in Fig. 3.6. most of the students are single (unmarried/widow/widower), and nearly no differences in the frequencies of the students' marital status were found in both groups of colleges ( $N = 353$ ).



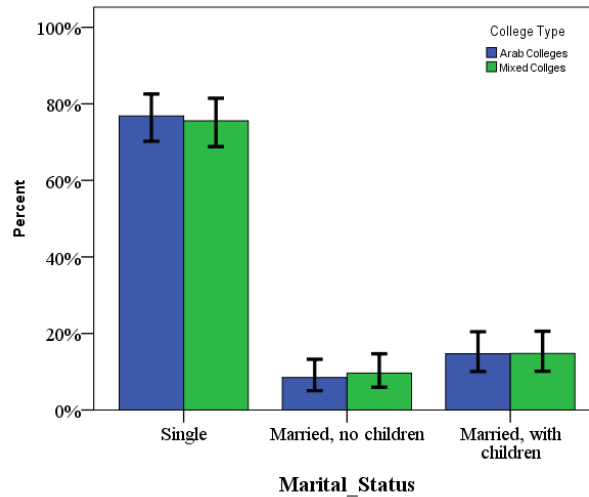


Fig. 3.6. Marital status distribution in each college type.

A chi-square test of independence was performed to examine the relation between marital status and college type. The relation between these variables was not significant ( $\chi^2_{(2)} = 0.156$ ,  $p = 0.925$ ).

**Table 3.4. Marital status statistics (a) cross tabulation; (b) chi-square tests; (c) symmetric measures**

<b>(a) Marital Status * College Type Cross tabulation</b>					
		College Type			Total
		Arab Colleges	Mixed Colleges		
Marital Status	Single	Count	136	133	269
		% within Marital Status	50.6%	49.4%	100.0%
		% within College Type	76.8%	75.6%	76.2%
	Married, no children	Count	15	17	32
		% within Marital Status	46.9%	53.1%	100.0%
		% within College Type	8.5%	9.7%	9.1%
	Married, with children	Count	26	26	52
		% within Marital Status	50.0%	50.0%	100.0%
		% within College Type	14.7%	14.8%	14.7%
Total		Count	177	176	353
		% within Marital Status	50.1%	49.9%	100.0%
		% within College Type	100.0%	100.0%	100.0%
<b>(b) Chi-Square Tests</b>					
	Value	Df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	.156 <sup>a</sup>	2	.925		
Likelihood Ratio	.156	2	.925		
Linear-by-Linear Association	.030	1	.862		
N of Valid Cases		353			
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.95.					
<b>(c) Symmetric Measures</b>					
		Value	Approx. Sig.		
Nominal by Nominal	Phi	.021	.925		
	Cramer's V	.021	.925		
N of Valid Cases		353			

**Family income:** Most of the frequencies (nearly 56%) of the students in both college categories have a family income between 4000-10,000 Israeli Shekel a month ( $N=344$ ).

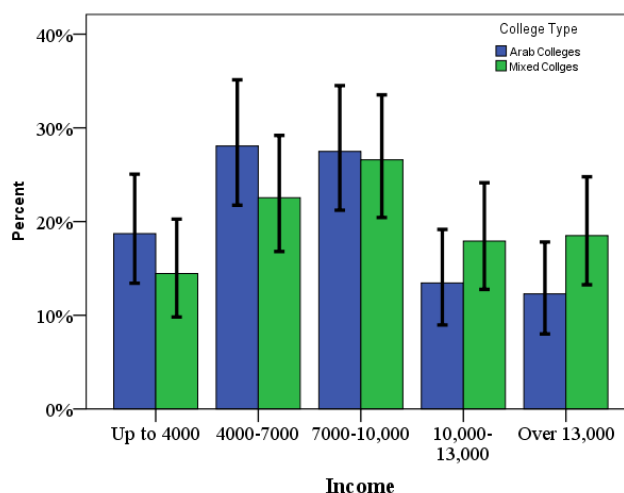


Fig. 3.7. Income distribution in each college type.

A chi-square test of independence was performed to examine the relation between student family income and college type. The relation between these variables was not significant ( $\chi^2_{(4)} = 5.258, p=0.262$ ).

**Table 3.5. Income Statistics (a) cross tabulation; (b) chi-square tests; (c) symmetric measures**

<b>(a) Income * College Type Cross tabulation</b>					
		College Type		Total	
		Arab Colleges	Mixed Colleges		
Income	Up to 4000	Count	32	25	57
		% within Income	56.1%	43.9%	100.0%
		% within College Type	18.7%	14.5%	16.6%
	4000-7000	Count	48	39	87
		% within Income	55.2%	44.8%	100.0%
		% within College Type	28.1%	22.5%	25.3%
	7000-10,000	Count	47	46	93
		% within Income	50.5%	49.5%	100.0%
		% within College Type	27.5%	26.6%	27.0%
	10,000-13,000	Count	23	31	54
		% within Income	42.6%	57.4%	100.0%
		% within College Type	13.5%	17.9%	15.7%
Over 13,000	Count	21	32	53	
	% within Income	39.6%	60.4%	100.0%	
	% within College Type	12.3%	18.5%	15.4%	
Total		Count	171	173	344
		% within Income	49.7%	50.3%	100.0%
		% within College Type	100.0%	100.0%	100.0%
<b>(b) Chi-Square Tests</b>					
	Value	df	Asymp. Sig. (2-sided)		
Pearson Chi-Square	5.258 <sup>a</sup>	4	.262		
Likelihood Ratio	5.283	4	.259		
Linear-by-Linear Association	4.906	1	.027		

N of Valid Cases		344	
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 26.35.			
<b>(c) Symmetric Measures</b>			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.124	.262
	Cramer's V	.124	.262
N of Valid Cases		344	

**Residence:** Most students in Arab colleges (nearly 60% live in Arabic villages. While nearly 37% live in Arab city. Similarly, most students in the mixed colleges (multicultural) colleges live in Arabic villages or cities. Only minority of Arab future teachers from mixed cities attend both types of colleges.

**Table 3.6. Residence statistics (a) cross tabulation; (b) chi-square tests; (c) symmetric measures**

<b>(a) Residence * College Type Cross tabulation</b>					
		College Type			Total
		Arab Colleges	Mixed Colleges		
Residence	Arabic city	Count	65	61	126
		% within Residence	51.6%	48.4%	100.0%
		% within College Type	36.7%	34.7%	35.7%
	Mixed city	Count	7	32	39
		% within Residence	17.9%	82.1%	100.0%
		% within College Type	4.0%	18.2%	11.0%
	Arabic village	Count	105	83	188
		% within Residence	55.9%	44.1%	100.0%
		% within College Type	59.3%	47.2%	53.3%
Total		Count	177	176	353
		% within Residence	50.1%	49.9%	100.0%
		% within College Type	100.0%	100.0%	100.0%
<b>(b) Chi-Square Tests</b>					
		Value	Df	Asymp. Sig. (2-sided)	
Pearson Chi-Square		18.724 <sup>a</sup>	2	.000	
Likelihood Ratio		20.062	2	.000	
Linear-by-Linear Association		1.045	1	.307	
N of Valid Cases		353			
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 19.44.					
<b>(c) Symmetric Measures</b>					
		Value	Approx. Sig.		
Nominal by Nominal	Phi	.230	.000		
	Cramer's V	.230	.000		
N of Valid Cases		353			

A chi-square test of independence was performed to examine the relation between residence and college type. The relation between these variables was significant, ( $\chi^2_{(2)} = 18.724$ ,  $p < 0.0001$ ). The correlation is weak ( $r_c = 0.230$ ,  $p = 0.000$ ).

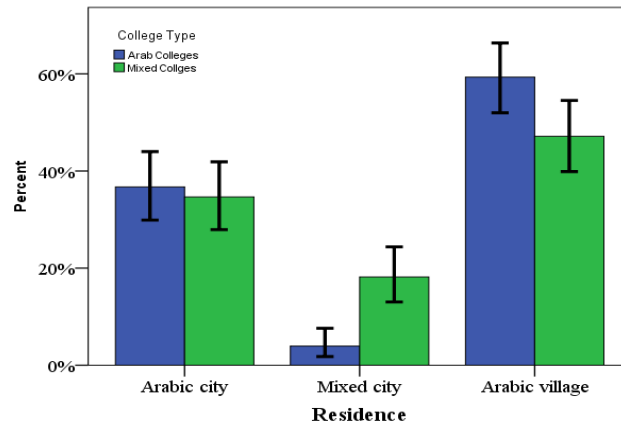


Fig. 3.8. Residence distribution in each college type.

**Fathers' education:** Most fathers of the students in the mixed and Arab colleges at least finished secondary school (70% in Arab colleges compared to 84% in the mixed colleges). Less fathers of the students in mixed colleges finished only primary school compared to almost double number of fathers' of students in the Arab colleges that finished only primary school education.

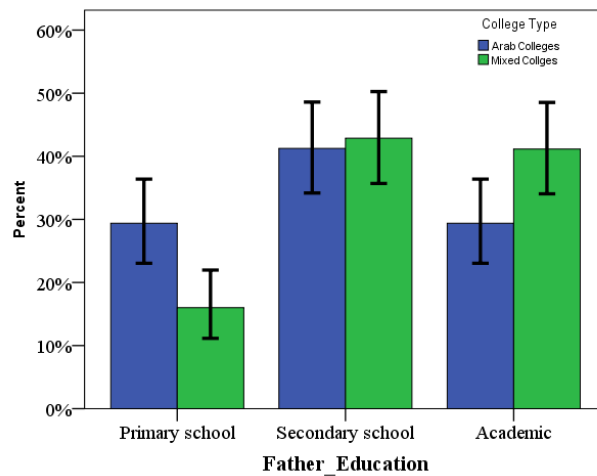


Fig. 3.9. Fathers' education distribution in each college type.

A chi-square test of independence was performed to examine the relation between fathers' education and college type. The relation between these variables was significant, ( $\chi^2_{(2)} = 10.442$ ,  $p=0.005$ ). The correlation is weak ( $r_c = 0.172$ ,  $p= 0.005$ ).

**Table 3.7. Father education statistics (a) cross tabulation; (b) chi-square tests; (c) symmetric measures**

<b>(a) Father Education * College Type Cross tabulation</b>					
			College Type		Total
			Arab Colleges	Mixed Colleges	
Father Education	Primary school	Count	52	28	80
		% within Father Education	65.0%	35.0%	100.0%
		% within College Type	29.4%	16.0%	22.7%
	Secondary school	Count	73	75	148
		% within Father Education	49.3%	50.7%	100.0%
		% within College Type	41.2%	42.9%	42.0%
	Academic	Count	52	72	124
		% within Father Education	41.9%	58.1%	100.0%
		% within College Type	29.4%	41.1%	35.2%
Total		Count	177	175	352
		% within Father Education	50.3%	49.7%	100.0%
		% within College Type	100.0%	100.0%	100.0%
<b>(b) Chi-Square Tests</b>					
		Value	df	Asymp. Sig. (2-sided)	
Pearson Chi-Square		10.442 <sup>a</sup>	2	.005	
Likelihood Ratio		10.568	2	.005	
Linear-by-Linear Association		9.837	1	.002	
N of Valid Cases		352			
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 39.77.					
<b>(c) Symmetric Measures</b>					
		Value	Approx. Sig.		
Nominal by Nominal	Phi	.172	.005		
	Cramer's V	.172	.005		
N of Valid Cases		352			

**Mothers' education:** Most mothers of the students in the mixed and Arab colleges finished secondary school.

A chi-square test of independence was performed to examine the relation between mothers' education and college type. The relation between these variables was significant, ( $\chi^2_{(2)} = 18.255, p < 0.0001$ ). The correlation is weak ( $r_c = 0.228, p = 0.000$ ).

**Table 3.8. Mother education statistics (a) cross tabulation; (b) chi-square tests; (c) symmetric measures**

<b>(a) Mother Education * College Type Cross tabulation</b>					
			College Type		Total
			Arab Colleges	Mixed Colleges	
Mother Education	Primary school	Count	42	21	63
		% within Mother Education	66.7%	33.3%	100.0%
		% within College Type	23.7%	12.0%	17.9%
	Secondary school	Count	94	79	173
		% within Mother Education	54.3%	45.7%	100.0%
		% within College Type	53.1%	45.1%	49.1%
	Academic	Count	41	75	116
		% within Mother Education	35.3%	64.7%	100.0%

		% within College Type	23.2%	42.9%	33.0%
Total	Count		177	175	352
	% within Mother Education		50.3%	49.7%	100.0%
	% within College Type		100.0%	100.0%	100.0%
<b>(b) Chi-Square Tests</b>					
		Value	df	Asymp. Sig. (2-sided)	
	Pearson Chi-Square	18.255 <sup>a</sup>	2	.000	
	Likelihood Ratio	18.540	2	.000	
	Linear-by-Linear Association	17.832	1	.000	
	N of Valid Cases	352			
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 31.32.					
<b>(c) Symmetric Measures</b>					
		Value	Approx. Sig.		
Nominal by Nominal	Phi	.228	.000		
	Cramer's V	.228	.000		
	N of Valid Cases	352			

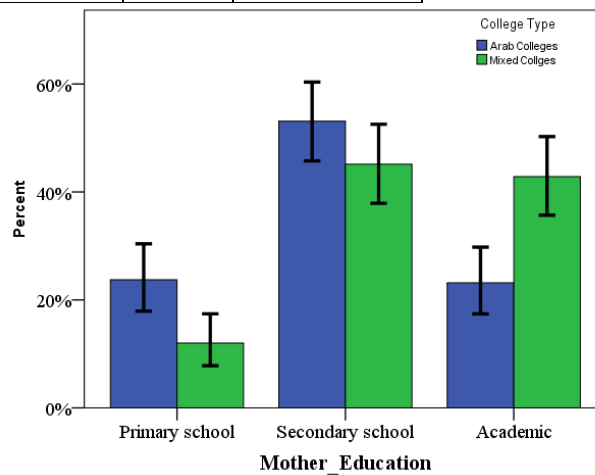


Fig. 3.10. Mother education distribution in each college type.

**Religion:** In the study sample (N= 352) the majority of students in both college categories are Muslims, but their percentage is higher in Arab colleges (84.1%) compared to mixed colleges (59.1%). The percentage of Cristian students on the other hand was almost triple in the mixed colleges (28.4%) compared to the Arab colleges (10.2%). Druze students constituted the lowest percentage in both colleges, 5.7% and 12.5%, in Arab and mixed colleges respectively.

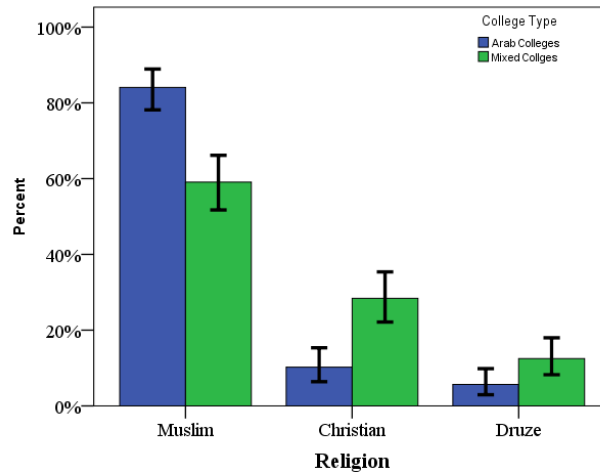


Fig. 3.11. Religion distribution in each college type.

A chi-square test of independence was performed to examine the relation between religion and college type. The relation between these variables was significant, ( $\chi^2_{(2)} = 27.241$ ,  $p < 0.0001$ ). The correlation is weak ( $r_c = 0.278$ ,  $p = 0.000$ ).

**Table 3.9. Religion statistics (a) cross tabulation; (b) chi-square tests; (c) symmetric measures.**

<b>(a) Religion * College Type Cross tabulation</b>					
		College Type		Total	
		Arab Colleges	Mixed Colleges		
Religion	Muslim	Count	148	104	252
		% within Religion	58.7%	41.3%	100.0%
		% within College Type	84.1%	59.1%	71.6%
	Christian	Count	18	50	68
		% within Religion	26.5%	73.5%	100.0%
		% within College Type	10.2%	28.4%	19.3%
	Druze	Count	10	22	32
		% within Religion	31.3%	68.8%	100.0%
		% within College Type	5.7%	12.5%	9.1%
Total		Count	176	176	352
		% within Religion	50.0%	50.0%	100.0%
		% within College Type	100.0%	100.0%	100.0%
<b>(b) Chi-Square Tests</b>					
		Value	df	Asymp. Sig. (2-sided)	
Pearson Chi-Square		27.241 <sup>a</sup>	2	.000	
Likelihood Ratio		28.005	2	.000	
Linear-by-Linear Association		21.345	1	.000	
N of Valid Cases		352			
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.00.					
<b>(c) Symmetric Measures</b>					
		Value	Approx. Sig.		
Nominal by Nominal	Phi	.278	.000		
	Cramer's V	.278	.000		
N of Valid Cases		352			

**Religiosity:** Most students in both college categories reported that they are traditional, while only a minority of students from both categories reported either religious or secular.

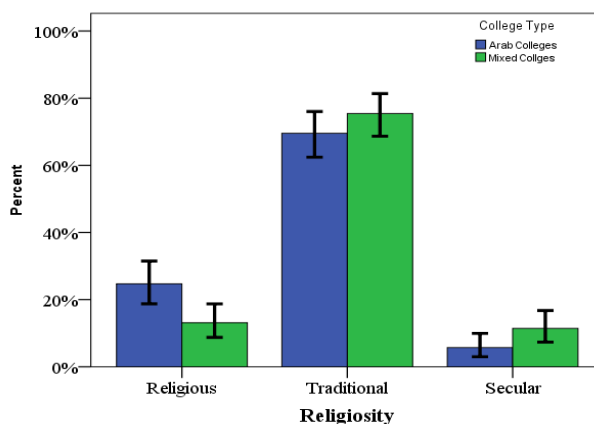


Fig. 3.12. Religiosity distribution in each college type.

A chi-square test of independence was performed to examine the relation between religiosity and college type. The relation between these variables was significant, ( $\chi^2_{(2)} = 9.869$ ,  $p = 0.007$ ). The correlation is weak ( $r_c = 0.168$ ,  $p = 0.007$ ).

**Table 3.10. Religiosity statistics (a) cross tabulation; (b) chi-square tests; (c) symmetric measures**

<b>(a) Religiosity * College Type Cross tabulation</b>					
		College Type		Total	
		Arab Colleges	Mixed Colleges		
Religiosity	Religious	Count	43	23	66
		% within Religiosity	65.2%	34.8%	100.0%
		% within College Type	24.7%	13.1%	18.9%
	Traditional	Count	121	132	253
		% within Religiosity	47.8%	52.2%	100.0%
		% within College Type	69.5%	75.4%	72.5%
	Secular	Count	10	20	30
		% within Religiosity	33.3%	66.7%	100.0%
		% within College Type	5.7%	11.4%	8.6%
Total		Count	174	175	349
		% within Religiosity	49.9%	50.1%	100.0%
		% within College Type	100.0%	100.0%	100.0%
<b>(b) Chi-Square Tests</b>					
		Value	df	Asymp. Sig. (2-sided)	
Pearson Chi-Square		9.869 <sup>a</sup>	2	.007	
Likelihood Ratio		10.030	2	.007	
Linear-by-Linear Association		9.791	1	.002	
N of Valid Cases		349			
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 14.96.					
<b>(c) Symmetric Measures</b>					
		Value	Approx. Sig.		
Nominal by Nominal	Phi	.168	.007		
	Cramer's V	.168	.007		



<b>(a) Religiosity * College Type Cross tabulation</b>					
		College Type			Total
		Arab Colleges	Mixed Colleges		
Religiosity	Religious	Count	43	23	66
		% within Religiosity	65.2%	34.8%	100.0%
		% within College Type	24.7%	13.1%	18.9%
	Traditional	Count	121	132	253
		% within Religiosity	47.8%	52.2%	100.0%
		% within College Type	69.5%	75.4%	72.5%
	Secular	Count	10	20	30
		% within Religiosity	33.3%	66.7%	100.0%
		% within College Type	5.7%	11.4%	8.6%
Total		Count	174	175	349
		% within Religiosity	49.9%	50.1%	100.0%
N of Valid Cases			349		

**Current study year:** Fig. 3.13. presents the distribution of the students in each college type by the current study year.

A chi-square test of independence was performed to examine the relation between current study year and college type. The relation between these variables was significant, ( $\chi^2_{(3)} = 16.413$ ,  $p=0.001$ ). The correlation is weak ( $r_c = 0.217$ ,  $p= 0.001$ ).

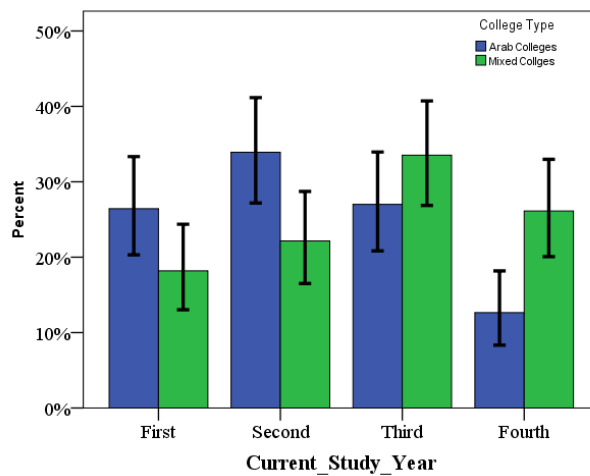


Fig. 3.13. Current study year distribution in each college type.

**Table 3.11. Current study year statistics (a) cross tabulation; (b) chi-square tests; (c) symmetric measures**

<b>(a) Current Study Year * College Type Cross tabulation</b>					
		College Type			Total
		Arab Colleges	Mixed Colleges		
Current Study Year	First	Count	46	32	78
		% within Current Study Year	59.0%	41.0%	100.0%
		% within College Type	26.4%	18.2%	22.3%

	Second	Count	59	39	98
		% within Current Study Year	60.2%	39.8%	100.0%
		% within College Type	33.9%	22.2%	28.0%
	Third	Count	47	59	106
		% within Current Study Year	44.3%	55.7%	100.0%
		% within College Type	27.0%	33.5%	30.3%
	Fourth	Count	22	46	68
		% within Current Study Year	32.4%	67.6%	100.0%
		% within College Type	12.6%	26.1%	19.4%
Total	Count	174	176	350	
	% within Current Study Year	49.7%	50.3%	100.0%	
	% within College Type	100.0%	100.0%	100.0%	

**(b) Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.413 <sup>a</sup>	3	.001
Likelihood Ratio	16.643	3	.001
Linear-by-Linear Association	14.039	1	.000
N of Valid Cases	350		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 33.81.

**(c) Symmetric Measures**

		Value	Approx. Sig.
Nominal by Nominal	Phi	.217	.001
	Cramer's V	.217	.001
N of Valid Cases		350	

**Work:** Previously there were 4 categories in this variable (as shown in Appendix 2), however because of limited observations in some of these categories, similar categories were merged. Most students in Arab colleges (72%) don't work compared to 44% in mixed colleges that don't work. 28% of the students in Arab colleges work while 56% Arab future teachers in mixed colleges work.

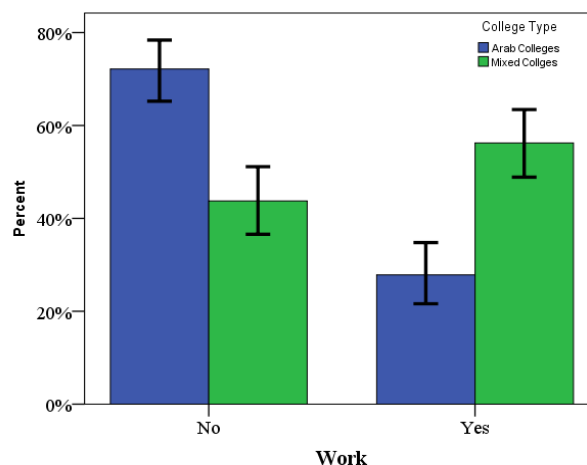


Fig. 3.14. Work distribution in each college type.

A chi-square test of independence was performed to examine the relation between work and college type. The relation between these variables was significant ( $\chi^2_{(1)} = 29.147, p < 0.0001$ ). The correlation is weak ( $r_c = 0.288, p = 0.000$ ).

**Table 3.12. Work statistics (a) cross tabulation; (b) chi-square tests; (c) symmetric measures**

<b>(a) Work * College Type Cross tabulation</b>					
		College Type			Total
		Arab Colleges	Mixed Colleges		
Work	No	Count	127	77	204
		% within Work	62.3%	37.7%	100.0%
		% within College Type	72.2%	43.8%	58.0%
	Yes	Count	49	99	148
		% within Work	33.1%	66.9%	100.0%
		% within College Type	27.8%	56.3%	42.0%
Total		Count	176	176	352
		% within Work	50.0%	50.0%	100.0%
		% within College Type	100.0%	100.0%	100.0%

<b>(b) Chi-Square Tests</b>					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	29.147 <sup>a</sup>	1	.000		
Continuity Correction <sup>b</sup>	27.993	1	.000		
Likelihood Ratio	29.609	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	29.064	1	.000		
N of Valid Cases	352				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 74.00.  
b. Computed only for a 2x2 table

<b>(c) Symmetric Measures</b>			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.288	.000
	Cramer's V	.288	.000
N of Valid Cases		352	

To summaries, there were no significant differences between the two college types in gender, marital status and income. While for the rest of the socio-demographic variables: age, residence, fathers' education, mothers' education, religion, religiosity, current study year and work significant differences were found with weak correlations ranging between 0.1 and 0.3. Furthermore, students with higher levels of parents education, and with higher religiosity have lower levels of autonomous motivation. Parents with more education also have higher expectation for their children's education which facilitate the greater educational attainment for their children, see Alexander, Entwisle & Bedinger, 1994 In [27]. Well educated parents are involved more in their children's education and therefore more controlling than less educated parents. Richard and David, 1967 In [27] argued that parental level of education influences

parental involvement, support and expectation for their children. In turn these parental involvement, support and expectation influence achievement motivation of adolescents. Thus education, occupation and income of parents are important factor which influence the achievement motivation of children. This finding may be contributed to the students' need to fill their parents expectations. Students with higher levels of religiosity have lower controlled motivation, it would be interesting to further investigate this finding. These results were taken into consideration for the next steps of the analysis.

### **Preliminary Data Analysis**

After checking for missing data and outliers, the data's normality, linearity and homoscedasticity properties were tested and it was found to fit the requirements for parametric data analysis. Therefore, the following step of the analysis included the hypothesis tests. Table 3.13. below presents descriptive statistics for the predictor variables, and for the outcome variables which all had higher means in Arab colleges.

**Table 3.13. Descriptive statistics of the variables of interest and the two dependent variables in Arab and mixed colleges**

College Type		N	Minimum	Maximum	M	SD
Arab Colleges	Program Evaluation	177	1.73	5.00	3.6754	.60688
	Attitudes Teaching	177	2.80	5.00	4.2311	.48920
	Hebrew Fluency	177	2.00	5.00	3.9732	.75353
	CCSE	177	1.00	5.00	3.9054	.82220
	Autonomy Support	177	1.00	5.00	3.1704	.75146
	Competence	177	.00	5.00	4.3432	.63776
	Relatedness	177	.00	5.00	3.8425	.75390
	LSR Autonomous M.	177	2.00	5.00	4.1006	.60080
	LSR Controlled M.	177	1.57	4.71	3.2478	.67407
	Valid N (list wise)	177				
Mixed Colleges	Program Evaluation	176	1.00	5.00	3.5124	.73908
	Attitudes Teaching	175	2.30	5.00	4.1634	.57638
	Hebrew Fluency	176	1.00	5.00	3.9474	1.08549
	CCSE	176	.25	5.00	3.7898	.98299
	Autonomy Support	176	1.33	5.00	3.2964	.78218
	Competence	176	.00	5.00	4.2045	.64536
	Relatedness	176	.00	5.00	3.7734	.70905
	LSR Autonomous M.	176	.00	5.00	3.8670	.68172
	LSR Controlled M.	176	.00	4.71	3.0771	.69498
	Valid N (list wise)	175				

### **Relationship between LSR and socio-demographic (ordinal variables)**

Spearman correlations were conducted among the following categorical variables: Age, income, fathers' education, mothers' education, religiosity and both types of LSR: Autonomous regulation and controlled regulation. The results of the correlations in Table 3.14. show that age and religiosity are positively and significantly correlated ( $r_s = 0.144$ ,  $n = 348$ ,  $p = 0.007$ ),

meaning that older students are more religious. A significant positive correlation was also found between family income and fathers' education, ( $r_s = 0.266$ ,  $n = 343$ ,  $p < 0.0001$ ) as well as between family income and mothers' education ( $r_s = 0.284$ ,  $n = 343$ ,  $p < 0.0001$ ), indicating that parents with higher levels of education are expected to earn higher income. Significant positive correlation was also found between mothers' education level and fathers' education level ( $r_s = 0.489$ ,  $n = 352$ ,  $p < 0.0001$ ). Student autonomous regulation was found to be significantly and negatively correlated to the parents' education level, meaning that it is more probably for students coming from a low education background to have higher levels of autonomous regulation (Correlation with the fathers' education:  $r_s = -0.171$ ,  $n = 352$ ,  $p = 0.001$ ; Correlation with the mothers' education:  $r_s = -0.114$ ,  $n = 352$ ,  $p = 0.032$ ). Similarly, students with parents' of lower skills and education demonstrate higher levels of controlled regulation (Correlation with the fathers' education:  $r_s = -0.105$ ,  $n = 349$ ,  $p = 0.049$ ; Correlation with the mothers' education:  $r_s = 0.337$ ,  $n = 353$ ,  $p < 0.0001$ ). Religiosity was also found to be significantly and negatively correlated to students' autonomous regulation ( $r_s = -0.138$ ,  $n = 349$ ,  $p = 0.010$ ). Relationships among the rest mentioned variables were not found to be of statistical significance.

**Table 3.14. Correlations between dependent variables and socio-demographic variables**

		Autonomous	Controlled	Age	Income	Father Education	Mother Education	Religiosity
Spearman's rho	Autonomous	1.000	.337**	.019	-.022	-.171**	-.114*	-.138*
	Controlled	.337**	1.000	-.058	-.002	-.040	.001	-.105*
	Age	.019	-.058	1.000	-.043	-.071	-.104	.144**
	Income	-.022	-.002	-.043	1.000	.266**	.284**	.067
	Father Education	-.171**	-.040	-.071	.266**	1.000	.489**	-.021
	Mother Education	-.114*	.001	-.104	.284**	.489**	1.000	.023
	Religiosity	-.138*	-.105*	.144**	.067	-.021	.023	1.000
**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).								

**Table 3.15. Correlations among covariates**

Pearson Correlation						
	CCSE	Autonomy Support	Competence	Relatedness	Program Evaluation	Attitudes Teaching
Hebrew Fluency	.052	.260**	.254**	.198**	.056	.247**
CCSE	1	.235**	.155**	.130*	.140**	.206**
Autonomy Support	.235**	1	.294**	.252**	.161**	.292**
Competence	.155**	.294**	1	.364**	.219**	.310**
Relatedness	.130*	.252**	.364**	1	.042	.258**
Program Evaluation	.140**	.161**	.219**	.042	1	.433**
Attitudes Teaching	.206**	.292**	.310**	.258**	.433**	1

Pearson Correlation						
	CCSE	Autonomy Support	Competence	Relatedness	Program Evaluation	Attitudes Teaching
Hebrew Fluency	.052	.260**	.254**	.198**	.056	.247**
CCSE	1	.235**	.155**	.130*	.140**	.206**
Autonomy Support	.235**	1	.294**	.252**	.161**	.292**
Competence	.155**	.294**	1	.364**	.219**	.310**
Relatedness	.130*	.252**	.364**	1	.042	.258**
Program Evaluation	.140**	.161**	.219**	.042	1	.433**
Attitudes Teaching	.206**	.292**	.310**	.258**	.433**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
\* . Correlation is significant at the 0.05 level (2-tailed).

**Table 3.16. Correlations between covariates (variables of interest) and the two dependent variables**

Pearson Correlation

	LSR Autonomous Reg	LSR Controlled Reg
LSR Autonomous M.	1	.406**
LSR Controlled M.	.406**	1
Hebrew Fluency	.226**	.124*
CCSE	.399**	.101
Autonomy Support	.400**	.195**
Competence	.428**	.123*
Relatedness	.376**	.083
Program Evaluation	.262**	.298**
Attitudes Teaching	.351**	.181**

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

### **Group mean differences in both types of motivation by college type:**

SDT focuses not only on the quantity of motivation but also on its quality [63]. The above aspect of this theoretical discourse translates into the first research question: Do the autonomous and controlled types of motivation differ between students from mixed colleges and those from Arab colleges?

Hypothesis: The students in the Arab colleges will have higher levels of motivation and more autonomous motivation than controlled.

An independent t-test and analysis of variance (ANOVA) were performed to examine whether there were significant group mean differences between the two types of motivation by college category. The results of the t-test revealed that there exists a significant correlation between college type and autonomous motivation ( $t_{(351)} = 3.415$ ,  $p = 0.001$ ). Autonomous motivation was found to be higher in Arab colleges ( $M = 4.1006$ ,  $SD = .60080$ ) than in mixed colleges ( $M = 3.8670$ ,  $SD = .68172$ ).

A significant correlation was also found between college type and controlled motivation ( $t_{(351)} = 2.342$ ,  $p = 0.020$ ). Controlled motivation ( $M = 3.2478$ ,  $SD = .67407$ ) was found to be higher

in Arab colleges than in mixed colleges ( $M= 3.0771$ ,  $SD= .69498$ ). These results are consistent with the research hypothesis according to which students in the Arab colleges will have higher levels of motivation and more autonomous motivation than controlled.

**Table 3.17. Group statistics of autonomous and controlled motivation in both college types**

	College Type	N	M	SD	Std. Error Mean
LSR Autonomous M.	Arab Colleges	177	4.100	.601	.0451
	Mixed Colleges	176	3.867	.681	.0513
LSR Controlled M.	Arab Colleges	177	3.247	.674	.0506
	Mixed Colleges	176	3.077	.694	.0524

**Table 3.18. Independent samples test- autonomous and controlled motivation**

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Autonomous	Equal variances assumed	1.351	.246	3.415	351	.001	.233	.068	.099	.368
	Equal variances not assumed			3.414	345.05	.001	.233	.068	.098	.368
Controlled	Equal variances assumed	.094	.760	2.342	351	.020	.170	.072	.027	.313
	Equal variances not assumed			2.342	350.54	.020	.170	.072	.027	.314

**Summary of Hierarchical Regression Analysis for Variables Predicting Autonomous Motivation (N= 353):**

Second research question: Do the variables of interest significantly explain the two types of motivation?

Hypotheses: Different variables of interest will significantly explain the two types of motivation. According to SDT [63; 65] the three PN will significantly explain the autonomous motivation.

The study applied hierarchical regression analysis to examination results in search for the best predictors among the variables of interest in predicting students' motivation (LSR: Learning Self - Regulation). The variables of interest are: Hebrew fluency, CCSE, autonomy support, competence, relatedness, program evaluation and attitudes towards teaching. Among those, religion and residence served as controls for the autonomous motivation regression while religion was included in the model of controlled motivation.

The categorical religion variable (with the values 1 for Muslim; 2 for Christian and 3 for Druze) was collapsed into a dummy variable for each category in order to be included in the hierarchical regression. The same technique was implemented in the case of the region of residence variable (with the values 1 Arabic city; 2 mixed city; 3 Arabic village).

A hierarchical regression was conducted to determine the best predictors of autonomous motivation among the independent variables. Table 3.19. presented below is a 3-step hierarchical regression. In model 1 only socio-economic variables were included. In model 2 predictor variables related for example to students' PN and attitudes were added in addition to the socio-economic related variables. Finally, in model 3 the interaction was added. Table 3.19. presents the models' goodness of fit. As can be seen model 3 has the highest Adjusted R Square.

**Table 3.19. Model summary and ANOVA.**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.285 <sup>a</sup>	.081	.065	.63047	.081	5.089	6	346	.000	
2	.664 <sup>b</sup>	.440	.420	.49640	.359	36.357	6	340	.000	
3	.691 <sup>c</sup>	.478	.450	.48380	.037	3.991	6	334	.001	1.866

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.138	6	2.023	5.089	.000
	Residual	137.533	346	.397		
	Total	149.671	352			
2	Regression	65.891	12	5.491	22.284	.000
	Residual	83.780	340	.246		
	Total	149.671	352			
3	Regression	71.496	18	3.972	16.970	.000
	Residual	78.176	334	.234		
	Total	149.671	352			

**Table 3.20. Model estimation results of autonomous motivation**

Model		Unstandardized Coef.		Standardized Coef.	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.800	0.630		6.027	0.000
	College Type	-0.319	0.071	-0.245	-4.485	0.000
	Muslim	0.179	0.634	0.124	0.282	0.778
	Christian	0.456	0.638	0.276	0.714	0.476
	Druze	0.453	0.645	0.200	0.701	0.483
	Mixed City	0.211	0.119	0.102	1.774	0.077
	Arabic Village	0.119	0.075	0.091	1.595	0.112
2	(Constant)	0.836	0.557		1.500	0.134
	College Type	-0.229	0.057	-0.176	-3.985	0.000
	Muslim	-0.170	0.507	-0.118	-0.336	0.737
	Christian	0.084	0.508	0.051	0.165	0.869
	Druze	-0.015	0.515	-0.007	-0.030	0.976



	Mixed City	0.101	0.096	0.049	1.049	0.295
	Arabic Village	0.100	0.060	0.077	1.669	0.096
	Hebrew Fluency	0.006	0.032	0.008	0.181	0.857
	CCSE	0.186	0.031	0.258	6.078	0.000
	Autonomy Support	0.168	0.039	0.198	4.275	0.000
	Competence	0.223	0.047	0.221	4.713	0.000
	Relatedness	0.164	0.040	0.184	4.109	0.000
	Program Evaluation	0.124	0.041	0.129	3.031	0.003
	(Constant)	1.234	0.607		2.031	0.043
	College Type	-0.820	0.484	-0.629	-1.694	0.091
	Muslim	-0.370	0.500	-0.257	-0.740	0.460
	Christian	-0.134	0.504	-0.081	-0.267	0.790
	Druze	-0.242	0.509	-0.107	-0.475	0.635
	Mixed City	0.088	0.094	0.042	0.930	0.353
	Arabic Village	0.090	0.059	0.069	1.529	0.127
	Hebrew Fluency	0.037	0.051	0.053	0.721	0.471
	CCSE	0.186	0.047	0.258	3.939	0.000
3	Autonomy Support	0.213	0.055	0.251	3.858	0.000
	Competence	0.088	0.066	0.087	1.338	0.182
	Relatedness	0.077	0.054	0.086	1.434	0.153
	Program Evaluation	0.250	0.066	0.261	3.800	0.000
	Col. Type _Hebrew Fluency	-0.041	0.064	-0.132	-0.633	0.527
	Col. Type * CCSE	0.017	0.061	0.051	0.271	0.787
	Col. Type * Autonomy Support	-0.111	0.077	-0.296	-1.435	0.152
	Col. Type * Competence	0.255	0.093	0.841	2.743	0.006
	Col. Type * Relatedness	0.188	0.078	0.564	2.411	0.016
	Col. Type * Program Evaluation	-0.208	0.083	-0.584	-2.505	0.013

a. Dependent Variable: LSR Autonomous Regulation (Autonomous Motivation)

In step 1 (model 1) the socio-demographic variables were included but none of them was significant. Only religion and region of residence were chosen as controls in order to account for the differences in motivation attributed to religion and area of residence. Model 1 is significant  $F(6,346) = 5.089, p < 0.0001$ . Neither religion nor residence were significant predictors in the first step but they contributed to the improvement of the model's explanatory power by increasing  $R^2$  by 0.081, and the adjusted  $R^2 = 0.065$ .

Then, the following independent variables: Hebrew fluency, CCSE, autonomy support, competence, relatedness and program evaluation were added at the second step of the hierarchical analysis (model 2). Model 2 is also significant according to the following statistics:  $F(12,340) = 22.284, p < 0.0001, R^2 \text{ change} = 0.359$ , and adjusted  $R^2 = 0.420$ . Adding these variables in the second step resulted in a more robust model. From the set of the independent variables, CCSE, autonomy support, competence, relatedness and program evaluation were found to be statistically significant. CCSE was found to be the strongest predictor ( $\beta = 0.258, p < 0.0001$ ), followed by competence ( $\beta = 0.221, p < 0.0001$ ), autonomy support ( $\beta = 0.198, p < 0.0001$ ), relatedness ( $\beta = 0.184, p < 0.0001$ ) and finally program evaluation ( $\beta = 0.129, p = 0.003$ ). This implies that higher values of the five motivational predictors induce higher levels of autonomous

motivation. However, Hebrew fluency was not found to be a significant factor in predicting autonomous motivation. Attitudes towards teaching and program evaluation were significantly correlated ( $r_p = 0.433$ ,  $p < 0.001$ ), so they couldn't be both included in the model. Therefore, the measure of the attitudes towards teaching was not included in the model. Consequently, the validation of the hypothesis did not receive full empirical support.

Third research question: Does the college type affect the relationship between the variables of interest and the two types of motivation (moderation)?

Third question hypotheses: College type will be a significant moderating factor.

In step 3 (model 3) the interactions between college type and the independent variables were added. Model 3 is significant  $F(18,334) = 16.970$ ,  $p < 0.0001$ ,  $R^2$  change = .037, and adjusted  $R^2 = .450$ . So it can be concluded that the addition of the interactions increased the percentage of the variance explained. Thus the third model as a whole explained 45% of the variance in autonomous motivation. The following interactions were found to be significant: college type and competence ( $\beta = .841$ ,  $p = 0.006$ ) followed by college type and relatedness ( $\beta = .564$ ,  $p = 0.016$ ), and finally college type and program evaluation ( $\beta = -.584$ ,  $p = 0.013$ ). This indicates that college type affects the relationship between the independent variables and autonomous motivation. While the interactions of college type with competence and relatedness are positive, indicating that those two elements induce motivation in both types of colleges, the interaction with program evaluation is negatively correlated with autonomous motivation.

Higher values for the independent variables, competence and relatedness, are associated with higher value for autonomous motivation for the mixed colleges. In contrast, the interaction of college type with program evaluation is negatively correlated with autonomous motivation. In other words, higher satisfaction rating of the program evaluation in Arab colleges lead to an increase in the students' autonomous motivation, while in the mixed colleges, this increase is to a lesser extent.

### **Summary of Hierarchical Regression Analysis for Variables Predicting Controlled Motivation (N= 353):**

In Table 3.21., the results of 3-step hierarchical regression, including the interaction terms between the continuous scores and college type, are presented. In step 1 (model 1), religion served as a control variable in order to account for its influence. Then, the following independent variables: Hebrew fluency, CCSE, autonomy support, competence, relatedness and program evaluation were added in step 2 (model 2). In step 3 (model 3) the interactions between college type and the independent variables were included.

**Table 3.21. Model summary and ANOVA**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.183 <sup>a</sup>	.034	.022	.68115	.034	3.019	4	348	.018	
2	.379 <sup>b</sup>	.143	.118	.64687	.110	7.310	6	342	.000	
3	.424 <sup>c</sup>	.180	.141	.63863	.036	2.481	6	336	.023	1.961

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.604	4	1.401	3.019	.018 <sup>a</sup>
	Residual	161.462	348	.464		
	Total	167.065	352			
2	Regression	23.957	10	2.396	5.725	.000 <sup>b</sup>
	Residual	143.108	342	.418		
	Total	167.065	352			
3	Regression	30.030	16	1.877	4.602	.000 <sup>c</sup>
	Residual	137.036	336	.408		
	Total	167.065	352			

Model 1 is significant,  $F(4,348)=3.019$ ,  $p=.018$ . The variables in model 1 contributed to the variance explanation by  $R^2$  change= .034, and resulted in adjusted  $R^2 =.022$ . Contrary to autonomous motivation religion significantly affect the controlled motivation. According to the results, religion in general increases the controlled motivation. The coefficient for Muslims ( $\beta=1.009$ ) is higher than the coefficient for Christian ( $\beta=0.937$ ) and for Druze ( $\beta=0.618$ ).

The independent variables: Hebrew fluency; CCSE; autonomy support; competence; relatedness and program evaluation were added at step 2 (model 2). Model 2 is significant  $F(10,342)=5.725$ ,  $p<0.0001$ ,  $R^2$  change=.110, and adjusted  $R^2 =.118$ . Adding these variables in step 2 resulted in a stronger model. From the set of the independent variables, autonomy support and program evaluation were significant. Program evaluation was found to be the strongest predictor of controlled motivation ( $\beta= .260$ ,  $p<0.0001$ ), followed by autonomy support ( $\beta= .132$ ,  $p<0.021$ ). This implies that higher values of these two predictors are associated with higher value of controlled motivation. However, Hebrew fluency, CCSE, competence and relatedness were not proved to be significant factors for predicting controlled motivation.

In step 3 (model 3) the interactions between college type and the previous independent variables were added. Model 3 with the interactions is significant  $F(16,336)= 4.602$ ,  $p<0.0001$ ,  $R^2$  change=.036, adjusted  $R^2 =.141$ . Thus, the third model as a whole explained 14% of the variance of controlled motivation. The only factor significantly interacted with college type is relatedness ( $\beta=0.765$ ,  $p=0.009$ ). The interaction results indicate that as the students' feeling of relatedness in mixed colleges increases, their reported controlled motivation increases, while in

the Arab college it decreases. There is a need for further investigation of the variables that could predict the Arab future teachers' controlled motivation.

**Table 3.22. Model estimation results of controlled motivation**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.714	0.681		2.517	0.012
	College Type	-0.194	0.076	-0.141	-2.562	0.011
	Muslim	1.535	0.683	1.009	2.247	0.025
	Christian	1.634	0.688	0.937	2.374	0.018
	Druze	1.481	0.694	0.618	2.136	0.033
2	(Constant)	0.470	0.726		0.647	0.518
	College Type	-0.152	0.073	-0.110	-2.063	0.040
	Muslim	1.126	0.659	0.740	1.709	0.088
	Christian	1.219	0.662	0.699	1.843	0.066
	Druze	0.964	0.669	0.403	1.442	0.150
	Hebrew Fluency	0.057	0.041	0.077	1.388	0.166
	CCSE	0.015	0.040	0.020	0.386	0.700
	Autonomy Support	0.118	0.051	0.132	2.327	0.021
	Competence	-0.007	0.061	-0.006	-0.109	0.913
	Relatedness	0.015	0.052	0.016	0.297	0.767
	Program Evaluation	0.263	0.053	0.260	4.945	0.000
3	(Constant)	1.236	0.801		1.543	0.124
	College Type	-1.645	0.637	-1.196	-2.581	0.010
	Muslim	1.075	0.660	0.706	1.630	0.104
	Christian	1.143	0.665	0.655	1.719	0.087
	Druze	0.875	0.670	0.365	1.307	0.192
	Hebrew Fluency	0.042	0.068	0.056	0.615	0.539
	CCSE	0.034	0.062	0.045	0.554	0.580
	Autonomy Support	0.084	0.072	0.094	1.166	0.244
	Competence	-0.092	0.087	-0.086	-1.055	0.292
	Relatedness	-0.105	0.071	-0.112	-1.492	0.137
	Program Evaluation	0.322	0.087	0.318	3.711	0.000
	Col. Type * Hebrew Fluency	0.008	0.085	0.024	0.091	0.928
	Col. Type * CCSE	-0.024	0.081	-0.070	-0.294	0.769
	Col. Type * Autonomy Support	0.063	0.102	0.159	0.619	0.537
	Col. Type * Competence	0.152	0.123	0.475	1.239	0.216
	Col. Type * Relatedness	0.270	0.103	0.765	2.621	0.009
Col. Type * Program Evaluation	-0.088	0.109	-0.234	-0.802	0.423	

a. Dependent Variable: LSR Controlled Regulation (Controlled Motivation)

### Summary of the Baseline (pre-results)

According to the pre-results, a significant difference was found between the two college types, but the means are very close. Means of predictor variables, and outcome variables were all higher in Arab colleges. Responses on controlled motivation (controlled regulation) provided either external or introjected regulation. Responses on autonomous motivation (autonomous regulation) provided either identified regulation or intrinsic motivation. Future teachers in Arab colleges had higher levels of motivation (quantity) and higher in both motivation types.

Furthermore, program evaluation and autonomy support are significant in inducing both types of motivation: future teachers that evaluate more positively the Special Education program attend to demonstrate higher motivation. Consequently, future teachers' perceptions and evaluations of the program they attend are of great importance when it comes to the formation of their learning motivation. Those who rated their program high in the ranking scale had higher levels of both autonomous and controlled motivation. Besides, future teachers that receive higher levels of autonomy support demonstrate higher motivation.

Competence and relatedness are significant only in predicting autonomous motivation. Future teachers with higher competence and feeling of relatedness have higher autonomous motivation. This finding is consistent with SDT theory which suggests that autonomous motives, as well as the energy and engagement they induce, are supported by contexts enhancing experiences of *autonomy, competence, and relatedness* [155].

CCSE is a significant predictor of autonomous motivation. Future teachers who had freely chosen the college type and Special Education Department were more autonomously motivated. This finding comes in agreement with results of previous studies [120], and it also further supports the concept of the interdependence between autonomy, volition and well-being. This finding is consistent with previous studies that indicated that choosing a profession that fulfills the individual's needs and personal tendencies leads to greater personal welfare, as expressed in satisfaction at work, motivation, persistence and achievements, and vice versa [152; 181].

Hebrew fluency was not found to be significant in spite of the difficulty in using second language described in the relevant literature [175; 182].

College type as a moderating factor partly influenced the relationships connecting the variables of interest of the future teachers with their autonomous motivation. According to the regression results, competence, program evaluation and relatedness had higher impacts in mixed colleges. Competence and relatedness had higher impact in mixed colleges, and program evaluation had lower impact in mixed colleges. College type as a moderating factor affected relatedness in controlled motivation regression model, relatedness had higher impact in mixed colleges.

In the pre-results the means of both the autonomous and controlled motivations, in both college types, were higher than the expectations and observations in the field. Mean answers in both college types were of higher levels than the expected and had been previously observed in the field, therefore social desirability bias, existing among Arab participants in Arab society [206], could be the explanation of the higher levels. Moreover, both close means in the two types

of motivation was evidenced in previous studies [148]. In future research it is better to include a measure of social desirability questionnaire such as the questionnaire designed by Delroy L. Paulhus [139] Balanced Inventory of Desirable Responding (BIDR). It is possible that future teachers who were asked to fill out questionnaires so far tended to give quick and not always adequate answers, while some of them even tended to respond according to what they think the researcher would expect. Therefore, we consider that social desirability bias could pose a further limitation to the present study, since the mean answers in both college types were higher than expected and compared to what had been previously observed in the field. Moreover, the similar mean values of the two types of motivation (autonomous and controlled) was evidenced in previous studies, and can be partly explained by a lack of self-awareness.

The pre-results show that the three PN were found to explain the autonomous type of motivation, a result consistent with the findings of the majority of previous studies [94; 95; 120]. However, autonomy support was also found to induce controlled motivation, a finding which contradicts previous studies in the field of SDT, which emphasize that autonomy supportive climates are expected to enhance autonomous motivation, and therefore controlled motivation is expected to be decreased. This, in our opinion, can be partly explained on the basis of the Arab collectivist society, in which some individual choices are influenced by society expectations and culture. SDT embraces the idea that cultures do influence people in important ways but it is based on the consideration that all individuals have certain PN that needs to get satisfied in order to experience optimal well-being, with those needs being independent of the cultural context [66]. Recently, a debate has risen regarding the cross-cultural validity of this theory, with some scholars arguing that the PN are culture-bound and others arguing that the PN generalize across cultures. Moreover, the cultural context within which the future teachers evolve and behave may affect their answers to the questionnaires. It could also be possible that people in some cultures have higher total motivation than people in other cultures. Therefore, clearly more research is needed to further investigate these findings, and to examine possible alternative and evidenced-based explanations.

### **3.2. Analysis of focus groups from perspective of learning situations' influence on developing learning motivation of Arab future teachers**

#### **Qualitative Research Methodology**

The learning context in the quantitative part of the research was operatively identified by the college type variable (mixed colleges vs. Arab colleges), whereas the qualitative part expands and enriches the quantitative results and helps in understanding what characterizes the learning

context, and its connection to the future teachers' learning motivation. Understanding what factors in the learning context students experienced as influencing their motivation was achieved by analyzing the different elements that constitute the learning context, and what they experience as meaningful in increasing or decreasing their motivation. The qualitative part describes the psychosocial and pedagogical learning context from the perspective of the future teachers themselves, by expressing their voices. Therefore, the purpose of the qualitative part is to get rich description and understanding of the subjective factors that increase or decrease the future teachers' learning motivation.

### **Qualitative Questions:**

**Main question:** What factors in the learning context future teachers experienced as influencing their learning motivation?

### **Secondary questions:**

1. What are the factors that promoted future teachers' choices of college type and Special Education?
2. What are the factors that hindered future teachers' choices of college type and Special Education?

### **Focus Groups (FG) Interviews:**

FG interviews were found to be an appropriate method for enhancing the image obtained in the quantitative analysis of the research. FGs is the method of data collection based on group interviews. The focus is on the interaction within the group based on issues discussed in the group, where the researcher often take the role of a mediator [176, p. 89]. In other words, it is not the usual sense of a dialogue where the researcher asks questions and the participants respond (informants). The FG provides access to data that cannot be obtained easily through interviews and observations. "The main advantage of the FG is that it provides the opportunity to observe a large amount of interaction on the topic in a limited period of time" [176, p. 89].

**Recruiting Participants for FGs:** Part of the FG volunteered participants were reached with the assistance of colleagues, while the remaining participants were reached when the questionnaire was distributed in classes. The questionnaires were distributed after providing a brief explanation on the study in order to motivate future teachers to participate in the study and as well in the FG. Names and communication details of students who showed interest to participate in the FGs were registered for follow-up invitation for the FGs.

**Description of the FGs:** Nine FGs interviews were conducted in both types of colleges by the researcher between November 2013- January 2014. Six of the FGs involved future

teachers from mixed colleges and three from Arab colleges. No further information was taken from the last groups in each college type, therefore no additional groups were needed to be done. Each group interview lasted about an hour and a half. Prior to the FGs interviews each participant completed an informed consent to participate in a focus group (see Appendix 4). At the beginning of each FG an introduction of a brief review of the FG interview purpose and structure were given. FG questions were derived from the literature and from the research field and aimed to understand and reveal the voices and perceptions of the Arab future teachers (see Appendix 5). Groups were audio-recorded following the participants' agreement and an insurance that all the obtained information would remain confidential. All FGs recordings were transcribed to facilitate analysis. Data were coded and analyzed using content analysis.

**Characteristics of the Groups:** The focus groups included future teachers from all the four study years. In each group, however, participants were from the same study year, and had about ten participants in order to have a rich discussion, except one group of 4 future teachers from the 4<sup>th</sup> year in a mixed college. Therefore, the total number of participants in the FGs was 53 future teachers from the mixed colleges, and 29 from the Arab colleges. Almost all groups had only female participants except of two groups that had one male participant each. Most participants' ages ranged between 18-22, most of them were Muslims, and the rest Christians and Druze. Groups' meetings were held in rooms that have been offered by the administration in the participating colleges. The future teachers and the researcher sat in the shape of a semicircle, which enabled eye contact and equal place to all participants. Each group was given an identification number, and the number of participant is indicated as well (see Appendix 6).

**Group Dynamics:** The atmosphere in most groups was positive and calm, the future teachers spoke freely, answered all the questions asked and there were no barriers. All future teachers participated in the conversation, some of them were assertive in stating their perspectives with respect to most members of the group. While others were very vocal and interrupted other participants while talking, it was important for them to make their voices heard. All future teachers in each group knew each other, so it was easier for them to share, express empathy and feel solidarity with what has been said, and to address to the participants in the group and complete the words of others. They had expectations and asked if there will be a change following the research, and whether the college will relate to what they say and desire. Some future teachers asked to pass on their remarks and difficulties on some lecturers and college staff to the head of the department.

An additional important aspect not obvious in the content analysis is the strength and intensity of emotions expressed in the groups. The group paradigm selected was found to have



an advantage over personal paradigm, especially in studying a common theme to students, and it created the possibility for dialogue and clarification. It seems as the group interview enabled respondents to feel openness, and decreased the time needed to create a warm and good contacts compared to a personal interview. Moreover, the interview helped to discuss collective subjects related to the group, and an understanding of the difficulties and stress that the respondents feel. In general, students felt relieved at the end of the focus group interviews. It seems that as a result, the students felt easing of pressure and ventilation of feelings, in this sense, the group interview created a psychotherapeutic effect [90]. The great need to support students was evident through the groups' discussions, in light of the difficulties they face. An impression of openness was apparent, both during the meetings and while reading the group materials. This described openness was found in all the focus groups with no difference between the two types of colleges.

**The Researcher as a Tool:** Belonging myself to the minority group in Israel, and my profession as a pedagogical instructor and lecturer whose interested in contributing to Arab future teachers, an extreme awareness of my place helped through the process of the FG<sub>s</sub> interviews and analysis. An extreme consciousness and a great care was required in order not to be suspected of being non-objective in my research practice, and a demand to be aware of my place in the research, and my role as the research tool. This experience required constant checking of emotions in one hand and preservation of the academic objective in the other hand.

Another challenge that was faced is the need to separate between my skills as a researcher and a bibliotherapist. Here I had to juggle between avoidance response to treatment and future teachers' expectations from me to give feedback and professional support.

**Validity and Reliability:** A question arises in the context of qualitative research refers to the degree of validity and reliability of such research [176]. In the present study examining the validity and reliability made by writing chapters' findings in detail, and combining various quotations from respondents in the FG<sub>s</sub>. Another way is according to Huberman & Miles, 1994 In [176] who ask to back up the reliability of research by maintaining chain of evidence for each step in the research, original materials collected, interviews and document analysis. In this study all documents were saved starting from original materials through to rough analysis while preserving the confidentiality of the participants.

#### **Content Analysis of Qualitative Data**

Data processing and analysis of FG<sub>s</sub>: Various approaches to qualitative data analysis exist. I choose content analysis which is an analytical technique normally used to analyze text data [176]. The goal of the content analysis is to provide knowledge and understanding about a phenomenon [74]. Qualitative content analysis may be used to methodically organize large

amounts of text information and data into categories [193]. Categorization of data is done through the process of coding and identifying themes or patterns [106].

Qualitative content analysis is an analytical process, which aims to give a meaning, an interpretation and a generalization of the phenomenon under study. The analysis includes arranging and structuring the information collected and understanding of its meaning. The analysis involves dissolution data into segments and then again attaching them in an order that gives them a meaning. Interpretation of the data and the conclusions are based on the visible content. This content arose during data analysis and latent content which were identified by the researcher, based on his professional knowledge and interpretation of the data [176].

The content analysis was carried out in several stages. First, a thorough initial reading of the raw materials, the transcription of the FGs and the texts received from open-ended questions in the questionnaire about future teachers' choices. Then, a process of dissolution was done, in which sections of texts were divided and sorted into initial sub-categories according to topics and terms. Next, connections were found between sub-categories and categories and associations between them were identified. Finally the categories were grouped into general final themes that constituted the basis on which the results were written.

### **Voices from FGs**

The analysis was made while searching for key themes that appeared in the data collected in the FGs and the two open questions in the questionnaire. As part of the analysis, the categories were formulated and sub-categorized, with attention to the use of language and semantics. The thematic analysis is shown through axis organizer themes namely: subjective factors that future teachers experience as enhancing or reducing their motivation. The analysis will also try to illustrate what's happening at each college type separately. The themes are divided into two chronological periods of time: before entering college, and during studying at college. Two major themes stemmed from the qualitative materials, future teachers' choices and future teachers' experiences, see fig. 3.15. below "Diagram of the themes of the qualitative analysis":

Firstly, future teachers' choices of college type and Special Education Department before starting college. It is important to note that all future teachers were interviewed in the focus groups during their study at college, but were asked about both their previous choices before entering college and during their study.

Autonomous, and controlled motivation or lack of motivation are expressed by the future teachers' voices in both phases. In the first phase, the future teachers reported either personal inner motivation or more extrinsic motivation in choosing college type and Special Education Department. In the second phase the future teachers' experiences in college and its effect on their

learning motivation were expressed. In the two major themes and sub-categories the issue of multiculturalism was present in the background all the time.

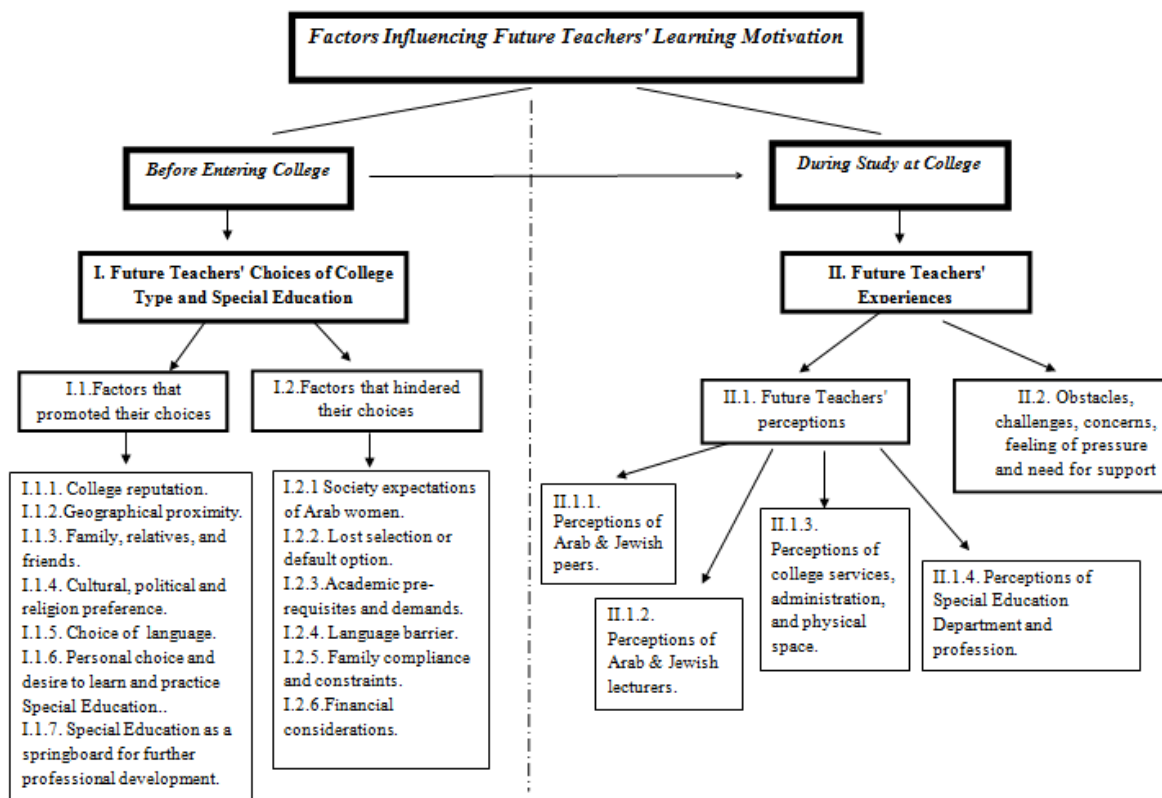


Fig. 3.15. Diagram of the themes of the qualitative analysis

### I. Future Teachers' Choices of College Type and Special Education Department

Future teachers' choices of college type and Special Education Department (CCSE) was examined in the quantitative part of the research, and it was found to be significant with autonomous motivation only. Therefore, in the FG<sub>s</sub> future teachers were asked about their previous choices, in order to expand the understanding of the factors that promoted or hindered these choices from their subjective perspective. There is no priority order of the choices of future teachers, some wanted from the beginning to study Special Education and then choose where to study it, in a mixed or Arab college. Others who were reluctant and did not know from the beginning in which domain they want to specialize choose the college and then choose the domain. Differences between college choice and Special Education choice were not so distinct from future teachers' voices. In colleges of education future teachers must learn in two departments to obtain the degree, future teachers' choice in Special Education sometimes were their first and major choice department and sometimes the supplementary department. Following

are the factors that were identified, each sub-category will present future teachers' voices in both learning contexts.

### ***1.1. Factors that promoted future teachers' choices of college type and Special Education***

Some factors were found to be similar and others differentiated future teachers' choices in both learning contexts. Autonomous choice of college and Special Education Department includes future teachers who have chosen Special Education from free choice. Several factors promoted their choice: college reputation; geographical proximity; family, relatives and friends; cultural, political and religious preference; choice of language; desire to learn and practice Special Education; and the option of professional development in the future. These reasons will be elaborated in the following sub-sections:

#### *1.1.1. College reputation*

In mixed colleges most voices indicated the good reputation of the college, the high standards in education and the good atmosphere:

*"I heard about the college respectable higher degree ... that will open to me new horizons and many options in the labor market in the future", "college majors are recognized in all sectors, and I recommend it", "Because it is the country's leading academic institution" (FG6, FG1).*

Some future teachers emphasized that mixed colleges have better prestige than Arab colleges, and therefore they received recommendations from others:

*"High education level, college reputation and the 'good name', the close relations between lecturers and students, professional faculty staff and supportive atmosphere", "I received many recommendations, encouragement and compliments about this college from people who graduated ...", "known that her graduated students occupy positions of excellence more than those graduated from Arab colleges", "I heard bad things about Arab colleges... bad learning conditions and it's more of a school than college...!" (FG1, FG2, and from the responses on the two open questions in the questionnaire).*

The later findings are consistent with the findings of Agbaria and Totri [31], and Totri [187].

Future teachers from mixed colleges reported that they will be preferred by school managers to teach over those who graduated from Arab colleges:

*"Because it provides more job opportunities after graduating more than learning in Arab colleges" (FG5, FG6).*

Another student added her socio-political view of her college choice which she had heard from relatives:

*"No racism and segregation between Arab and Jews...the college atmosphere is similar to the atmosphere of a home and there is no racism" (FG4).*

In Arab colleges some voices pointed to the good reputation of the college, atmosphere that is close to home, and the recommendations they received specially from family and relatives who graduated from it. As indicated, the choice of some future teachers from Arab colleges was due to the good reputation of the colleges, although these voices were stronger among the future teachers from mixed colleges:

*"My mother studied here, and I have also friends that are studying here... they recommended this college" (FG8).*

#### *1.1.2. Geographical proximity*

In both college types some future teachers' choices were due to the fact that the college is close to their home, and therefore less expenditures on travel or student dormitories:

*"There is no need to stay away from home", "It is close to home", " I want to become a teacher, I'm a mother of a child, and the college is close to home, and the times of the college suites me" (FG4, FG8, FG9).*

#### *1.1.3. Family, relatives, and friends*

In both college types some future teachers emphasized the influence and encouragement of family, relatives, and friends in their decision making. Some future teachers told their story of when they arrived with their parents to register to college. They were pleased to have the support and encouragement of their parents and families in such a difficult decision. Also the presence of a significant figure or supportive company such as close friend, old friends from school, brother, or fiancé promoted some future teachers' choices:

*"My sister is studying here, and she encouraged me..., and it's relatively close to my house", "I wanted to specialize in Special Education at the university, but I had no good psychometric score, my mother studied teaching here and highly recommended and I am very pleased I was convinced", "Many family members studied here and they highly recommended the college and the atmosphere, ..." (FG2, FG7, and from the two open questions in the questionnaire).*

#### *1.1.4. Cultural, political and religion preference*

In mixed colleges Arab future teachers' choices were due to their belief that it is well to know the "other" culture and tradition, to improve their Hebrew language and to coexist with the Jewish students:

*"I liked the idea of studying in a mixed environment that gathers people from several places and nationalities", "It's also a secular college that do not give importance to religion", "education in the Jewish community, is more successful and close to the reality in the country" (FG3, FG5).*

In Arab colleges some future teachers emphasized their desire to learn with future teachers from the same culture, language, norms, religion, and tradition. Some future teachers stated that these aspects made them feel more comfortable, related and belonged to equal peers from the same society. Others indicated honestly that they do not want to encounter with the group of the "others". They stated existence of racism in mixed colleges, and their lack of desire to integrate and learn with the "others". Others were afraid of discrimination against them, and feared of inequality and not receiving equal rights. Some future teachers have been unwilling to integrate into mixed colleges because the customs and traditions of the Jewish society differ from the Arab society, and therefore chose Arab colleges:

*"Because most of the lecturers are Arab... like me", "I chose this college because it is close to home and admission requirements where easy, and the overall atmosphere is similar to the environment I come from", "because it's an Arab college and it's not mixed with Jews", "the desire of my family and just because it is an Arab college", "because of the Arab conservative environment which is appropriate for my thoughts and beliefs", "the majority of the students are Muslim", "I'm learning here because this place is the closest to my habits and traditions ..." (FG7, FG8, FG9).*

#### *1.1.5. Choice of language*

In mixed colleges future teachers chose and preferred to learn and to encounter with Jewish future teachers in order to master the Hebrew language which is the official language in Israel. Hebrew language has prestige and high status among Israeli Arabs, and there is a willingness to learn the language and master it [107]. Language according to Gardner [86; 87] is an important part of the individual's identity [86; 87]. The students stated the need and stressed their desire to control the spoken and written language and the scientific terms of the profession in Hebrew, although it's more difficult and requires a dual effort:

*"Practical life after graduation requires good knowledge of the Hebrew language, and I also want to complete my academic education and register to second degree... so it's better to study in Hebrew..." (FG3).*

In Arab colleges future teachers' choice of college type was due to their will to learn in their native language, since they expected it to be more easier than Hebrew language, and some wished to avoid learning in Hebrew. Other voices stressed the fact that they will teach in schools

for Arab children with special needs, therefore it is much more effective to learn in Arabic language. It is important for them to improve their Arabic language, and to continue to be connected and related to the Arabic language and culture:

*"Because of the difficulties I have in Hebrew language", "lectures are in Arabic language and there is no need to speak in Hebrew", "after I finish college I will start to teach in Arab schools and it would be very hard for me to translate the term into Arabic, so it is better for me to learn from the beginning in Arabic...", "To be closer to the Arabic language and culture, and to Arab students and lecturers" (FG7, FG9).*

#### *1.1.6. Personal choice and desire to learn and practice Special Education*

Some of the voices in both learning contexts have expressed their desire and love for the profession, inner motives to help and contribute in developing the children with special needs, and personal experience and personal confrontation that led to the will of this choice:

*"Motivation to help children with special need... especially those with learning disabilities", "all teachers should have this training of children with special needs", "I came across many children who need special help, and I wanted to be part of the population that it helps... ", "a childhood dream...", "this is the most interesting and challenging subject... it attracts me", "I had the feeling that I can help the children emotionally, socially and develop their learning skills... I had previous experience with them before I went to college and it was the most experience that affected my choice of this department", "this domain really speaks to me, and it includes a lot of features and that fit my personality... we lack teachers with personal approaches and sensitivity", "I love to help these children in order to draw a smile on their faces and give them their rights in society and among the people", "because I'm afraid from children with special needs, and I wanted to break this barrier" (FG2, FG3, FG5, FG6, FG7, FG8, FG9, and from the two open questions in the questionnaire).*

#### *1.1.7. Special Education as a springboard for further professional development*

Another important finding is concerning the student's future plans. Some of the future teachers thought of Special Education training as a springboard for further study which they aspired occupations or career development such as the desire to continue study in management and academy teaching. This finding could indicate that perhaps they perceive Special Education as 'higher' than other teaching areas and therefore is used as an intermediate step between the teaching and the practice of professions which future teachers aspire to:

*"At first I wanted to study occupational therapy or communication disorders but was not accepted due to higher admission terms so I chose something a little bit similar to these subjects", "I wanted to become a social worker or a psychological counselor but was not*

*accepted, therefore after two years of unsuccessful attempts to gain admission I decided to become a teacher in the field of Special Education and found that this is the best college for teacher training colleges", " since it has a wide and interesting field and many possibilities for development in this field... it also contains an interesting specialties such as autism", "because it opens the possibility of learning a master degree in educational counseling" (FG3, FG7, FG8).*

Other voices in both learning contexts were those future teachers who chose Special Education because they wish to have good income from practicing this profession:

*"Because of the good income from this specialization" (FG8).*

Some of these findings are consistent with the findings of previous studies [see 70; 73; 108]. Other complex varieties of choices are worth further studying. The choice of the college was wider and not for reasons independent of the choice of Special Education in that college. Many common factors promoted future teachers' choices in both learning context such as college reputation and geographical proximity, but the pride of future teachers who choose to attend mixed colleges was clearly evident in focus groups, much more than those in Arab college. Other factors differentiated future teachers from mixed colleges than those from Arab colleges especially factors related to culture, politics, religion and language.

## ***1.2. Factors that hindered future teachers' choices of college type and Special Education***

Some factors were found to be similar among the future teachers' in both learning contexts, while others differed. Some future teachers' choices of college and Special Education Department were controlled or limited by the need to compromise or as a result of certain constraints. When they were asked "who really chose to be here or wants to be here", nearly half of the future teachers in the FG<sub>s</sub> did not choose to learn in a college or Special Education, and it was not completely by their free choice or following their first priority. They said they wanted to learn other professions such as registered nurse, occupational therapist or speech therapist, but they had to compromise for Special Education as a result of various reasons, such as: random choice, academic pre-requests and demands, language barrier, financial considerations, family compliance and constraints, such as parents' request to study close to home. These reasons will be elaborated in the following sub-sections.

### ***1.2.1 Society expectations of Arab women***

In both learning contexts some future teachers chose a college of education because they wanted to be a teacher no matter in what domain, the main thing is to be a teacher and to comply with the conscious and unconscious requirements of the society. Teaching in the future teachers' eyes is a convenient profession that matches the expectations of the Arab society from the Arab



woman as a mother and wife. This finding is in line with Al-Haj [35] which has shown that in the Arab society the phenomenon of “feminization of teaching” is obvious. The Arab society is still characterized as a traditional and patriarchal society therefore prefers the teaching profession which enables the Arab women needs to reconcile with the demands of home and work in the outside world [35], as described:

*"A mother should be just a teacher", "I wanted to study nursing, but girls always think about the future, about the house and the children", "you notice that we have no guys between us..." (FG6, FG8).*

### I.2.2. Random choice

Based on the Arab future teachers young age and lack of professional guidance some of their choices in both learning contexts were random choices, and more of a coincidence than conscious and reasoned or well thought decision. Some of them registered to several colleges and departments, and then started learning in the college or department that they had been accepted to, others came to the open days offered by the college for student registration and chose the Department of Special Education because they were convinced that day by the administration staff, based on their average grades. Some future teachers' choice of teaching profession is the result of their second or third listed choice in the college application. Others were simply not accepted to a university or in other colleges or departments so they had no other choice left, and others emphasized the minimal options that Arab youth have in higher education:

*"My choice was spontaneous", "I did not know other teacher training colleges", "lack of choice", "because there was no other option...", "that is the only college I registered in the last minute", "because I do not like any other academic disciplines, not math nor science" (FG4, FG9).*

These findings in both learning contexts are in accordance with the findings of previous studies in which the educational field is perceived as a default option, differently from other academic fields in which Arab future teachers feel they basically have no possibility for development [70; 73].

### I.2.3. Academic pre-requisites and demands

Academic pre-requisites and demands of university, colleges and departments, limited future teachers' choices of the college and Special Education Department, in both learning contexts. Factors such as age limitations and psychometric scores hindered their choices of the desired university, profession, college and department. These factors were heard among several voices in both learning contexts, as described by some future teachers:

*"Because here I was accepted, and there was no time until the beginning of the academic year", "My learning in Special Education Department is not my choice, but I was not accepted into the Department of Science, the college gave me only one option which is Special Education and Arabic language", "at first I started learning in English Department but I did not pass the exam, so in college they recommended to me to apply for this department, and I was accepted!" (FG1, FG3, FG4, FG8).*

Some future teachers chose college education because it's easier to be accepted compared to universities:

*"I never thought I will be accepted to a university" (FG5).*

#### *1.2.4. Language barrier*

In mixed colleges some future teachers had to be re-examined in the Hebrew proficiency test in order to achieve the needed minimum grade, and some had to register and learn a preparation course in Hebrew in order to reach the standards in the test, as one future teachers said:

*"I did not reach the needed grade so the college suggested the Hebrew preparation course in the summer..." (FG6).*

In Arab colleges some future teachers reported their initial will to learn in a mixed college, but their inability to meet the required test score in the Hebrew proficiency test, which is an obligatory requirement in mixed colleges, hindered them from getting accepted. Others stressed the double effort required in mixed colleges for translation and understanding learning materials taught in second language:

*"I wanted to attend mixed college but I could not pass the required grades in the Hebrew proficiency test... and the psychometric exam" (FG7).*

#### *1.2.5. Family compliance and constraints*

Some voices in both learning contexts indicated that although some changes are occurring in the Arab conservative society but still parents' voice affects and influences their choices. They listen to their parents, comply and obey them. Some said it's their parents' will, and referred to it as a negative aspect that blocked their free choice. Some of them, especially in Arab colleges indicated the prohibition of their parents to learn in mixed college:

*"Because my mother advised me to do so, therefore I choose this college in order to please my parents", " my parents do not like me to sleep outside the house" (FG7).*

#### *1.2.6. Financial considerations*

In both learning contexts some future teachers' choices were limited because of financial considerations and difficulties. Several extrinsic reasons led them to the decision, some chose

because of geographical proximity, in order to save or avoid renting an apartment or student dormitories:

*"First of all because of the economic difficulties I did not have the option to choose a different place, so I choose it because it's close to home, I cannot afford students' dormitories", "It's close to my work ...so I can keep my work and help my family" (FG2, FG9).*

From this theme it is obvious that some future teachers' choices were promoted by different factors, while other choices were hindered by several factors. Some of these findings are consistent with previous literature, and the rest of the findings should be further studied. In Nora [136] it was found that factors considered by future teachers in making their choice to attend a college included individual attributes such as socioeconomic class, ability, parental education, residency characteristics, parental encouragement, peer encouragement and support, and ethnicity. Institutional factors include costs, financial support, special academic and nonacademic programs, institutional reputation, location, social atmosphere, institutional size and class size [136]. Also, the student choice theory, see Paulsen & St. John, 2002; St. John et al., 2001 In [161] argues that students' decisions are shaped by their socioeconomic background such as home life and school environment. That is, long-lasting influences that an individual gains throughout their home and school environments- such as values, attitudes, aspirations and perceptions- generate a framework for individual decisions [97]. As in Nora [136], the college choice process is a complex effort and many questions remain unanswered, demonstrating that further research is necessary to unravel its countless complexities. It is hard to ignore that quite a lot of students who chose colleges of education, and some also Special Education, were out of extrinsic motivations, in other words, a choice that they were 'forced' to make by several hindering factors as was mentioned earlier. This finding supports the research of Diab and Mi'ari [73], who found that 75% of the students chose colleges of education because there is no other options. As mentioned above, these choices are believed to have an influence on future teachers' experiences in college, and on their perceptions and expectations from Arab and Jewish peers and lecturers, college, and from the Special Education program before and in the first period in college.

## **II. Future Teachers' Experiences**

This large theme is divided into two sub-categories. First sub-category is the future teachers' perceptions, these perceptions are divided as follows: perceptions of peers and lecturers (Arabs and Jews), services that the college provides, and of the Special Education program and profession. Second sub-category is the obstacles, challenges, academic concerns, feelings of pressure and future teachers' need for support.

## ***II.1. Future teachers' perceptions***

### *II.1.1. Future teachers' perceptions of Arab and Jewish peers*

The future teachers raised their perceptions regarding relations with Arab and Jewish peers. They tried to clarify how they see and understand these relations. In mixed colleges pre-service teacher's initial experience is of cultural shock, and the dominant experience of the students is often exclusion and even ignorance by their Jewish peers. future teachers experiencing rejection causes them to withdraw into themselves, to connect to peers from the same culture in order to survive the study period. This relatedness to the same group helps them cope with the difficulties and challenges they face at college. As in the words of one future teachers:

*"I feel racism from Jewish students... especially when they hear us speak in our language", "even in mixed classes you can notice that Arab students always sit next to each other as a group..." (FG7).*

They expect to get help from their Arab peers, and to support one another, which provides a sense of 'collective competence' as one future teachers described it:

*"We support each other... when I have difficulties in Hebrew terms for example my fiends help me", "first weeks at college I couldn't manage to write the lecture materials... so we completed the materials from each other..., together we can succeed", "I can't imagine surviving the first period at college without my friends' help, they have become my best friends" (FG1, FG3).*

Other future teachers said they get help from the Jewish peers if they ask, such as completing missing materials, or copying lecture materials, but no further help or friendly relationship that exists after the classes hours:

*"I would like to have Jewish friends... I chose to learn here in order to get to know the 'other'...but it's not good enough for me...", "I expected to make new friends at college... Jewish friends ..." (FG2, FG6).*

One student described the differences between cultures and getting to know the other's culture through her encounter with the Jewish majority future teachers in class. She said excitedly:

*"I'm studying in a workshop with two Arab students and the rest are Jews. I get to know many things about their society ... they laugh at funny things that we don't laugh at ... cry about things we do not cry about ... you see things that are really different from us ...".* Then she expressed her disappointment from a relationship with her Jewish peers in class: *"I would like to*

*be in relationship with them... but here they are racists... not the lecturers but the students" (FG1).*

Other future teachers in mixed colleges described a gap between them and Jewish future teachers in terms of personality, independence, and ability to self-expression:

*"Jewish students in my class are in the field by choice, they know what they want from their life, I see they have confidence and are not confused like us..." (FG1).*

Another student from a mixed city who participated in the same FG added her perspective on the training that the Jewish future teachers receive in their schools, and the significant differences from Arab schools:

*"Jewish schools give importance in building and developing a strong personality... Jewish students have more learning motivation...you feel you are a second- class citizen and you don't have the same opportunities like Jews have " (FG1).*

These results are similar to other research results by Zeidner & Ben-Zur [206] which argued that Arab students evidenced lower levels of life satisfaction, as well as perceived personal resources, when compared to their Jewish peers.

In Arab colleges all future teachers are Arab, they expressed their expectation to get help and support from each other in their studies, and to have a relationship with one another. Some future teachers noted positive competition between peers and a good atmosphere in their group which increases their sense of relatedness and their learning motivation. They described a cohesive group support as a source of their strength:

*"Our group is very special...I come to college willingly and happily in order to meet my friends..." (FG9).*

Perceptions and relationships were more positive among Arab peers in Arab colleges, and with Arab peers in mixed colleges, compared with Jewish peers. Arab future teachers in mixed colleges were disappointed from the non-sufficient relationship they have with Jewish future teachers, they had expected and aspired for more.

### *II.1.2. Future teachers' perceptions of Arab and Jewish lecturers*

Future teachers in both learning contexts reported that lecturers, especially instructors, have a highly effective influence on their learning motivation. In mixed colleges some future teachers reported a feeling of overt or covert discrimination, rejection and ignorance by lecturers. Others reported in their own words the practice of policy of favoring individuals belonging to groups known to have been discriminated against previously. Some experienced and reported a feeling of reverse discrimination, some reported receiving a positive attitude which they argue is not true, and as attempt to show encouragement and acceptance which was felt to be forged and

fake. future teachers noted that these experiences of discrimination and rejection causes them to withdraw into themselves. It turns out that some Arab future teachers in mixed colleges feel isolated not being in the mainstream of the college, and not accepted by the “other” peers. They experience their study period as difficult, unpleasant, and they face these difficulties by relatedness to peers from the same culture, by solidarity between them and their friends at college, helping and encouraging one another, and constant encouraging and support they receive from parents and families:

*"In classes with Jewish lecturers it's just like you do not exist in class", "I felt discrimination in one of the classes where the Jewish lecturer did not give us the respect, but on the other hand was appreciative and respectful for the Jewish students' opinions", "Jewish lecturers are arrogant, sometimes they are inconsiderate towards us" (FG2, FG1, FG6).*

In the other opposite side, some future teachers reported feeling a true and sincere attitudes from Jewish lecturers, but less from Jewish peers (as described in 2.1.).

Some future teachers in mixed colleges, opposite to their expectations, felt that they were unfairly treated and not supported enough by the Arab lecturers, but were more equally treated by some of the Jewish lecturers. They reported several demands and expectations for more understanding and help from the Arab lecturers. Some Arab future teachers undermine Arab lecturers and feel that the "other" lecturers more expert in their domain. These voices of disrespect for teachers which contradicts the socio-cultural norms of a traditional society that maintains respect for authority figures. Voices of disrespect were heard and it was usually towards some Arab lecturers in mixed colleges. future teachers claimed they felt discrimination from Arab lecturers who are actually from the same culture. Some future teachers complained about lecturers' arrogance. Some complained that the lecturer was difficult to understand, and lack the ability to explain the learning materials clearly. Others did not mention any shortcomings of the lecturers, rather admitted that they lost interest and concentration in the first lessons, and then were unable to recapture the materials:

*"I feel superiority of the Arab lecturers... instead of supporting us, they do not respond to requests or questions. Jewish lecturers treat us well, but Arab lecturers that are supposed to understand us are not trying to help" (FG6).*

Another future teachers who shared her opinion while crying:

*"I'm considering to quit study... I feel that Arab lecturers... not all, but I can say most of them try to make it difficult for us on purpose...they are strict, they should help us more and encourage us rather than making it more tough" (FG4).*

Some future teachers described Arab lecturers treating the Jewish peers in a positive way and almost ignoring the Arab future teachers in mixed classes. This attitude they claimed has negative influence on their motivation in class. Some future teachers described the Arab lecturers intolerant towards them. future teachers expect that Arab lecturers actually save them, they are more tolerant towards the 'strict' Jewish lecturers than the Arab lecturer, and have the fantasy that Arab lecturers have to understand them and help them. A possible feelings of inferiority among Arab lecturers who wants to please the ruling majority:

*"This teacher speaks to us in Hebrew even when we are alone with her... she treats the Jewish students with kind attitudes, and she gives us the attitude that we are inferior from her... like we are one level lower than her..." (FG1).*

Some future teachers in the FG discussions tried to analyze and explain the Arab lecturers' attitudes towards them, and argued with other future teachers in the group:

*"They are very good lecturers, but I think they 'push us' in order to achieve success like the Jewish students... ", "I think they are under stress, they are from our same culture, and speak the same language so they want to prove their abilities..." (FG3, FG4, FG6).*

Academic socialization in schools causes Arab students to expect assistance from teachers when dealing with educational difficulties. These characteristics make double barrier during higher education: the nature of learning in Arab schools does not prepare the Arab student with the necessary skills in higher education, therefore students are also less independent. Students expect from college staff and from lecturers to have more assistance and guidance, these expectations do not match the reality of the academic system where students have to demonstrate independence and personal responsibility.

Other future teachers in mixed colleges emphasized the opposite side, they felt that the Arab section and the Arab lecturers are a kind of a family, a home and a shelter that can help them dealing with challenges and overcome difficulties. They indicated that these lecturers have positive influence on their learning motivation:

*"Most of the Arab lecturers are the best lecturers, they understand us and try to help us...", "all lecturers I met this year gave us the maximum they could", "there are lecturers that are considerate, they provide us emotional support and learning motivation", "Arab lecturers are the best because they give us a good attitude, support and encouragement, we feel that we have a great support, they are more like parents, especially that we are a minority in college" (FG2, FG5, FG6).*

In mixed colleges future teachers told that it's easier for them to learn the lessons by Arab lecturers than the lessons by Jewish lecturers. They feel more confident to express themselves in

classes in Arabic language. However, they were ashamed to speak Hebrew in front of the class with Jewish lecturers and peers. They had no confidence in their Hebrew language, and often did not understand anything from the lessons, especially in their first weeks at college. They indicated the language as a barrier (as described in 1.2.3.). Some future teachers also preferred the Arab lecturers' teaching methods:

*"Lessons in Arabic are much easier to learn", "although my Hebrew language is very good, but still I had difficulties especially in the first year when I read articles in Hebrew, ...sometimes I did not understand anything...I felt a gap between us and the Jewish students", "Arab lecturers teach the materials more clearly (FG1, FG3).*

In Arab colleges most voices expressed their satisfaction from the relationship with most Arab lecturers. They highlighted their professional and academic abilities, and their positive attitudes:

*"Arab lecturers are charming, understanding and considerate, particularly when there are difficult circumstances", "they are professional and they treat us very well" (FG7).*

At the same time voices of lack of appreciation for the Jewish lecturers were heard from future teachers in Arab colleges who claimed that the Jewish lecturers underrate their work, and since they are teaching in Arab colleges they do not invest at work:

*"Jewish lecturers I think if they teach Jewish students they would treat them differently, and they would be more serious" (FG8).*

In general, some future teachers' expectations and requirements from lecturers varied, and others were common in both learning contexts. Future teachers in both contexts wanted to voice their opinions toward lecturers, and it was clear that in general they expect to have more support, and understanding especially in assignments, exams and compulsory attendance in classes, assignments and papers' deadlines, and also consideration and understanding in personal situations.

### *II.1.3. Future teachers' perception of college services, administration and physical space*

The first impressions and support during the registration process in college affects the student's attitudes, and creates positive expectations, as one student described it when telling her story of her registration to the college after she had been in the university:

*"When I went to register to the university, I saw that the university atmosphere has no intimacy and closeness...a lot of students in each hall...but when I arrived to college and spoke with the head of the program I felt it was the right place for me here and that this is the place where I want to be" (FG5).*



In Arab colleges future teachers reported the negative reputation they had heard about the college, and the low level of academic learning before they started learning. Yet some chose it because it is easier to learn and achieve high grades. However, when they started learning the rumor was contradicted and refuted. As described by one student:

*"I heard many bad things before I started, but it turns out that's not true ... I'm experiencing a high academic level and excellent lecturers" (FG7).*

Nonetheless expectations from college staff and services in Arab colleges were found to be negative. Nearly most future teachers expressed their disappointment about the lack of services and the desire to improve the access to services at the college. They felt a sense of chaos regarding management, student services, and other services provided such as computers, copiers and printers. Some future teachers made a comparison with mixed colleges and universities that they had heard about the services offered for students:

*"I feel chaos and uncertainty in many aspects in college... many things are unclear... and lack of knowledge about existing services if there are any!...", "I have many reservations about the college services, and it's old buildings, it makes me feel depressed, I just want to graduate", "no mail box for submitting work, then you have to chase the lecturer to give him the job" (FG7, FG8, FG9).*

Future teachers complained about the administration staff that are not providing good interpersonal services, thus they feel neglected by the college. When this theme was aroused in the FG many reactions came up, continued anger at the college, secretariats and administration staff, anger on compulsory attendance policy.

*"The attitude of the lecturers is good, but the secretaries attitude is nearly abnormal..." (FG7).*

There were many complaints about the lack of choice between the different courses. The future teachers said that it is impossible to build a timetable that is tailored to the individual needs of the student. In addition they described many defaults while expressing their disappointment and frustration:

*"Secretariats tell us that if we want to learn we need to accept the schedule, we cannot change existing courses ... but we are working and for us this schedule is not suitable" (FG8).*

Another student added lack of clarity of rights and obligations in order to be aware of the study rules at college:

*"We need to know what our rights and obligations in college, no college rules clarifying these matters" (FG8).*

In mixed colleges future teachers were overall satisfied from the services that the college offers to them, such as the administration offices and staff, library consultant, educational support services, learning centers and social support. They stressed the fact that these services are very beneficial and helpful for their learning progress. future teachers also expressed their satisfaction from the environmental spaces in college such as buildings and green spaces:

*"Very good service, they give us all the services we need, inform and update us by email" (FG1).*

Other future teachers in mixed colleges said they are not satisfied because the college do not inform them about these existing services. In the group discussion it turns out that they had expectations from college to inform them with the services, instead of self -initiative or self-determined behavior from the students, for the investigation and search of services which they need from college. Some sought to have special services for the Arab sector, and in particular support and guidance during their study years.

*"I am not satisfied with the services, there are many things we do not know about them", "there is no specific services to our society, there is no one to support and accompany us if we face a problem", "the student consultant do not do her work professionally" (FG2, FG5).*

Some future teachers claimed they are not treated equally by the lecturers and the administration staff:

*"Jewish students are given special treatment, but we are not receiving the same treatment as they are, neither in classes nor in administration offices", "the administration really makes it difficult for us ... I wanted to move a course to the next semester and they did not give me a permit ... probably because we are Arabs they play these games on us" (FG2, FG4).*

Some future teachers claimed of not having special entertainment programs for Arab future teachers, and the missing of scholarships for Arabs:

*"Very often the Arab section is neglected, for example, there is no celebration of events that are unique and are related to our holidays... the entertainment side as I see it is dedicated to the Jewish section, and I don't wish to participate with their activities which do not mean much to me", "there is no scholarships that meet the needs of Arab students whom did not serve in the Israel Defense Forces (IDF) or national service" (FG7, FG8).*

In mixed colleges future teachers' expectations and perceptions from college varied to a great extent, and sometimes were contradicting each other. These contradictions were obvious in the group dynamics, future teachers' voices were divided between two major sides. In one side, future teachers dominant experience in the Arab sections of mixed colleges is of discrimination, racism, exclusion, rejection and feeling of ignorance from some lecturers, staff, and Jewish peers

(in the mixed classes). It turns out that some Arab future teachers feel a sense of isolation in the Arab sections, which increases their difficult experience:

*"I chose mixed college, but when I started learning I found myself learning in the Arab sector, I know that we have mixed classes with Jews, but I feel that this separation is due to discrimination", "I just want to finish my study and get my degree as soon as possible" (FG1, FG5).*

In the other side future teachers argued with the former voices in the dynamic groups, they tried to clarify to them that the purpose of the Arab section is to provide the language and the cultural adaptation:

*"At the end we will start teaching in Arab schools... the courses that we learn with the Arab lecturers provide us with teaching methods and materials which is adapted to our schools" (FG5).*

In both learning contexts most future teachers asked for total 'academic freedom' especially emphasized the desire to have the choice to attend or not attend the lectures. They felt that compulsory attendance requirement of the lectures was seen as a controlling aspect of the college and staff. They argued that it reminds them of school, and claimed that universities have no such requirements:

*"At universities there is no such requirements... we are adult people and we can be responsible for completing the missing materials when we don't attend classes", "some lecturers even give us comment when we leave class earlier", "I arrive to classes not to study but to list my presence (FG1, FG3, FG8).*

Other future teachers argued that total freedom can decrease their will to finish assignments:

*"If I'm given total freedom I would not work on my assignments or finish anything on time, I need this limitation, but I expect from them not to treat us as children" (FG1).*

Also in both learning contexts future teachers argued that some courses should be on-line courses, since its frontal lessons that are based on presentations that can be uploaded to the course website. They claimed that this solution will give them more free time to work and earn money:

*"Some classes should be on-line, since we just copy the presentation...", "there is no discussions at class....so we feel we are wasting our time" (FG2, FG6).*

Some future teachers' perceptions, expectations, and requirements from their college varied, and others were common in both learning contexts. future teachers in both contexts

wanted to voice their opinions towards their college, their anger on one side, and their satisfaction on the other side were clearly heard.

#### *II.1.4. Future teachers' perception of Special Education Department and profession*

In general the Special Education Department and program had positive evaluation in both learning contexts. The future teachers evaluated positively the program and indicated that it is above their expectations, although they had some reservations regarding some program and courses issues. Many students were satisfied from the courses in the program and the training in the practical field and it was their source of motivation, they felt the personal benefit from learning. Some are already very interested in starting working as teachers in Special Education frameworks, these future teachers want to implement the learning tools and methods they acquired in their training, and they see that their professional future is in the field of Special Education:

*"Excellent and interesting program, it builds our personality and contributes in developing a therapeutic and supportive attitudes towards the students with special needs. In addition to the practical experience in schools despite great pressure, it helps us to apply what we learned in the courses", "I feel very good that I chose this program" (FG2, FG8).*

Other future teachers complained about the practical work field and the efforts they invest in order to prepare for it (see 2.2.).

Some future teachers (see I.2.1., I.2.2.) indicated that they chose Special Education out of extrinsic choices, but when they started learning they were positively influenced and fully satisfied of the teaching and training program. Their positive evaluation of the program made them feel enthusiastic and willing to continue and practice this profession in the future. Others chose out of intrinsic motives and stated that they are pleased and satisfied with their decision:

*"My choice of this department is the most correct decision I made in my life" (FG2).*

Many voices from both college types indicated that their choice to learn Special Education in college rather than university was motivated by the knowledge and expectations to succeed easily in courses, so their expectations were affected from this knowledge. Yet when they started learning in the program they were surprised to find out that it's not easy, as described by this student:

*"The possibility of obtaining high grades is relatively easier compared to a university..., but now I know that this program is one of the most challenging programs at college" (FG4).*

Some future teachers in both learning contexts emphasized the support they are receiving from the head of the program, and its effect on their motivation to continue their study despite the difficulties:

*"In the first year we faced many challenges, but the head of the program supported and helped us and that's what attracted me and made me want to continue my study" (FG8).*

Many voices from both learning contexts indicated that their choices were affected by the notion of finding a job in the future:

*"Because of the secured employment opportunities ...", "because it is one of the best colleges to bring out highly qualified teachers and after I receive my degree I can find a job and not only get a certificate", "because it has the specialization that I want, and all the qualifications which will help me in the future as a teacher" (FG2, FG7, FG9).*

A shocking gap between expectations and reality. future teachers' pre-knowledge about job opportunities in the domain was faced with the fact of excess of teachers for Special Education. There is an excess of teachers in the school system, and specially for Special Education teachers [59, p. 132]. Many future teachers reported positive evaluation of the Special Education Department program, while sharing their worries regarding the possibility of not having job opportunities in the profession. A gap between what they are experiencing right now in college and the fear and worry of not finding a job in the profession. In the last few years a large number of future teachers choose to study Special Education in preference to other fields in the colleges of education. The graduated students are having difficulties in finding an employment for the new mandatory induction programme [221] for all beginner teachers in Israel which is a trial period required for having a license for teaching in schools, and difficulties afterwards in finding vacancies in teaching in Special Education field. This knowledge is frequently not clear or known for the students prior to their registration, or from the beginning. In their first year at the department and from their practical experience in the field, they are exposed to this fact, and this causes them to consider quitting college at all, or consider switching to another department.

Second, third, and four year future teachers were nearly depressed of the fact that it is very difficult to find work in Special Education field after graduating from college, as one student described:

*"In the first year my motivation was higher, I enjoyed going to practical work at school, I prepared well for the practical work... this year I drag myself to college and to school, I am not creative as I was in the first year, I'm not happy and I thought frequently about quitting college.... I really don't know what I'm doing here...after all the effort I'm making at college, although I like what I'm learning but it's very depressing knowing that I won't be able to find work..." (FG3).*

Other future teachers, especially third and fourth year future teachers were driven by this knowledge to continue their study to second degree, and to specialize in more specific domains in Special Education:

*"For me this has given me a push for specializing in a specific domain, and to continue learning for second degree..." (FG3).*

In Arab colleges future teachers complained about the lack of options in choosing different courses. Some even said they don't have the possibility in choosing between the different courses. They claimed that even the optional courses are already fixed in the program with the obligatory courses:

*"There is a negative side in the program... a lot of free time in between classes", "there is no possibility in choosing even between the optional courses" (FG7, FG8).*

In Hemsley-Brown [103] it was found that future teachers already had preconceptions about professional and academic options (and some colleges) before they entered an official process of decision making. These preconceptions had been shaped within the context of the family and among peers. Different perceptions were revealed through the FG as was indicated above, these perceptions are part of the future teachers' experiences, and it influences their learning motivation.

## ***II.2. Obstacles, challenges, academic concerns, and need for support***

Future teachers shared about the obstacles and challenges they face, about their concerns and feelings of pressure, and their need for support during learning at college. In both learning contexts future teachers expressed their expectations of themselves and of their families, and concerns regarding their ability to succeed in college, and overcoming the challenges they face in their studies. These voices were dominant among those in mixed colleges:

*"Afraid of failure", "afraid to be frustrated and tired from stress", "to meet the expectations of my family for excellence" (FG1, FG4, FG5).*

In both learning contexts many of the future teachers' concerns were regarding meeting with children with special needs in different learning settings of the practical field experience:

*"Stressed from the meeting with children with special needs", "afraid of the big responsibility towards children", "afraid to work with children with intellectual disabilities or autism spectrum (FG4, FG5, FG9).*

Other concerns in both learning contexts were regarding the relationship with the teacher trainer at school, and her effect on promoting or reducing their motivation. As one student described the encouraging and empowering attitude of her teacher trainer:

*"I sent her an email and within ten minutes she would come back to me with precise notes, and a lot of encouragement, including if necessary special comments she would give it to me in a very positive way ... she has never offended me..." (FG1).*

Other student described the negative influence of her teacher trainer on her motivation:

*"My teacher trainer has a lot of demands...which increases my worries and stress... I feel a sense of suffocation . I'm not ready for that" (FG1).*

In both learning contexts, future teachers reported their difficulties with dealing and adjusting to overwhelming academic demands. The most stressful factors that affected their motivation is the academic burden, which is a primary source of stress, rather than other worries such as work, family and other personal matters. This finding is consistent with previous findings [205, p.37].

In mixed colleges, most future teachers reported extra difficulties as a result of 'cultural shock', and their need to adjust to a new place with new and unknown norms and foreign language. Also difficulties in reading and understanding long Hebrew articles, academic writing, English language courses, and preparing for assignments. The study of Sela & Resesi [172] showed that Arab students in Jewish colleges have to adjust to a new learning environment in a cultural and social setting unlike their own. On the instructive level, the students must deal with language deficiencies while adjusting to the differences between the teaching methods used in the Arab education system and the Jewish (mixed) colleges [172].

*"Constant transition between the various languages is very confusing. Sometimes we learn with Arab lecturers in Arabic, but most terms, learning materials and presentations are given in Hebrew, and the course booklet and test are also in Hebrew", "very challenging during the examination period and assignments submission ... it is very difficult to write assignments that require reading and integration of articles that are in languages other than our mother tongue language ... In addition to that, we have to study for exams that are usually one after the other and there is not enough time to prepare" (FG2, FG6).*

Those future teachers expressed their difficult feelings:

*"I feel stifled ... cannot breathe ... we are like in a prison ..." (FG2).*

Another student added: *"All lecturers have the same requirements... as if agreement between them ... all insist on compulsory attendance... but sometimes there are good reasons", "Tasks can be tolerated but what you cannot tolerate is the lecturers attitude for compulsory attendance" (FG2).*

In both learning contexts many future teachers indicated that they had higher motivation during the first year of study, but after being in the second or third year of study they feel a lot of pressure:

*"In the first year of college I was able to study and work and I still have free time ... This year I have no free time at all... it makes me feel down..." (FG2).*

This finding is consistent with a previous finding among Arab future teachers study conducted by Saada [138] which showed that juniors were found to be more motivated than freshmen and sophomores, but freshmen were found to have "a more motivational behavior" than sophomores. Another study that tested motivation and satisfaction among students of education in the course of their studies found that their satisfaction in their studies and the motivation to become teachers lessened between the first and second year of their training. On the other hand, their sense of efficacy for teaching remained high throughout all four years [171].

Many future teachers in both learning contexts indicated that their choice to learn Special Education in college rather than university was motivated by the knowledge of the ability to achieve easier success in college, and the shorter study period. Nevertheless, when they started learning they were surprised from the high academic standards. One of the most stressor factors in their learning experience is the need to be prepared well for practical work classes every week:

*"I thought it would be easier for me to study Special Education at college, but I realize now that it's too difficult and requires a lot of effort, and especially preparing for the practical work at school each week...", "writing lesson plans and preparation of didactic tools and games for teaching each week takes a lot of time and it's very difficult and challenging" (FG5, FG8).*

Future teachers were asked about these challenges, experiences and pressure in college and how it affects their learning motivation. Some future teachers described a general lack of interest and attention in classes, unwillingness to participate in class discussions, and distraction. Some told they tend to occupy themselves in classes with matters that do not relate to the lessons. Besides, they were unwilling to do their assignments and papers which were obligatory for passing the courses. future teachers did not understand the purpose of assignments that do not have clear goal which is related to the subject, and felt that it is just time consuming. future teachers do not see the real learning objectives of their homework and don't estimate its value. These voices were more clearly dominant in mixed colleges, as described by future teachers:

*"We ask for delaying of the submission of work until the last minute, sometimes there is no choice apart from writing and getting things done during lessons", "give up on high grades or getting low grades than I wanted", "I heard that some students copy assignments and papers*



*from advanced years students", "ask the lecturers to delay submission of work ... especially the Arab lecturers, they should understand the difficulty and be more considerate ... give us more time .... we do not manage to withstand this pressure ... " (FG1, FG2, FG4, FG5).*

Some future teachers described their difficulties in understanding the learning materials, and making assignments without any understanding of the learning materials:

*"Really... I'm sitting in class but I don't understand anything of the material ... I will do the assignment just to be recorded and exempted", "I read the article but I did not understand anything of it..., I wouldn't have come to learn here if I knew this" (FG2).*

Some future teachers in mixed colleges stated their difficulties in self-expression within classes, especially in Hebrew language:

*"At the beginning of the first year at college I could not understand the lessons that were taught in Hebrew language by Jewish lecturers", "I prefer not to talk because I'm scared they would laugh at me" (FG2, FG5).*

Future teachers added the difficulties in classes in Hebrew language and also difficulties of the transition between Hebrew and Arabic language with Arab lecturers:

*"There are lecturers who speak in Arabic language but bring their presentations and exams in Hebrew ... and so we cannot solve well the exams" (FG2).*

Other future teachers from both learning contexts described the negative side of the external pressure and demands exerted by lecturers on them which decreases their learning motivation:

*"The college has a lot of demands and it makes students lose the pleasure of learning and feeling extremely pressured", " I feel very bad each morning when I arrive to college..., the truth is that the lecturers makes us hate the college and the learning materials ... so I do not have the desire to learn" (FG1, FG9).*

Other voices in the same groups argued that this pressure and challenges drives them to try harder and give their best to prove themselves. They are more self-determined and have the will to face these challenges. In their eyes deadlines for submitting assignments and papers for example, causes them to commit to learning, and to organize their schedules in order to finish on time. It is perceived as a motivational factor:

*"If I'm given total freedom I would not work on my assignments or finish anything on time, I need these deadlines..." (FG1).*

Furthermore, most of the future teachers in both learning contexts, when discussing their learning motivation, cited some positive aspects of their lecturers' teaching approach in class. Several student suggested that the key to motivate them in class is making lessons more

interesting. Other future teachers added that a general lack of interest and attention in some classes, although the learning materials could be interesting, but "boring teaching methods", such as reading the presentations, frontal lessons and less open discussions causes them not to be engaged. In both learning contexts future teachers suggested on-line classes that do not require mandatory attendance, and supports personal responsibility, autonomy of the individual, and self-regulated learning. future teachers claimed there is no need for attending these classes, and can benefit more by studying the material at home in their free time. The on-line lessons as students claimed, can save time to work and earn money for paying the tuition fees.

Future teachers clarified that direct effort to get better attention in classes would not succeed. Most of them emphasized the importance of establishing a positive relationship between lecturers and future teachers for enhancing their learning motivation in class:

*"Having a good relationship with the teacher gives you support and motivation... when you know that you have someone behind you to support you do your best and you are filled with motivation" (FG4).*

A cultural change has been heard from future teachers especially in mixed colleges is the fact that future teachers go to work in order to provide help to their parents in paying the tuition, and for self-financing. A move from financial dependency on parents to more independency. The Arab society is in a process of change from a collective society to a more individual society. Changing towards financial independence from parents increases their sense of pressure in college:

*"I finish studying at college and go straight to work until the night, I come home only to sleep...like a hotel... I feel very stressful" (FG3).*

When future teachers were asked about their general experience in both learning contexts, despite the described pressure, some stated the empowering and strengthening experience and the positive effect on their personality, feeling of pride, ability, and confidence:

*"An experience that you cannot give it up", "my experience is good but the pressure was above expectations and above my ability to get along with all of the obligations. I know that this pressure helps me develop my identity as a teacher", "A great experience, I feel that all the difficulties I faced were a real turning point in my personal life... my studies here have expanded my social and academic horizons. My vision about many aspects in life has changed following my studies here" (FG2, FG4, FG5).*

Some future teachers claimed that they regret learning in an Arab college, because they lost the opportunity to be exposed to another culture, learn and grow stronger in Hebrew and English:

*"I regret that I'm learning here, and I was hoping to study elsewhere because of the Hebrew language and familiarity with the other", "There are many benefits but also disadvantages as the matter of the Hebrew language which does not improve and even becomes weaker because we do not use it, and the lack of mixture with other cultures, ... (FG7, FG9).*

In both learning contexts future teachers had expectations from me to transfer their voices to those responsible, and their need for attentive figures and support following the obstacles, challenges, concerns and pressures they experienced during their studies:

*"We hope you can convey our opinions on the college and make sure it will be received differently by those responsible, we've got tired with the lecturers requests and demands", "I feel this conversation group helped me a lot", " I feel relieved" (FG2, FG6, FG9).*

When future teachers in both learning contexts were asked what can be done by the college in order to help them, they indicated their will to be treated as independent learners and adult learners:

*"When they leave us and let us feel that we are older students and that we finished school stage and we're in a different stage now ... we are responsible for ourselves ... when they give us the confidence that we have responsibility and freedom ... then they will see our change ... and we will feel better" (FG2).*

Another student concluded:

*"Our motivation is related to how we are being treated, and how they give us respect rather than educational level and amount of educational materials" (FG2).*

### **Summary of the FGs results**

Compared to the possibility of social desirability in the quantitative part of the study (mentioned earlier in subchapter 3.1.), in the qualitative part future teachers expressed their perceptions and experiences freely, openly and willingly. Hence, there seems to be a gap between what is observed in the field and in the focus groups, and what future teachers try to show through questionnaires' reporting. One way to avoid such possible bias in future research is to include a measure of social desirability questionnaire [139].

Mostly all future teachers were motivated to take part in FGs, and had a strong desire to share their experiences. They described the new reality in higher education as a reality which is difficult to adapt to. They described facing many academic challenges, and dealing with an ongoing struggle for survival to the new place pedagogically, culturally, and psychosocially.

It seems that Arab future teachers in mixed colleges are more stressed than those in Arab colleges and also reported having lower feelings of autonomy. In the qualitative results common and differentiated themes existed in both learning contexts. Common factors such as a feeling of

stress existed in both learning contexts, but affected more the learning motivation in mixed colleges. Overall, in the qualitative results Arab future teachers, in both learning contexts, reported similar choices, expectations, stress, challenges and need for support. However, the later needs were more prominent among future teachers in mixed colleges, this explains the higher means of the predictors and outcome variables. Arab future teachers in mixed colleges seemed to pay the price of increased feelings of pressure and lower feelings of autonomy.

Future teachers' motivation in both learning contexts is related to several factors. Further research should test the learning climate in order to test the environmental pressure future teachers shared as a major theme which emerged from the FG interviews. This scale can be adapted from the Work Climate Scale [61]. Themes raised from the qualitative analysis highlights the findings and helps in explaining the quantitative part, and assisted in planning and implementing the intervention program. The rich picture received from the qualitative analysis of the materials helped in understanding the differences created by the learning contexts. In the conclusion of this chapter an expand of the above findings will be done, including the insights and conclusions from the intervention program.

### **3.3. Conceptualization of the psychosocial and pedagogical learning context in order to develop learning motivation of Arab future teachers**

**Background-** The experimental design of this study afforded the opportunity to examine baseline levels of motivation and to make inferences regarding how a sense of self-determination factors affects future teachers' autonomous motivation. The experimental part of the study constructed of intervention program, which was based on the quantitative and qualitative results, that aimed to analyze the psychosocial and pedagogical learning context, and its' effect on the future teachers' learning motivation. After analyzing the results of the baseline, and reaching conclusions, the planning of the intervention program began, based on SDT. Several motivational interventions implemented within educational contexts have been grounded in the macro theory of SDT [63;65] (see Appendix 8).

#### **The intervention program for enhancing autonomous motivation based on SDT consists of three phases**

##### **Conceptualization Phase**

The experimental dimension of the research implies the system of psychosocial and pedagogical conditions and means in developing learning motivation among Arab future teachers

in a mixed college in Israel. According to the SDT, environments which supports the students' needs improves their autonomous motivation, as well as their perceptions of their ability to overcome academic challenges [121]. Therefore, in light of the SDT, it has been suggested that a learning environment that supports students' needs for autonomy, competence, and relatedness will enhance students' autonomous learning motivation. The intervention focused on examining whether Arab future teachers would be able to productively function in an environment, where SDT components were implemented for challenging academic learning and enhancing autonomous learning motivation.

A great need to support the Arab future teachers was evident through the FG<sub>s</sub>. As proposed in SDT, autonomy support, feeling competence and relatedness could help future teachers' feeling of well-being, and enhance their autonomous motivation. The group dynamics helped them feel relieved, in this sense, the group interview created a psychotherapeutic effect [90]. Therefore, the intervention program was designed as a workshop meetings, aiming to provide the future teachers with the three PN which was proved in the quantitative part of the research, to be a positive predictors of autonomous motivation also for Arab future teachers.

This intervention program is based on SDT as the theoretical basis for this research because it is the only empirically derived theory of motivation which posits that perceived autonomy is essential for maintained behavior change, and because there are validated psychometric instruments for each construct in the theory [202]. Many lecturers and pedagogical instructors are frustrated by their future teachers being often not motivated to learn. Thus, an intervention that could extensively improve the percentage of future teachers able to effectively change behaviors of low motivation would represent a significant contribution to their motivation and achievements.

The intervention program aimed to clarify the active components of autonomy, competence, and relatedness support, the types of teacher training and support that facilitate effective change. Given this, verification based on SDT suggests that lecturers and instructors can enhance their efficacy through support of future teachers' PN for autonomy [85], competence, and relatedness. Several researches tested the efficacy of SDT-framed interventions for issues as diverse as tobacco dependence, diet, physical activity, dental care and in educational sittings, for example see [40; 53; 201; 202]. This intervention program applies whether this theoretical basis of SDT intervention is effective among this specific population.

## **Implementation Phase**

### **Steps in the implementation of the intervention program:**

**Step one- Choosing the intervention groups:** The intervention group included a treatment group (22 future teachers), and control group (30 future teachers) from second year. The intervention program was implemented in one of the mixed colleges, since it was the only college that was accessible for an intervention. Therefore, it is very important to clarify that it cannot be known if the intervention program can also affect other colleges similarly. Thus, other colleges cannot be taken as control groups. Post-test was examined based on controlling the baseline (pre-test).

An approval was received from the Head of Special Education Department for implementing the intervention program. Then, Participants provided written informed consent (see Appendix 7). They were informed that participation is voluntary, and would not affect their grades in the courses, and involved filling a questionnaire at the end of the intervention. They were also told that their responses would be kept completely anonymous, and that the lecturers and the head of the department would not have access to them. But rather lessons from the results of the intervention program would be taken in consideration in order to improve the program in the Department of Special Education.

The present intervention aimed to evaluate whether an SDT based intervention was effective in changing participants' motivation to become more autonomous within a college context. The intervention program started at March 2014 and lasted till June 2014, meetings were held in college. This short intervention comprised of 10 meetings, I met with the participants weekly for about 90 minutes per meeting (except for the weeks of the holidays). Meetings were educational and experiential in a workshop form, and besides the collective meetings with the 22 participants, a small group meetings and individual meetings were held (for the purpose detailed below) (see also Appendix 8).

**Step two- Selection of psychosocial and pedagogical conditions and means based on SDT:** As an experimental approach to enhance Arab future teachers' learning motivation, a workshops based on SDT was formed, aiming to facilitate their involvement and dynamic learning in Special Education courses by providing collective, small groups, and individual mentoring relationships with them. I designed the course in the form of workshops, and it differed from typical lessons in that it aimed to facilitate future teachers' involvement rather than just learning the course materials. Participants attended intensive study workshops that aimed to provide opportunities for autonomy support, social support, social belonging, and relatedness. To accomplish this aim, the meetings were conducted with a student-centered approach, facilitated

group problem solving, peer support, active engagement with the group dynamics, and addressing individual differences. Participants were involved in determining the goals and work plan, they were responsible for supervising the progress and self-evaluation processes carried out with my help.

The intervention program for enhancing autonomous learning motivation is schematically represented below (see Fig. 3.16.), and further detailed in this implementation phase. The intervention has a scientific based **principles**:

- Active methods based on SDT;
- Consideration of the psychosocial and pedagogical environment of the college;
- Consideration of individual differences in participants (in the individual meetings);
- Training instructors and lecturers to implement the experimental conditions and means.

These principles are in the basis of the psychosocial and pedagogical conditions and means:

**Psychosocial conditions and means-** autonomy-supportive learning climates:

- Autonomy support, and students' perception of staff and lecturers' autonomy support intervention;
- Enhancing relatedness;
- Enhancing competence.

**Pedagogical conditions and means:**

- Student- centered approach; Interactive learning methods; student participation in the learning process: open questions, problem-solving etc.;
- Implementing a supportive teaching style;
- Students' personal responsibility;
- Choice; Relevance; Attention.

This system of psychosocial and pedagogical conditions and means for the development of learning motivation will contribute for the enhancement of autonomous learning motivation, well-being, satisfaction, and positive coping with academic demands.

Note that the process in Fig. 3.16. is bidirectional, meaning that there is a feedback process in which the psychosocial and pedagogical conditions and means affect the principles and there implementation. This might lead to reevaluation of the defined principles.

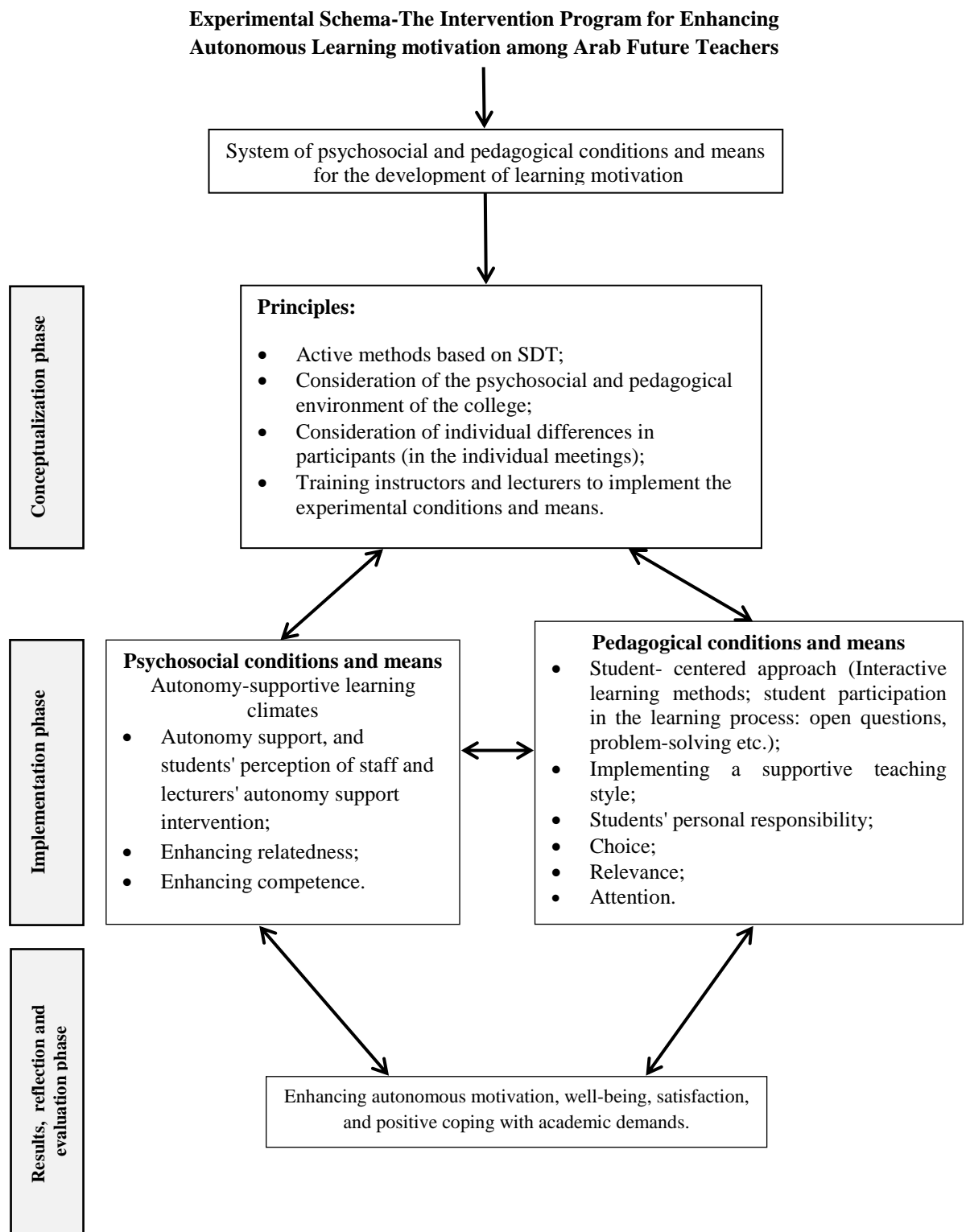


Fig. 3.16. Experimental schema of the intervention program



The future teachers' autonomous learning motivation, well-being, satisfaction, and positive coping with academic demands are affected by the above dimensions. Future teachers' experiences of autonomy, competence, and relatedness are affected by the psychosocial conditions and means (autonomy-supportive learning climates), and by pedagogical conditions and means that were implemented. Successively, when future teachers feel their PN are being supported this has been associated with more self-determination, greater personal well-being, less stress, more satisfaction from learning, better learning-related outcomes, such as persistence, active participation in class, submitting work and assignments on time, positive coping and dealing with academic pressures. Studies confirm that teachers' practices and the educational settings that satisfy these PN increase students' motivation, achievement, and well-being [95; 96; 121]. In accordance with the results of the studies above, applying the principles of SDT to the college classroom setting can help lecturers provide future teachers' choices that are motivating.

### **The Pathway for Enhancing Autonomous Motivation**

#### **Active methods based on SDT**

Fulfilling competence, relatedness, and autonomy needs is the foundation of autonomous learning motivation [65]. Therefore, the intervention suggests six paths of change that help imbed the fulfilling of core PN into the learning climate, based on the tenants of SDT:

##### *1. Ask open questions and invite problem-solving participation*

Building autonomous motivation requires supportive dialogue. Supportive dialogue starts with open questions that call for exploration of a central problem. Some lecturers are more comfortable with interactive styles that prevent, rather than create, supportive dialogues. In conversational focus that are "premature" lecturer usually sets the conversational agenda. Confrontations, which often includes labeling and blaming, are likely to be followed by either quiet offended agreement or angry denials. Open questions invite exploration of student's perception of a problem. In contrast, closed questions place the lecturer in the expert role and imply the need for passive compliance from students. Open questions raise problems for consideration without implying a preferred lecturer solution [184].

##### *2. Actively listen and acknowledge students' perspectives*

Open questions are best followed by active listening that includes explicit acknowledgement of the students' perceptions of a problem. One important active listening method is reflective listening, which is mirroring the emotional content of a message. Reflective listening requires careful attention and an empathetic personal style. Practically, reflective listening involves briefly reaffirming the emotional content of a message back to the speaker

(student). Summarizing, which is another active listening technique comprises of briefly restating a speaker's (student) common themes and ideas grouped across a conversation. Such summaries may begin with statements that offer clarification of misinterpretations or misunderstandings. Affirmation is also critical to active listening which are sincere expressions of appreciations or that may include acknowledging difficulties already faced, see Miller and Rollnick, 2002 In [184].

### *3. Offer choices within structure including the clarification of responsibilities*

SDT-based interventions are rooted in individual choice and responsibility. Offering possible actions to address a problem rationally follows from a dialogue based in open questions and active listening. Clarifying responsibilities and contributions is also integral to a SDT approach. One important methods of acknowledging the students' perspective and clarifying their responsibilities is for example, by providing a meaningful rationale for an uninteresting task and acknowledging the students' feelings of dislike or disinterest in it. It is important to use language that emphasizes personal choice rather than external control [184].

### *4. Provide honest positive feedback*

Praise can de-motivate by controlling or motivate by supporting competence and autonomy. Effective praise is honest and specific; it acknowledges unique and unusual contributions. Praise that acknowledges mere compliance tends to feel controlling; in contrast, praise that acknowledges proactive engagement and initiative supports people's competence and autonomy. Provide honest positive feedback that acknowledges initiative and factual, non-judgmental feedback about problems [184].

### *5. Reduce forced controls such as rewards and comparisons with others students*

SDT approach strive for minimizing the salience of compensation and benefits as a motivational strategy. Lecturers who teach in SDT based principles are less concerned with the carrot and stick of extrinsic rewards, and more concerned with learning productivity, well-being, and personal satisfaction. Certainly, poor compensation and benefits levels can interfere with students' ability to achieve autonomy, competence, and relatedness [184].

### *6. Develop abilities and share knowledge to enhance competence and autonomy*

Students may value learning opportunities and advancements mainly as desired external rewards, or chances for increasing autonomy, learning new skills (i.e., competence), and cooperating with peers. The earlier is related with controlled motivation and the latter with autonomous motivation. Differing reasons for wanting these outcomes influences their effect on performance. Students feel controlled when lecturers use learning opportunities as external rewards. This creates controlled rather than autonomous motivation. Therefore, one would not

expect enhanced engagement and performance as a result of using educational opportunities as rewards to compete for. Proposing learning opportunities as a means to personal and professional development will create positive motivational effects. In addition, increasing awareness of the possibilities for learning and advancement opportunities to help meet essential PN will create similar beneficial effects. But it is important that proposing such opportunities support autonomy, so using these opportunities to influence students will fail [184].

**SDT constructs addressed by the intervention components:**

- Knowing the students personally and professionally;
- Balancing between instructing and training the students, and inspiring them to find their own interests and their own choice;
- Working on coping, improving and overcoming their difficulties; and assisting them in strengthening their feeling of competence and self-efficacy;
- Providing the students with quality informational honest feedback, and evaluation on their performance, starting with their positive sides;
- Helping them engage in group discussions.

**Psychosocial conditions and means implemented in the intervention meetings** (see Fig. 3.16.):

- *Autonomy support:* Autonomy support and providing choices in the learning process increase students' autonomous motivation (letting them pick their assignment/ paper partners or select from alternate assignments) [65].
- *Balancing the challenge and increasing competence:* Students' competence can be supported by lecturers' presenting learning activities that are optimally challenging, thus letting students test and expand their academic abilities. Further, it is important that teachers offer students with the right tools and feedback to promote success and feelings of efficiency and ability [135]. Choose tasks that are not easy (promotes boredom) but not difficult (unachievable lower competence) [62; 65; 69 ; 135; 157].
- *Promoting a sense of belonging- relatedness:* Students have a fundamental need to feel connected or related to other students. Instructor or lecturer that shows openness and warmth, enthusiastic, friendly and helpful, and is organized and prepared for class, and encourages student active participation in class can promote students' sense of belonging [65; 69; 135]. Those students are more likely to display identified and integrated regulation for the difficult tasks involved in learning, while those who feel not attached or

rejected by lecturers are more likely to move away from internalization and thus respond only to external contingencies and controls [135].

**Pedagogical conditions and means implemented in the intervention meetings** (see Fig. 3.16.):

- *Student-centered approach*: The intervention program has a student-centered approach that aimed to develop and implement educational practices which gives students many opportunities for self-direction and self-regulation which relate to students' self-identified intrinsic needs. Such a student-centered approach seems not only valuable for promoting well-being but is also identified by students as reliable with 'true learning' [154; 158]. Classes with an emphasis on lecture are effective for delivering large volumes of content in limited time but provide few opportunities for student-instructor interaction. While this teaching method may appeal to a few highly motivated students, it can often leave much of the class disengaged from the content. Such classes are often characterized by instructors who take the first shout-out answers to questions (often from the same few students) or answer their own questions too quickly. In contrast, more student-centered classes provide adequate time during activities for students to think about concepts, receive feedback, participate in discussions that may guide the direction of the lesson. Some activities may allow students freedom to engage in their own learning (e.g., online search for relevant information) and/or may involve the students using the instructor as a resource to provide information as needed.

I also assured students' satisfaction during the course by: (1) providing informative, motivating and helpful feedback during the workshops and the different activities; (2) giving personal attention to students during the lectures.

- *Implementing a supportive teaching style*: I mainly enhanced students' feeling of confidence and support through their work on the projects throughout the whole course by: (1) stating clearly the learning goals and requirements in these projects and the needed amount of effort and ability to succeed. I also stated the criteria for evaluating their performance; (2) developed a plan of work, where at each milestone they should submit the required work up till that point, and subsequently I provided them with formative feedback, where I can praise them when they perform well, and support them and encourage them to perform better when their performance is not satisfying. listening and encouraging, being responsive and approachable to student questions and dilemmas, showing empathy for students [66].

- *Students' personal responsibility*: Enhancing autonomous motivation through the development of personal responsibility in the sense of taking responsibility for learning. The intervention was built based on the principles of SDT [154] that when the individual feels that he controls his behavior, is open to learning and challenges and develop skills of initiative and motivation. By emphasizing the strengthening of the student, and equipping him with tools for dealing with learning at college. Interactions with students are planned to promote autonomous motivation for change, and to support change for those who are already making the effort.
- *Choice*: The program aimed also for giving the students choice in their learning (a choice of learning opportunities, but not total freedom). Choice can be motivating when the options meet the students' need for autonomy, competence, and relatedness. For example, choice is motivating when the options are relevant to the students' interests and goals (autonomy support), are not too numerous or complex (competence support), and are congruent with the values of the students' culture (relatedness support) [135; 154]. Students' autonomy can be supported by teachers' reducing any sense of compulsion and force in the classroom, as well as by maximizing students' perceptions of having a choice and voice in the academic activities in which they are involved [135].
- *Relevance*: To increase students' feeling of the relevance of the material they learn, the following activities were included in the course: (1) applying the main concepts and knowledge gained in the lectures to working on their projects; (2) display true stories and real practical experiences gained from the real practical work with special education students; (3) I created learning activities that are based on topics that are relevant to students' lives (teaching with real stories and incidents from the field, videos). If students can identify with role models they may be more likely to see the relevance in the subject matter (invite guest speakers from the field, graduated or fellow students) [66].
- *Attention*: To get and sustain the students' attention during the lecture I varied the format of the lecture by: (1) having short breaks of 5-10 minutes where students engage in writing exercises related to the material; (2) when relevant I used videos on the topic of the lecture; (3) I asked students to work in groups to discuss the dilemma they faced at practical work; (4) I arranged a visit to the resource center in college and a tour to school for students with special needs (outside the days set for the workshops).

**Teaching/ learning activities that were integrated in the workshops:** The aim was to increase students' attention, interest, learning motivation, and to engage with the content of the course:

1. Lectures- teaching the course content, materials and information, besides managing the interactive learning methods and activities in class, and coordinating the workshops.
2. Types of interactive media were used during workshops such as short YouTube videos (under 10 minutes), presentations, animation, and more.
3. The concepts learned was applied in class by designing didactic activities, tools, games, educational materials, and illustration cards for their practical work field (practicum). During these activities I could reach and assist the future teachers in small groups, in determining good and efficient materials, and to give guidance. When an interesting idea came from one group I could get the attention of the other groups and have a rich and active discussion.
4. Small exercises/ case studies during the lecture. future teachers shared real educational situations, they suggested ideas and solutions of practical work dilemmas, and situations that they face at practicum by my assessment and guidance. These real situations were very engaging and efficient to them. Role-playing and simulations of some of these situations and incidents that can occur in the practicum were done in class.
5. Discussing presented examples of different didactic activities, tools, games, and educational materials. I encouraged them to share drafts or papers, and to get feedback from me and from their peers.
6. Group discussions/ peer instruction- future teachers were asked to read materials in advance and present it during the lecture. To help trigger discussions I also included questions that I asked to think and talk about during the next workshop.
7. Discussions and debates during the workshops. Each small group (2-3 future teachers) presented their progress and the theme/ subject they chose for their assignment and this was discussed then in the groups.
8. Future teachers wrote their final assignment based on clear and defined criteria. Their difficult and complex assignment was divided into small parts in order to be more easy to accomplish and complete as separate assignments. Each small assignment were handed to me for feedback in order to continue working on it.
9. Each small group presented a short power point presentation of a chosen part of the assignment in class (about 15 minutes). Then they had time to discuss it in class, and get feedback from me and from their peers.

**Individual intervention meetings:** Individual meetings were held with each pre-service teacher twice during the intervention program, and if needed more meetings were added. I was approachable to them also by E-mail and by a group formed in WhatsApp program. First meeting with each pre-service teacher individually aimed for matching expectations from both sides, discussing possible developing points, and setting goals. Second meeting aimed to provide formative feedback and get an impression of the future teachers' progress. These meetings were goal directed and self-regulated for autonomous behavior. Decisions were based on the future teachers' interests and preferences, they were responsible for setting goals, monitoring and evaluation processes for progress (see Appendix 8).

**Small- group mentoring:** (2-3 future teachers in each group) were held taking into account the need of each group, and if needed, more meetings were added (see Appendix 8). These meetings aimed for:

1. Discussing topic ideas for the assignments (depending on the specific course requirements), providing materials to the future teachers or directions for looking for material; Identifying together with the future teachers a common topic of interest and importance;
2. Setting goals, developing the concept, and establishing a timetable;
3. Encouraging self-determined behavior for investigating and searching of services which they need from college;
4. Share progress in the assignments, presenting and discussing them in class and receiving constructive feedback from peers;

**Step three - training instructors and lecturers:** Training instructors and lecturers to implement these experimental conditions and means, in order to get to a more large sample in the research. In this case the lecturer should have a sufficiently high level of sociability, democratic style of communication, to facilitate the process of communication between all future teachers and act as an independent participant training. It is important to clarify that unfortunately, there were no possibility for training the academic staff, but it is highly recommended in further implementation of the intervention program. When there is a possibility for training instructors and lecturers it is very essential to benefit from collaborating with colleagues, and by learning from each other experiences, and from future teachers' reflections.

### **Results, Reflection and Evaluation Phase**

**Results of the intervention program:** after the implementation of the intervention program, the post-questionnaire were handed at the last meeting to the future teachers (treatment group). At the same week the post-questionnaire were handed also for the control group in order

to collect data. The post-questionnaire included the part that is related directly to autonomous and controlled motivation (part F, see appendix 2).

**Main Intervention objective:** developing intervention program and examining if there is an effect of the in intervention on future teachers' motivation.

**Intervention Questions**

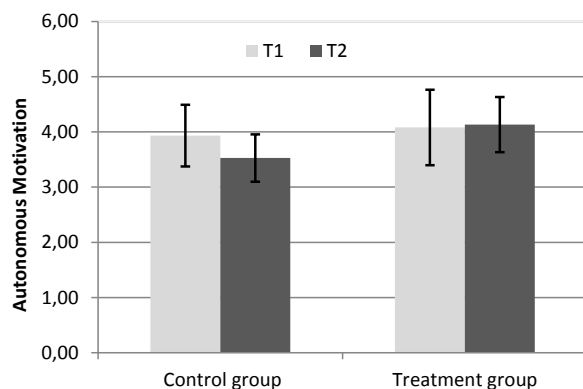
1. Do the two groups (treatment and control) differ at T1 and T2, i.e. is there an Intervention effect?
2. Do the two groups (treatment and control) differ in their responses overtime, i.e. is there a Time\*Intervention interaction?

**Descriptive Statistical Results**

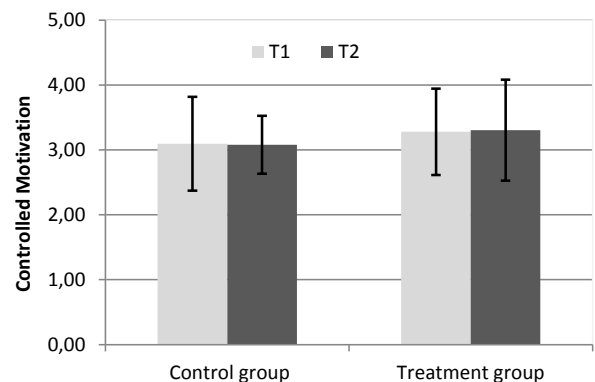
Table 3.23. below presents the descriptive statistics of the two groups (treatment and control) for both types of motivation and at two measurement times, baseline (T1) and post (T2). Fig.3.17. presents the average and standard deviation of the autonomous and controlled motivation for both groups.

**Table 3.23. Descriptive statistics of the treatment and control groups for autonomous and controlled motivation in the baseline (T1) & post (T2)**

	Intervention	N	Mean	Std. Deviation	Std. Error Mean
Autonomous (T1)	Control group	30	3.9333	.55915	.10209
	Treatment group	22	4.0818	.68357	.14574
Controlled (T1)	Control group	30	3.0952	.72294	.13199
	Treatment group	22	3.2792	.66493	.14176
Autonomous (T2)	Control group	30	3.5267	.42825	.07819
	Treatment group	22	4.1318	.49894	.10637
Controlled (T2)	Control group	30	3.0803	.44616	.08146
	Treatment group	22	3.3050	.77712	.16568



(a)



(b)

Fig. 3.17. Descriptive statistics for (a) autonomous motivation; (b) controlled motivation in the baseline (T1) & post (T2).



In order to examine the particular impact of the intervention program on the future teachers' motivation in the two groups (treatment and control), it is essential at first to make sure that the future teachers in the two groups had a similar initial level of motivation before the implementation of the intervention (i.e. at the baseline T1). To test for this an independent t-tests were conducted. The results as shown in Table 3.24. show that there are no significant differences in the means between the two groups at time T1 for the autonomous (t-test=-0.861; p=0.393) and controlled motivation (t-test=-0.937.; p=0.353). While in time T2 there is a significant difference between the two groups in the autonomous motivation (t-test=-4.694.; p<.0001). Thus, the answer for the first question listed above is that the two groups (treatment and control) do not differ at time T1 but they do differ at time T2 with respect to the autonomous motivation, therefore there is a significant intervention effect on this type of motivation.

**Table 3.24. Independent samples test for autonomous and controlled motivation in the baseline (T1) & post (T2).**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Autonomous (T1)	Equal variances assumed	3.563	.065	-.861	50	.393	-.14848	.17248	-.49492	.19795
	Equal variances not assumed			-.834	39.736	.409	-.14848	.17794	-.50818	.21121
Controlled (T1)	Equal variances assumed	.453	.504	-.937	50	.353	-.18398	.19625	-.57816	.21019
	Equal variances not assumed			-.950	47.397	.347	-.18398	.19370	-.57356	.20560
Autonomous (T2)	Equal variances assumed	.413	.523	-4.694	50	.000	-.60515	.12891	-.86408	-.34622
	Equal variances not assumed			-4.584	41.128	.000	-.60515	.13202	-.87174	-.33856
Controlled (T2)	Equal variances assumed	3.980	.052	-1.317	50	.194	-.22467	.17053	-.56719	.11785
	Equal variances not assumed			-1.217	31.065	.233	-.22467	.18462	-.60118	.15184

In other words, the results support the assumption that any differences that will be found in the motivation at time T2 is most probably arouse as a result of the intervention program. In order to further investigate this, a repeated measures MANOVA was conducted.

**Intervention results: a two-way mixed design (MANOVA):**

As stated in this study questionnaires were distributed in two different time points by a margin of 4 months, so a two-time points data exists: baseline and posttest. For each subject in the treatment group there was an attempt to find a subject that is as similar as possible to the subject in the treatment group, and then there were assigned to the control group. The matching was done on matters relevant for the evaluation at hand.

Repeated measures MANOVA test was conducted to test intervention effects on both types of motivation: autonomous and controlled (dependent variables). The results in Table 3.3. show that there is a significant impact of the intervention (treatment and control) on the autonomous motivation,  $F(1, 50) = 9.623$ ,  $p=.003$ , but not on the controlled motivation  $F(1, 50) = 1.982$ ,  $p=.165$ . Fig.3.18. presents the estimated marginal means of autonomous and controlled motivation for the control and treatment groups.

**Table 3.25. Tests of between-subjects effects (i.e. between control group and treatment group)**

Source	Measure	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power <sup>a</sup>
Intercept	Autonomous	1559.014	1	1559.014	4162.043	.000	.988	4162.043	1.000
	Controlled	1033.232	1	1033.232	1932.775	.000	.975	1932.775	1.000
Intervention	Autonomous	3.604	1	3.604	9.623	.003	.161	9.623	.860
	Controlled	1.060	1	1.060	1.982	.165	.038	1.982	.282
Error	Autonomous	18.729	50	.375					
	Controlled	26.729	50	.535					

a. Computed using alpha = .05

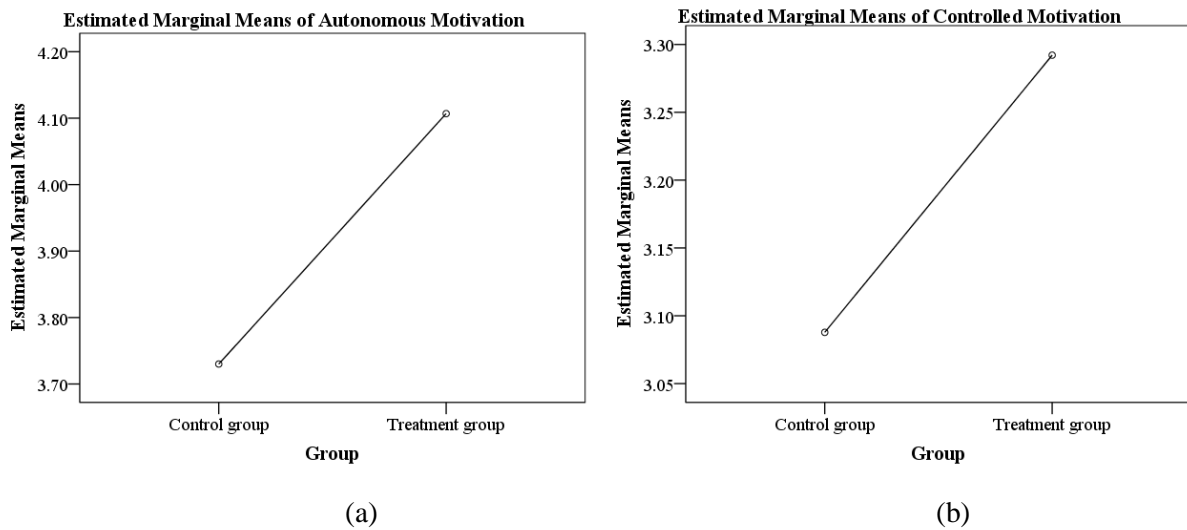


Fig. 3.18. Estimated marginal means of (a) autonomous and; (b) controlled motivation for the control and treatment groups

Tests of within subject contrasts presented in Table 3.26. showed that there is no significant effect between the two time measurements in both types of motivation, autonomous ( $F(1, 50) = 3.774$ ,  $p=.058$ ) and controlled ( $F(1, 50) = 0.002$ ,  $p=.962$ ), see Fig. 3.19. below. The interaction between time and intervention was found to have a significant impact on the autonomous motivation ( $F(1, 50) = 6.186$ ,  $p=.016$ ), but not on the controlled motivation ( $F(1, 50) = 0.032$ ,  $p=.858$ ), see also Fig. 3.20. below.

**Table 3.26. Tests of within-subjects contrasts**

Source	Measure	Time	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power <sup>a</sup>
Time	Autonomous	Linear	.807	1	.807	3.774	.058	.070	3.774	.478
	Controlled	Linear	.001	1	.001	.002	.962	.000	.002	.050
Time * Intervention	Autonomous	Linear	1.323	1	1.323	6.186	.016	.110	6.186	.684
	Controlled	Linear	.011	1	.011	.032	.858	.001	.032	.054
Error(Time)	Autonomous	Linear	10.697	50	.214					
	Controlled	Linear	16.167	50	.323					

a. Computed using alpha = .05

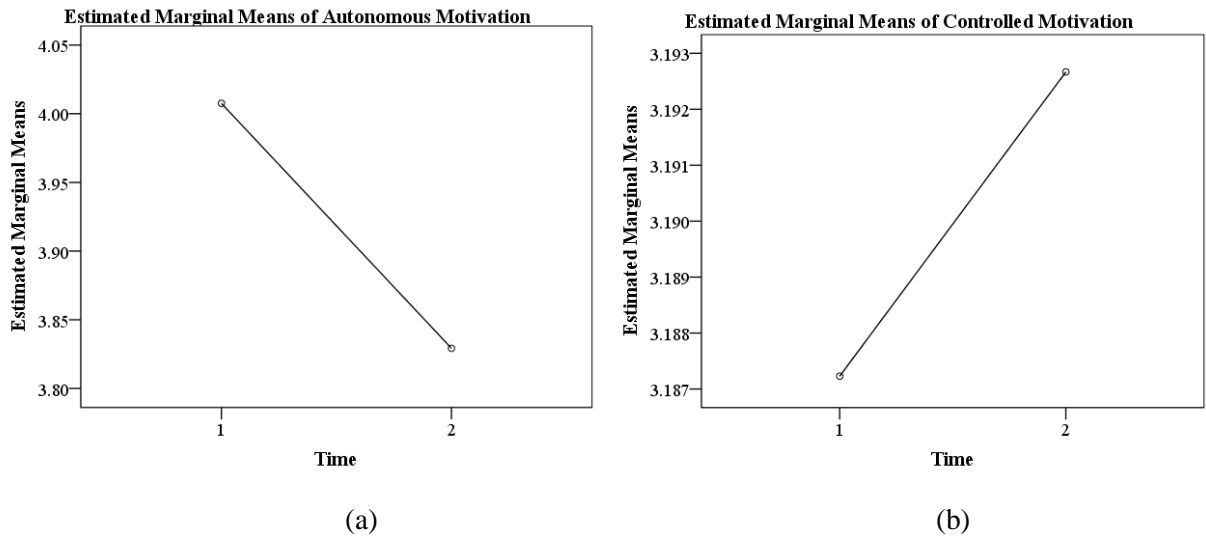


Fig. 3.19. Estimated marginal means of (a) autonomous and; (b) controlled motivation for baseline (T1) & post (T2).

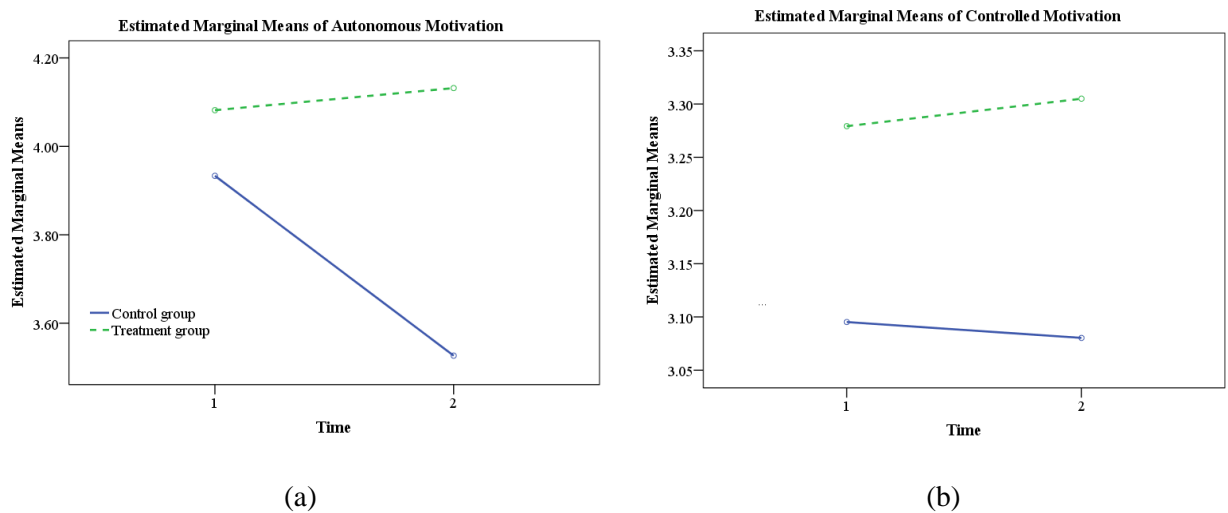


Fig. 3.20. Estimated marginal means of (a) autonomous and; (b) controlled motivation in the baseline (T1) & post (T2) for the control group and the treatment group.

At time T1 the autonomous motivation in both groups (treatment and controlled) were very close without significant difference as was shown in the t-test above, however at time T2, the autonomous motivation for the control group was slightly decreased, while for the treatment group was slightly increased. These results indicate that there was a significant impact of the intervention program in the treatment group for the autonomous motivation. The intervention program had no significant impact on the controlled motivation, this finding should be further investigated in further research.

**Reflection of the treatment group participants:** Individual and group reflections on the process were done in the end of each workshop, "where I progressed, where I want to go, and what is my next step". Furthermore, future teachers' self-reflection were done also after data collection (post questionnaires) in the last meeting.

The future teachers expressed their positive sense of being partners for setting goals, supervision and evaluation of their progress. They expressed a high sense of competence, and were more motivated to perform during lessons, and had the ability to conduct reflective dialogue about their situation. As one future teacher said:

*"I feel more competent, I believe more in my abilities to achieve high performances in classes..., the workshops gave me strategies and different methods to deal with the challenges"; "The feedback I received helped me to know exactly what the pluses and what I need to improve, I feel that these talks really helps me work on those specific sides, and see good results", "The opportunities given to us to express our dilemmas and feelings, discuss incidents from our practical work field, and group sharing made me feel supported and able to overcome frustrating situations and failures. I feel more confident now to express myself in class".*

Other students described the positive sense of relatedness to their peers:

*"It is now more clear to me how to work and prepare for projects and assignments, and the group work in the workshops helped me feel more motivated to learn with my peers in class", "the support that I got gave me energy and push for more and more success, it was very important to me to feel that I'm worth, and that I can contribute to the discussions in class".*

Another future teachers described in a honest and moving way her sense of belonging and relatedness to the group, and her increased feeling of competence:

*"I am nowadays much more relieved..., I was very amazed to discover that most students feel the same stress at college...I thought that I suffer alone from the difficulties, and I was ashamed to share those feelings...the workshops helped me to discover my abilities, to gain more faith in myself,... and I think that the most important and my biggest profit from those meetings is the new friendships I gained...".*

Students described the positive effect of autonomy support on their motivation:

*"I knew for whom to turn for support and encouragement, and the feeling that I can share in decision making, having the ability and opportunity to choose the topic assignment, and the partners, including the positive communication, the respect and choice given to me made me feel a sense of a drive".*

### **Summary and evaluation of the intervention program**

This intervention program points out that the elaborated scheme which has been experimentally examined determines the level and type of students' learning motivation. The psychosocial and pedagogical conditions and means enhanced the autonomous motivation of the treatment group. The intervention program will undergo another circle of conceptualization phase taking into consideration the psychosocial and pedagogical environment of each specific faculty and college, and individual differences of the participants, and training instructors and lecturers. Followed by implementation and reflection for enhancing autonomous motivation in order to have motivated teachers in the domain of Special Education and other teaching domains.

The intervention program can be applied in the educational process in Special Education Departments in teacher training colleges, and adapted to other departments and colleges. Cultural differences may also influence the implementation of the intervention program, therefore adaptation of the autonomy supportive teaching style, and the psychosocial and pedagogical conditions and means is needed.

Lecturers and among them especially instructors were found to have a highly effective influence on future teachers' motivation. Lecturers can foster autonomous motivation by sharing enthusiasm for the subject, and making the learning materials more appealing to the future teachers. Showing patience, persistence and understanding with future teachers' various difficulties, which can moderate and reduce the future teachers' resistance in dealing with their own difficulties. Asking interesting questions and facilitating interactive discussions, learning future teachers' names and about their lives, by developing a rapport, one can encourage a sense of social integration, belonging and relatedness. Future teachers' autonomy should be taken into consideration when choosing strategies through which future teachers are motivated for learning and achievement [114; 115; 116].

Recently, due to the intervention program, this topic was raised and discussed among college officials, and signs of change are beginning to appear. Issues and ideas aroused such as mentoring project for future teachers who will be accompanied by college students' advisor, social academic counseling, scholarships recruitment assistance to Arab future teachers, including academic difficulties such as handling academic writing, difficulties in Hebrew and

English. In addition to handling the problem of lack of places for training period with the responsible officials in the Ministry of Education.

As a whole, the intervention results show that by promoting the three PN and self-determination among Arab future teachers, instructors and lecturers may not see clear, immediate improvements in performance. Instead, we might find that future teachers are starting to show greater interest in the courses, and in the materials, more active participation, and greater persistence in the face of difficulty they face at college and at practical field work. These beginnings of positive change are worth assessment and recognition, in the way to achieve more autonomous and continues high quality motivation, which will lead to well-being, satisfaction and better achievements.

The analysis revealed improvement in future teachers' performances, and a gradual transition from a dependent style to a more independent and self-regulated style, such as: active sharing and planning their development process; self-monitoring and evaluation process; raise in motivation; choice and use of divers learning environments; improvement of basic learning skills; independent implementation of educational tasks; improvement of performance and engagement in the classroom; promotion of self-expression in writing; promotion of social and emotional well-being of the future teachers.

**This overall study has a number of limitations that needs to be acknowledged:**

1. In this study, future teachers were monitored for only a short time. Further research is needed to assess the long-term effects of theory interventions, for example, is the change in future teachers' motivation permanent or do they retreat to their initial motivation levels?. Moreover, the study examined future teachers in two points of time. The findings received a partial snapshot described. Long-term testing throughout the whole duration of studies would provide more information and better reflect reality. The intervention program was limited in time.
2. The findings are based on small effect sizes, so it is important to neither overestimate nor underestimate the practical significance of these findings. Moreover, it is often overlooked that small effect sizes can have a major impact on outcomes over time.
3. The study pre-results examined future teachers only from four colleges, and despite its size and diversity, the testing of other colleges would allow a more comprehensive and thorough analysis. Furthermore, the intervention program was implemented in one of the mixed colleges only, since it was the only college that was accessible for an intervention. Therefore, it is very important to clarify that it cannot be known if the intervention program can also affect other colleges similarly. Educational contexts differ in their

relative support for these three PN. Therefore, the improvement that may be attributed to the intervention program for this particular treatment group, in this specific learning context cannot be generalized for all colleges of education. In order to detect the effect of the intervention program on future teachers' motivation in other mixed colleges and in Arab colleges, and to insure its validity there is a need for an intervention samples from the later colleges.

4. A future intervention should aim to have more participants from both college types in order to test the validity and reliability of the intervention program in both learning contexts. To accomplish this aim, small group instructors could be trained to be student-centered and to facilitate group problem solving, peer support, and active engagement with the learning materials. The goal is for all of the group leaders to be highly student-centered, although there is likely to be considerable variability in the extent to which they are successful in creating student-centered learning climates.
5. The participants were selected through convenience sampling from the Departments of Special Education, therefore they do not represent future teachers in other departments.
6. For an ideal experimental set-up the observations should be a random sample from the Arab future teachers (generalizability). The observations should be randomly assigned to the treatment and control conditions. The latter guarantees that the only difference between treatment and control group is the effect of the intervention. This was not possible in this study, future research should aim for generalizability if possible.
7. Another methodological limitation is that findings were based on future teachers' self-reports on their motivation which could have introduced the problem of social desirability bias. Therefore, behavioral observation and individual meetings were done in order to avoid the potential for social desirability. In future research lecturers' reports and evaluation of the future teachers' grades, behavior and learning motivation can be included.
8. My position as an involved researcher in the domain may be a limitation in this study. However, the data presented were based on objective quantitative and qualitative data, which was recorded and documented.

### **3.4. Conclusions of the third chapter**

The comparative analysis of the initial level of motivation, the examination of predictor factors of autonomous and controlled motivation, and the analysis of the focus groups assisted

later in the conceptualization and validation of the Intervention Program For Enhancing Autonomous Learning Motivation.

A college education in general and Special Education in particular are not certainly the free choice or the appropriate life path for all Arab future teachers who participated in the current research. It is also not certainly true that all future teachers are capable of dealing with the teaching career and particularly children with special needs. The high percentage of educated Arabs choosing the education profession is caused by limited employment opportunities. Furthermore, there is a fragmentation of the fantasy that this academic institution will give a more positive experience than in the Arab schools they grew up in. However, they are confronted with a similar reality and experience, in which they are dominated by all kinds of people in college, and in the limited choice options available to them. Furthermore, once they are graduated they are faced by the reality of limited employment opportunities. These complexities decrease their motivation as teachers and the quality of their pedagogical work with children with special needs.

The results of the intervention program emphasize the impact of socializers, especially lecturers and instructors, providing psychosocial and pedagogical learning conditions that allows future teachers to satisfy their psychological needs for autonomy, relatedness and feeling of competence. Once lecturers fail to provide future teachers' needs, future teachers' self-regulation is likely to be more controlled, and their well-being is likely to be decreased. Therefore, the important role of teachers' educators as providers of support and facilitators to future teachers' autonomous self-regulation and psychological well-being seems quite apparent. Working on empowering future teachers, a change can be seen. Future teachers grow in an environment which is more controlled both at home and school. When they start their first year at college, they face many difficulties in being autonomous. Therefore, lecturers and instructors should provide them with adequate support and enhance their confidence in their ability to become autonomous.

Despite the limited social interactions between Arab and Jewish future teachers in mixed colleges, the readiness of Arab future teachers, from their perceptions (from focus groups ), to such relations is higher than the readiness of Jewish future teachers. It seems that further implementation of multicultural approach is requested, acceptance of "the others" by both sides, working on coexistence, building capacity to live together in colleges and develop more social interactions if possible. This result is in line with previous studies, and it gives evidence that further implementation should be done in this domain. Lecturers can apply a change in the



teaching methods in mixed classes for future teachers to have options for shared active and meaningful learning, which is supposed to increase future teachers' learning motivation.

Consistent with prior research, the findings of the present study highlight the potential importance of the need for psychological needs support across different learning contexts and settings, and specifically in the case of Arab future teachers. Such results add to a growing body of literature, which suggests that the need for autonomy, competence, and relatedness are cross-culturally significant needs common in various learning environments. Although there might be cultural and institutional differences on how the psychological needs are supported, fulfilled, and expressed, the importance of experiencing satisfaction of these needs seems to be essential for the improvement of future teachers' growth and well-being. An ideal education system would support both future teachers' choices and competences and work in the direction of inspiring a sense of belonging, autonomy and self-regulation. The intervention program, tested in the current study, has suggested ways in which a college could be "healthier", by providing more autonomy support, less pressure, and more frequent quality informative feedback. The results of the intervention program also increase the importance of attending to differences in the means through which the psychological needs can be supported in different learning contexts to promote autonomous learning motivation among future teachers in general, and among Arab future teachers in particular. Therefore, the suggested intervention program should be tested and adapted to each unique learning context before it is applied. The intervention program identified actions that lecturers and pedagogical instructors could implement in their daily teaching work to improve future teachers' self-determination. Independent of the context, these actions could be shifted to a wide-range of educational settings.

A number of questions and doubts are raised by the current study: the presence of the state of Israel in a national conflict is a very significant feature of the Israeli public systems, affecting the life of the Arab minority in everyday life and in higher education. Effects of this conflict on the education of the Arab population includes personal, psychosocial and pedagogical aspects. In light of this, the questions that are raised include: is it the role of mixed colleges to raise the issue of majority-minority relations, national conflict and its' impact on future teachers' motivation in college discourse?; Is it more beneficial to have Arab future teachers be taught by only Arab lecturers?; Is it more correct to allow future teachers to write assignments and be tested only in Arabic language? On the one hand, this will make things easier for them, but on the other hand, it will differentiate them, causing them to be outside the mainstream; Is it the role of the college to combine Arab and Jewish future teachers? Colleges reflect the reality in state, it

is actually the dilemma of living in Israel. Therefore, additional research will be necessary to explore these questions further.

In a complex and diverse reality as in Israel, teachers' educators, researchers and teachers have to deal with multiculturalism. The teacher training programs should aim to prepare students to be able to deal with a diverse society. Therefore, a reform is needed in the teacher education programs, both for Jewish and Arab future teachers; in order to suite the field requirements and promote multicultural education. The limited willingness among future teachers to acknowledge "the other" can indicate inadequate education in the school system. Multiculturalism should start at an early age, where the focus must be on accepting the different child, "the other" child.

A constructive dialogue in culture and between cultures is needed in order to confront multiple dilemmas. This dialogue has great potential that contributes and enriched from the diversity in cultures. This diverse complexity promotes tension in the educational setting, but on the other hand, it has the potential to change the reality and to bring the education to a better place.

We believe teachers' educators, should understand their own culture in a deeper way in order to be aware of and comprehend other cultures, and to be able to preserve the uniqueness of each culture, and nurture each other in a consistent dialogue. A constructive inter-cultural dialogue can improve the ability to overcome obstacles and challenges. I also believe, as an Arab teacher educator for minority future teachers that we should promote the discourse regarding the much needed improvement in the Arab programs and colleges for Arab future teachers. We should engage in a multicultural approach that meets the needs of future teachers, and provides them with suitable tools and techniques. We have to be able to nurture them with additional means and practical knowledge. Thus, it is important to preserve their willingness and motivation in order to be able to deal with this complex reality in the educational field. Accordingly, these future teachers can serve as agents of change in the Arab school system in general, and in the field of Special Education in particular.

The results of the current study do not support the argument of the comparative efficiency of Arab vs. mixed approaches to college education in terms of achieved levels of knowledge, competence and future success within the Special Education field. The research results should not be interpreted in terms of identifying one single college type as preferred compared to other types, but they should be approached as an examination for those parameters that could be used to improve both learning contexts.

## GENERAL CONCLUSION AND RECOMMENDATIONS

This research aimed to develop the educational theory and practice by providing a theoretical and methodological foundation of the psycho-social and pedagogical learning context influence on developing motivation among Arab future teachers. It focused on the development process of Arab future teachers' autonomous motivation who study at the Department of Special Education in two types of teacher training colleges: Arab and mixed colleges.

In the process of relating the research results to the aim and objectives of the research we elaborated the following **general conclusions**:

1. The analysis of the conceptual dimension of the learning context of Arab future teachers and the synthesis of the theoretical literature in this domain allowed us to point out the experiences and the necessities that the educational system in Israel copes with in the process of the initial training of Arab future teachers. This analysis was conducted in order to ensure and foster a generation of teachers and educators, who are able to deal well with the needs of the students and the educational system. Yet, based on the analysis, we noted that this main issue did not receive sufficient attention when addressing Arab future teachers. In other words, researchers in education, and policy makers do not pay sufficient attention to the exploration and determination of the unique psychosocial and pedagogical dimensions of the initial training of Arab future teachers which takes place in different learning contexts: Arab and mixed colleges.
2. The analysis of the theoretical framework for enhancing the learning motivation, the definitions of motivation and learning motivation, and the focus on SDT allowed us to clarify, identify, and elucidate the effects of specific components of SDT in learning motivation development. The findings showed that Arab future teachers go through different socialization process: academically, pedagogically, psychosocially and linguistically. Therefore, we marked out an obvious need for developing insights regarding the effect of the learning context dimensions on learning motivation of Arab students future teachers. The formation of learning motivation can play a crucial role and affect their professional and personal development, and has deep implications on their ability as future teachers of children with special needs.
3. The comparative analysis of the initial level of motivation pointed out that the means of both the autonomous and controlled motivation were found to be higher in Arab colleges. The examination of predictor factors of autonomous and controlled motivation assisted later in the conceptualization of the intervention program suggested to enhance the

autonomous motivation of Arab future teachers from mixed colleges depending on the psycho- social and pedagogical learning context.

4. The Intervention Program For Enhancing Autonomous Learning Motivation among Arab future teachers structured in the basis of the *psycho-social conditions and means*: autonomy-supportive learning climates; autonomy support and future teachers' perception of staff and lecturers' autonomy support intervention; enhancing relatedness; enhancing competence; and of the *pedagogical conditions and means*: student- centered approach; interactive learning methods; student participation in the learning process: open questions, problem-solving etc.; implementing a supportive teaching style; future teachers' personal responsibility (choice; relevance; attention) is functional, applicable and efficient for enhancing autonomous learning motivation and has a positive impact on increasing the efficiency of professional development of future teachers.
5. The experimental validation of the Intervention Program For Enhancing Autonomous Learning Motivation among Arab future teachers demonstrated: that the psycho-social and pedagogical conditions and means enhanced the autonomous motivation of the treatment group; the importance of providing psycho-social and pedagogical learning conditions in the initial training of future teachers allow them to satisfy their psychological needs for autonomy, relatedness and feeling of competence.
6. The results of this study allow to confirm the **scientific problem solved in research** which consists in the theoretical and methodological foundation of developing the learning motivation to Arab future teachers by enhancing the value of the psycho-social and pedagogical learning context that contributed to the improvement of initial training of the Arab students in the educational field.

The elaborated conclusions allow to formulate the following **recommendations**:

#### **Recommendations for mixed colleges**

1. Development of educational policy focused on the employment of more Arab academics and give Arabic language a more prominent presence in the public spaces of the college.
2. Promotion of multiculturalism by encouraging the students to be more active in student organizations and committees.
3. Initial training of teachers and policy maker experts in order to develop programs and support systems aimed to help Arab students to deal with the challenges they face especially in the first year of study.

#### **Recommendations for Arab colleges**

1. To ensure the quality in the management of the services addressed to students.

2. Creation of student committees that act as representatives of the students, and involve in planning, designing and constructing intervention programs and workshops for enhancing students' learning motivation.

### **Recommendations for both learning contexts**

1. Elaboration of institutional policies that aim to provide support and counseling: individual counseling, study skills training, social mentoring and academic tutoring especially during their first year of study.
2. Formation of intensive study groups (i.e., workshops) programmed for students. These study groups are intended to provide opportunities for participatory learning, social support, social belonging, relatedness, and group problem solving.
3. Development of a support programme for students during the period of initial training focused on enhancing their adaptation and self efficacy skills, personal competence and professional identity fortification.
4. Promotion of a collaborative relation between teacher-student focused on pedagogical and social aspects: empathy, interactive discussions, learn about students' lives and develop a good relation, in order to encourage a sense of social integration, belonging, relatedness and competence.
5. Development of workshops for lecturers and pedagogical instructors in order to improve the training skills, become more student-oriented, more accessible to students and responsive to their needs and concerns.
6. Absorbing more pedagogical instructors and conducting training in smaller groups to improve the quality of training, and strengthening the support which students may receive from their pedagogical instructors.
7. Finding a solution to the problem of teachers' excess in Special Education and lack of jobs and places for the training period. Counselling the students during the training period, which will focus on a possible continuation of professional development that has job opportunities, and new specialties based on the domain of special education.
8. Development of motivational interventions for Arab future teachers, particularly as colleges provide a very different learning context compared to the environment in schools with which they were previously familiar. Students may therefore require extra support to ensure that their motivation remains high and dropout is prevented.
9. Promotion of a multicultural policy at all educational systems in order to provide the Arab minority with the essential tools to deal with the complex reality of the cultural and national uniqueness in Israel.

**Recommendations for further research:**

1. Development of research areas that are connected to learning motivation from the perspective of multiculturalism promotion in the colleges from Israel, dynamic of students' learning motivation during the studies in colleges; influence of personality factors on Arab future teachers' learning motivation.
2. Extending the research regarding the influence of psycho-social and pedagogical context on enhancing learning motivation among Arab future teachers from the perspective of the predictors factors.
3. Conducting a research on different aspects of the educational system in order to explore the college type contribution (Arab or mixed) in personal and professional development of the students.
4. Promotion and refinement of these recommendations in order to study the effects of long-term intervention programs on motivation.
5. Elaboration and implementation in schools of a programme in order to empower Arab students and reduce their difficulties in higher education.

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## APPENDIXES

### Appendix 1

#### Dictionary of Terms

**Amotivation-** lack of energy or desire, can be found when an individual does not see the importance, benefit, or value of an activity, or when the individual is not interested in the activity. The second source of lack of motivation is lack of perceived competence [157] or positive efficacy beliefs [46], which both are essentially needed for an individual to act.

**Motivation-** Motivation is defined broadly by Ryan et al., [157, p. 197], as “that which moves people to act”, and it is determined by both the *energy* of the move and its *direction* [155; 157]. Motivations is what moves people to behave, something that gets us going, keep us working, and help us fulfill tasks [170].

**Learning motivation-** Motivation in order to obtain better performances in learning. This in order to have more qualified teachers in the domain of Special Education. Researchers measure learning motivation by the degree to which students are committed to thinking through problems and working through challenges to master a concept or gain a new skill.

**Self-Determination Theory (SDT)** – a theory of human motivation which identifies the core principles underlying sustainable motivation [e.g., see 63; 155]. It is one of the most comprehensive and empirically supported theories of motivation available today [170, p.248]. The multidimensional view of SDT motivation distinguishes the quantity, amount, or strength of motivation from the quality or type of motivation [42].

**Extrinsic Motivation** is defined as the situation where a person does an action in order to fulfill his/her society expectations, avoid sanctions or comply with external control. In other words, it describes an activity done for its instrumental value [155].

**Intrinsic Motivation** is the term describing the cases where individuals are involved in certain activities because of their personal interests and pursuit of satisfaction [155].

**Autonomous Motivation (regulation)** involves experiencing a sense of full volition and freedom of choice. Autonomous regulation is when a course of action is felt to be personally important and compatible with the individual's core values. Such a behavior is expected to emerge from the individual's true sense of self, thus being considered as self-determined [202].

**Controlled Motivation (regulation)** involves a person feeling pressured or coerced by an external force. When being under control, a person responds to external stimuli on the basis of his or her rigid beliefs that he or she should act as expected. In this sense, individuals feel that



they are obliged to do so in order to feel worthy. They could also behave in a certain way because of their expectations of future threats or rewards from external agents [212].

**External regulation-** The least autonomous type of extrinsic motivation is external regulation, whereby behaviors are sanctioned to obtain rewards or to avoid punishments. Such behaviors are poorly maintained once the controlling contingencies have been removed [134].

**Introjected regulation-** The next type of extrinsic motivation is introjected regulation, whereby behaviors are enacted to satisfy internal contingencies, such as self-aggrandizement or the avoidance of self-derogation [134].

**Identified regulation-** Proceeding toward greater autonomy, behaviors that are enacted because they are considered valuable or important are considered to exemplify identified regulation [134].

**Integrated regulation-** The most autonomous type of extrinsic motivation is integrated regulation, whereby those identified regulations have been synthesized with other aspects of the self [134].

**Psychological Needs (PN):** The main tenets of SDT focus on human beings having three inherent psychological needs (PN): relatedness, competence and autonomy [63; 64; 65; 66; 67]. It is assumed that although the factors of basic need satisfaction may be culturally specific, the importance of supporting basic needs holds across all cultural groups [65].

**Relatedness** refers to the need to feel related to others and have the reassuring sense of belonging to a social group. In the case of teacher-student relationship, supporting relatedness means providing acceptance, respect, and a feel of caring to the students [63].

**Competence** is the need to feel that one is effective in performing the requisite actions. Competence and self-efficacy are closely similar while it is clear that many students manage or fail to develop self-efficacy within a given educational setting [77].

**Autonomy** refers to the need to express one's authentic self and to feel that this self is the source of action. Autonomy is not synonymous to independence or total freedom, but rather it refers to an internal acceptance of, and engagement with, one's motivated behavior [63].

**Pre-service training-** The initial qualification stage is called "pre-service training" including theoretical and practical training of pre-service teachers (future teachers) in the Colleges of Education [80].

**Questionnaire for Special Education Future Teachers  
in Teacher Training Colleges**

Dear student

Thank you for participating in the research!

This questionnaire is delivered as part of a study conducted among future teachers in academic colleges of education in the Department of Special Education.

The research covers various aspects of the learning in college from the student's perspective. In this research you will be asked to answer a second questionnaire at the end of the semester, so for this purpose you are requested to write the last 5 digits of your ID number in order to be able to link the data of the two questionnaires.

The questions have no right or wrong answers; however you should select the answer that best describes you. Therefore, it is very important that you answer honestly. The estimated needed time to complete the questionnaire is 20 minutes.

The questionnaire is anonymous and the information collected is only for research purposes. The participation in the questionnaire is on a voluntary basis. You are asked to circle the correct answer.

Thank you

Basma Jarjoura

Last 5 numbers of your I.D.									
-----------------------------	--	--	--	--	--	--	--	--	--

**A. Background variables**

**Gender**

1. Male

2. Female

**Age**

1. Up to 20

3. 26-30

5. 36-40

2. 21-25

4. 31-35

6. Over 40

**Current marital status:**

1. Single

3. Married, with children

5. Other

2. Married, no children

4. Divorced

**Your current household income compared to the average in Israel (the average net income in the country is about ₪12,500) is:**

1. Up to 4000 ₪

3. 7000 ₪-10,000 ₪

5. Over 13,000 ₪

2. 4000 ₪-7000 ₪                      4. 10,000 ₪-13,000 ₪

**Your Permanent residence:**

1. Arabic city                      2. Mixed city                      3. Arabic village

**Your father’s education:**

1. Primary school (8<sup>th</sup> grade)      2. Secondary school (8<sup>th</sup> to 12<sup>th</sup> grade)      3. Academic

**Your mother’s education:**

1. Primary school (8<sup>th</sup> grade)      2. Secondary school (8<sup>th</sup> to 12<sup>th</sup> grade)      3. Academic

**Your religion:**

1. Muslim                      2. Christian                      3. Druze

**You define yourself as:**

1. Religious                      2. Traditional                      3. Secular

**Current year of study at the department:**

1. First                                      3. Third  
2. Second                                  4. Fourth

**Do you work?**

1. No, I don’t work                      3. Yes, part time  
2. Yes, full-time                      4. Yes, casual jobs

**Self-assessment in Hebrew fluency in the following parameters:**

		Very low fluency	Low fluency	Medium fluency	High fluency	Very high fluency
1	Reading	1	2	3	4	5
2	Writing	1	2	3	4	5
3	Understanding	1	2	3	4	5
4	Speech	1	2	3	4	5

**B. Choosing the college and choosing Special Education Department.**

		To a very small extent	To a small extent	To a medium extent	To a Large extent	To a very large extent
1	I started learning <u>in college</u> from free choice, not of any constraint	1	2	3	4	5
2	I started to study in <u>Special</u>	1	2	3	4	5

	<u>Education Department</u> from free choice					
3	I am satisfied with my choice in the <u>Department of Special Education</u>	1	2	3	4	5
4	If I had the opportunity to choose my profession again, I would choose the profession of Special Education once again	1	2	3	4	5

**B.5. why did you choose to study specifically in this college?**

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**B.6. why did you choose specifically to study in the Department of Special Education?**

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**C. Experience with the lecturers in college**

		<b>Not at all true</b>	<b>Somewhat true</b>	<b>To a medium degree</b>	<b>Largely true</b>	<b>Very much true</b>
1	I feel that most of the lecturers are flexible and give me choices (on the topic of the tasks, due date).	1	2	3	4	5
2	I feel that most of the lecturers understand my needs as a student	1	2	3	4	5
3	Most of the lecturers convey confidence in my ability to do well in the courses	1	2	3	4	5
4	Most of the lecturers encourage me to ask questions	1	2	3	4	5

		<b>Not at all true</b>	<b>Somewhat true</b>	<b>To a medium degree</b>	<b>Largely true</b>	<b>Very much true</b>
5	Most of the lecturers listen to me and consider my opinions (in tasks and exercises).	1	2	3	4	5
6	Most of the lecturers tries to figure out how I plan the tasks before offering me other alternatives	1	2	3	4	5

**D. Please respond to each of the following in terms of how this is true for you in relation to your learning in various courses**

		<b>Not at all true</b>	<b>Somewhat true</b>	<b>To a medium degree</b>	<b>Largely true</b>	<b>Very much true</b>
1	I feel confident in my ability to learn the materials of the courses	1	2	3	4	5
2	I am capable of learning the materials of the courses	1	2	3	4	5
3	I am able to achieve my goals in the courses	1	2	3	4	5
4	I feel able to meet the challenge of performing well in the courses	1	2	3	4	5

**E. The following questions relate to your feelings in college and in study in the past year**

		<b>Not at all true</b>	<b>Somewhat true</b>	<b>To a medium degree</b>	<b>Largely true</b>	<b>Very much true</b>
1	I really like the students I learn with	1	2	3	4	5
2	I get along with students at college	1	2	3	4	5
3	I pretty much keep to myself when I am at college	1	2	3	4	5

4	I consider the students I learn with to be my friends	1	2	3	4	5
5	Students at college care about me	1	2	3	4	5
6	There are not many students at college that I am close to	1	2	3	4	5
7	The students I learn with do not seem to like me much	1	2	3	4	5
8	Students at college are pretty friendly with me	1	2	3	4	5

**F. Active participation in learning**

- **I participate actively in the courses of Special Education...**

		Not at all true	Somewhat true	To a medium degree	Largely true	Very much true
1	...because I feel it's a good way to improve my understanding of the material.	1	2	3	4	5
2	...because others might think badly of me if I didn't.	1	2	3	4	5
3	...because I would feel proud of myself if I did well in the course.	1	2	3	4	5
4	...because a solid understanding of the materials is important to my ability to practice Special Education profession	1	2	3	4	5

- **I am likely to follow my lecturers' suggestions for studying the materials...**

		Not at all true	Somewhat true	To a medium degree	Largely true	Very much true
5	Because I would get a bad grade if I didn't do what they suggest.	1	2	3	4	5

6	Because I am worried that I am not going to perform well in the courses.	1	2	3	4	5
7	Because it's easier to follow their suggestions than come up with my own study strategies.	1	2	3	4	5
8	Because they seem to have insight about how best to learn the material.	1	2	3	4	5

- **The reason that I will work to expand my knowledge of Special Education is...**

		Not at all true	Somewhat true	To a medium degree	Largely true	Very much true
9	...because it's interesting to learn more about the essence of Special Education.	1	2	3	4	5
10	...because it's a challenge to really understand how to solve educational problems in Special Education.	1	2	3	4	5
11	...because good grades in the courses will look positive on my record.	1	2	3	4	5
12	...because I want others to see that I am intelligent.	1	2	3	4	5

### **G. Evaluation of training in the Department of Special Education**

**Department of Special Education training highlights the following areas -**

		Not at all true	Somewhat true	To a medium degree	Largely true	Very much true
1	Curricula and textbooks in Arab society	1	2	3	4	5
2	The teacher - student relationship in the class in Arab society	1	2	3	4	5
3	The relationships with parents in Arab society	1	2	3	4	5
4	Proficiency in all subjects taught at	1	2	3	4	5

	school					
5	Classroom discipline problems in Arab society	1	2	3	4	5
6	Control of methods and new teaching skills (such as telecommunications, technology, etc.)	1	2	3	4	5
7	Changes to the school and the problems in the process of change in the Arab society	1	2	3	4	5
8	The gaps between the theories you learn in college and the reality at schools and offers ways to reduce these gaps	1	2	3	4	5
9	Relevance of the training program you learn in college to the Arab society	1	2	3	4	5
10	<u>The effectiveness</u> of pedagogical training and practical experience in schools	1	2	3	4	5
11	<u>The importance</u> of pedagogical training and practical experience in schools	1	2	3	4	5

#### H. Attitudes towards the teaching profession

		<b>Not at all true</b>	<b>Somewhat true</b>	<b>To a medium degree</b>	<b>Largely true</b>	<b>Very much true</b>
1	Teaching is a social mission	1	2	3	4	5
2	Teaching is an intellectual challenge	1	2	3	4	5
3	Teaching requires long-term investment	1	2	3	4	5
4	Teaching enables to express love to children	1	2	3	4	5
5	Teaching requires constant academic specialization	1	2	3	4	5
6	Teaching requires the teacher to	1	2	3	4	5



	set clear boundaries for students in the classroom					
7	Teaching gives confidence in the professional employment	1	2	3	4	5
8	Teaching allows professional autonomy	1	2	3	4	5
9	Teaching allows introducing changes to the school education system	1	2	3	4	5
10	Teaching job allows promotion in life	1	2	3	4	5

**Thank you very much for your cooperation**

**List of the Cronbach alpha of each part of the questionnaire**

<b>Questionnaire</b>	<b>Factor</b>	<b>Cronbach alpha</b>
A. Hebrew Fluency	Hebrew Fluency	0.934
B. Choosing College & Special Education (CCSE)	Choosing College & Special Education	0.776
C. Autonomy Support	Autonomy Support	0.873
D. Competence	Competence	0.891
E. Relatedness	Relatedness	0.848
F. Learning Self -Regulation	Autonomous Regulation	0.741
	Controlled Regulation	0.702
G. Special Education Program Evaluation	Special Education Program Evaluation	0.904
H. Attitudes Toward Teaching Profession	Attitudes Toward Teaching Profession	0.863

### Informed consent for participating in a focus group

Dear student

This research deals with various aspects related to the learning context at college. As part of this research a focus groups of future teachers will be held within the college. The purpose of the focus group is to provide an opportunity for the future teachers to present their views and perceptions about the learning in college.

The participation in the focus group is on voluntary basis and in coordination with the student schedule. The meeting will last for 1.5 hour and will be held in the college. Thanks in advance for agreeing to participate in a focus group.

---

After receiving a detailed description from the researcher, I agree to participate in this focus group on a voluntarily basis. I am completely aware that my personal information and content will be kept anonymous, and the collected data will be used only for research purposes. As a confirmation for the said above I sign this informed consent:

Student signature

Date

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## Guidelines for focus group questions

The opening aims to introduce and explain to the participants the purpose of the research, and to clarify to them that what they share in the focus group is very important. Furthermore, all personal information and content will be kept anonymous, and the collected data will be used only for the purpose of this research.

For warming up future teachers were asked to introduce themselves, and provide some background about themselves. Then, the following questions were asked:

- Why did you choose the teaching profession?
- Why did you choose the Special Education Department?
- Why did you choose to study at a mixed college / Arab college?
- Why didn't you choose to study the subject at university?
- What are the sources of your knowledge about college? How did you get these sources and who helped you?
- What was the role of parents / friends / close people in making your decision?
- Tell me about your academic experience here at the college?
- How do you arrive in the morning to college? With a good mood? With bad mood?
- What challenges you face in college? How do you cope with the challenges? What and who helps you overcome the challenges?
- Which things "flow" easily in college?
- What do you think the strengths and weaknesses aspects in your college?
- What do you think of Arab college lecturers and instructors?
- What about Jewish lecturers and instructors in college?
- What do you think about the services provided by the college to students?
- What is your opinion regarding your department? Explain?
- How do these challenges and experiences in college affect your learning motivation?
- What can help you feel better in college? What can be done in order to feel more interested and motivated in your studies?
- Make three wishes concerning your study that a magician can fulfill for you?

**List of the focus groups**

<b>Group Number</b>	<b>Group Name</b>	<b>College Type</b>	<b>Number of participants</b>
1	FG1	Mixed college	9
2	FG2	Mixed college	10
3	FG3	Mixed college	4
4	FG4	Mixed college	10
5	FG5	Mixed college	9
6	FG6	Mixed college	11
7	FG7	Arab college	9
8	FG8	Arab college	11
9	FG9	Arab college	9

### **Informed consent for participating in the intervention program**

Dear student

This research deals with various aspects related to the learning context at college. As part of this research an intervention program will be held with the future teachers within the college. The purpose of the intervention program is to provide an opportunity for the future teachers to develop self-determination in the learning process.

There will not be any risks or negative implications as a result of your participation in the intervention. Any identification information of the participants will be kept anonymous and confidential.

Your participation in the intervention program will be on voluntary basis, and in coordination with your learning schedule. Ten meetings are planned, each session will take about an hour and a half. Beside the meetings individual meetings and small group meetings will take place. All meetings will be held in the college. You are free to quite this intervention program at any time with no negative consequences.

Thanks in advance for agreeing to participate in the intervention program.

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After receiving a detailed description from the researcher, I agree to participate in the intervention program on a voluntarily basis. I am completely aware that my personal information and content will be kept anonymous, and the collected data will be used only for research purposes. As a confirmation for the said above I sign this informed consent:

Student signature

Date

\_\_\_\_\_

\_\_\_\_\_

## **The Intervention Program for Enhancing Autonomous Learning motivation among Arab Future Teachers**

**The program rationale:** It is essential to provide information about the importance of autonomous motivation in order to nurture future teachers with the responsibility and capability for the mission of teaching. Therefore it is important to raise the awareness of the college administration regarding the future teachers poor motivation, in order to gain their support of the intervention program. Some of the faculty meeting should be devoted for collaborative thinking and solutions for the issue. The academic staff can benefit from conversation, encouraging openness and ventilation of emotions, creating a supportive emotional climate, and identifying future teachers distress signals.

**Goal of the intervention program:** the goal of the intervention program is to enhance the future teachers autonomous learning motivation in order to prepare competent, capable and caring teachers in the domain of Special Education.

Based on SDT, a learning environment that supports students' needs for autonomy, competence, and relatedness will enhance students' autonomous learning motivation. The intervention focuses on examining whether Arab future teachers would be able to productively function in an environment, where SDT components were implemented for challenging academic learning and enhancing autonomous learning motivation. The program combines means of empowerment and support of future teachers, by the researcher and the guided instructors and lecturers (academic staff). The researcher will inform the academic staff regarding the results of the pre-questionnaire and focus groups, and will present the concept and goals of the intervention program derived from the results, and before the implementation. The academic staff will be guided by the researcher in order to provide them with a practical "toolbox", and in order to create a common language that will assist them in implementing the intervention program with their future teachers.

**Evaluation of the intervention program:** At the end of the program the questionnaire will be distributed among the future teachers again. Results of the questionnaire will form one of the most significant indicators regarding the effectiveness of the program. This will be followed by final reflection in the last meeting of the intervention, then evaluation of the intervention program.

In addition, the management and academic staff will be advised to collect any comments from the future teachers, which could provide further reflection on the program. It is important to ask, comment and enlighten, encourage, support, mediate and sense if the motivation and engagement in learning is enhanced. These reflections should be discussed later in the faculty meetings.

### **The Structure of the Intervention Program**

Target population: future teachers in Special Education Department (treatment group) who are doing their practical field work with children with special needs in the inclusive education.

Number of future teachers in the group: 22.

The intervention structure: the intervention combined educational and experiential meetings in a workshop form, the course content was taught under the SDT tenets. Besides the *collective meetings*, a *small group meetings* and *individual meetings* were held.

Number of the collective meetings: 10 meetings.

Dates of meetings: March 2014- June 2014.

Each meeting lasts about 90 minutes.

Frequency of meetings: once a week (except for the holidays).

Meeting point: study class in the college.

Meetings moderator: the researcher.



## Course of the Program

### The Structure of the Collective Meetings

<b>Date of the Collective Workshop Meetings</b>	<b>Main Theme</b>	<b>Objectives</b>	<b>Methods- Teaching/ Learning Activities</b>	<b>Assessment</b>	<b>Explanation of the Alignment</b>
March 11, 2014	Opening; Contact; Trust building	<p>To "break the ice";</p> <p>Gain an initial understanding between group members;</p> <p>Matching expectations and creating a contract / agreement group;</p> <p>To allow everyone in the group to feel that he contributed something of himself to the group;</p> <p>To build relationships and a supportive, safe environment with future teachers. To enable creative expression for everyone;</p>	<p>The "Legend of the name", workshop in bibliotherapy. future teachers are asked to write and share the story of their name;</p> <p>Group discussion;</p> <p>Reflection.</p>	<p>Allowing each future teachers to express himself;</p> <p>Creating a safe environment that reassures mutual respect, and a free flow of information from the future teachers;</p> <p>Most of the future teachers are adolescence. They are motivated when they have a sense of relatedness, feel they belong, social connections and</p>	<p>Self –expression;</p> <p>Self -awareness.</p>

		Feedback and summary.		acceptance.  Giving personal attention to future teachers during the workshop.	
March 18, 2014	Observations of individual and group students in the inclusive education	Future teachers will show the ability to recognize and value student differences and diversity in how students learn and provide instruction to accommodate such diversity;	Lectures - Information transfer; Applying the concepts learned and writing and analysing the different elements of a good observation;  Small exercises/ case studies during the lecture;  Reflection.	Providing feedback on performance;  Evaluate how the future teachers tackled the different challenges/problems in writing observations by providing formative feedback.	Apply the concepts learned on practical and real life problems;  The project examines the ability of the future teachers to apply the theoretical material in practice.
March 25, 2014	Learning strategies	Future teachers will show understanding of the subject matter and create meaningful learning experiences based on this knowledge;	Lectures - Information transfer;  Discussing presented examples of different and real incidents and stories from the practical field;	Future teachers' answers to the questions;  Future teachers' ability to support their opinions with sound arguments;	This requires the future teachers to develop their own knowledge and dependent thinking;  Articulating their opinions and justifying these opinions would reflect

		<p>Future teachers will compare and discuss different learning strategies, and chose the most appropriate strategy for his individual student in the practical work.</p>	<p>Group discussions/ peer instruction – future teachers read material in advance and present it during the lecture;</p> <p>Minimize competition and comparisons between future teachers by including all future teachers work in the classroom. Selection of few future teachers, may be interpreted that only a few can be successful and cause others to lose interest in participating;</p> <p>Reflection.</p>	<p>Future teachers’ in depth understanding of the material – assessment by future teachers’ ability to motivate their answers to the questions posted during the lecture.</p>	<p>their level of understanding, and competence.</p>
April 1, 2014	Development of didactic tools	<p>Designing didactic activities, tools, games, educational materials, and illustration cards for their practical work field.</p>	<p>workshop to create the different tools and materials for the practical work- “Learning by doing”;</p> <p>Reflection.</p>	<p>Assessment of the tools and materials based on clear and defined criteria;</p> <p>Future teachers feel safe asking questions and contributing to the discussions.</p>	<p>Future teachers work in couples on the educational materials where they can practice “peer instruction”. The tools are a measure of their learning output.</p>

April 8, 2014	Positive classroom climate for students with special needs.	<p>Future teachers will show the ability to create a positive classroom climate/ environment that enables learning and a climate that encourages equality, positive social interactions, active learning, and self-motivation;</p> <p>Future teachers will show effective verbal, nonverbal, written, technological, and media communication skills to support and enhance their students learning;</p> <p>Future teachers will show the ability to collaborate with peers in class.</p>	<p>Discussions and debates during the workshops. Each couple present their progress and the teaching unit they chose and this is discussed then in the groups;</p> <p>Incorrect answers can be reframed as opportunities for learning and development;</p> <p>Write a final report based on clear and defined criteria;</p> <p>Reflection.</p>	<p>Assessment based on clear and defined criteria;</p> <p>Active participation in the class discussion and with peers in class which will enhance the feeling of relatedness and belonging;</p> <p>Exploring their educational philosophy in a safe and supportive classroom climate/ environment as a model for creating a positive classroom climate/ environments in their practical work field.</p>	Apply the concepts learned on practical and real life problems. The project examines the ability of the future teachers to apply the theoretical material in practice.
April 29, 2014	Project Presentations	<p>Summarize, report and present the presentation;</p> <p>Future teachers will show a sense of caring and</p>	<p>Make a short presentation.</p> <p>Discussion in class, feedback from me and</p>	<p>Evaluation of the report in terms of correctness, clarity and structure. Presentation clarity.</p>	The report presents the ability of future teachers to summarize and present their working steps and decisions.

		belonging to the peers.	from their peers;  Show future teachers their own growth and they will begin to believe in their own learning and competences, and see that their effort achieves good results.  Reflection.	Ability to provide supporting motivation for the selected solutions.	The assessment of the report examines the future teachers ability to write, motivate and make conclusions.
May 13, 2014	Project Presentations	Summarize, report and present the presentation;  Future teachers will show a sense of caring and belonging to the peers; future teachers will show pedagogical knowledge and skills and use this expertise to demonstrate critical-thinking and problem-solving skills in real incidents from the practical work.	Make a short presentation.  Discussion in class, feedback from me and from their peers;  Show future teachers their own growth and they will begin to believe in their own learning and competences, and see that their effort achieves good results;  Reflection.	Evaluation of the report in terms of correctness, clarity and structure. Presentation clarity. Ability to provide supporting motivation for the selected solutions.	The report presents the ability of future teachers to summarize and present their working steps and decisions;  The assessment of the report examines the future teachers ability to write, motivate and make conclusions.
May 20, 2014	Writing	Future teachers will show an	Future teachers are asked	Writing "student	The assessment of the

	<p>student profile;</p> <p>Building an "Individualized Educational Plan".</p>	<p>understanding of each student's cognitive, emotional, social, and physical development (in the practical work), and to create learning opportunities that support student learning development;</p> <p>Future teachers will understand the significance of individual differences of children with special needs, and to take applicable steps for their optimum development;</p> <p>Future teachers will show the ability to develop individual educational plans based on student's needs, curriculum goals and models, and subject matter (as requested by the Law of Special Education).</p> <p>Preparation for the tour to the special school of</p>	<p>to prepare and read material in advance and implement it during the activity of writing the students profile and individual plan;</p> <p>Working in small groups (2-3 in each group), then followed by collective sharing and discussions;</p> <p>YouTube short video on "Autistic spectrum disorder" - What Is Autism Spectrum Disorder?  <a href="#">The National Center for Learning Disabilities</a> and chosen sections of the film "Temple Grandin";</p>	<p>profile" based on clear and defined criteria.</p> <p>Assessment of the "Individualized Educational Plan" based on clear and defined criteria.</p> <p>Active participation in the class discussion.</p>	<p>"student profile" and the "Individualized Educational Plan" examines the future teachers ability to perform higher level thinking, analysis, synthesis and evaluation of the materials learned.</p>
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		students with Autistic Spectrum Disorder;	Reflection.		
May 27, 2014	Between theory and practice	<p>Reflection on the tour of last week;</p> <p>Emphasis on the relationship between theoretical and practical aspects of teaching in Special Education.</p> <p>Future teachers will show an understanding of the role of assessment and the use of formal and informal assessment strategies to evaluate student learning.</p>	<p>Collective sharing;</p> <p>Discussion;</p> <p>Minimize competition and comparisons between future teachers by including all future teachers work in the classroom. Selection of few future teachers, may be interpreted that only a few can be successful and cause others to lose interest in participating;</p> <p>Reflection.</p>	Active participation in the class discussion.	Future teachers ability to perform higher level thinking, analysis, synthesis and evaluation of the discussed theme.
June 10, 2014 This meeting lasted about two and a half hours.	Reflection evaluation & Summary	<p>Future teachers will fill the post questionnaire;</p> <p>Future teachers will reflect and evaluate the process;</p> <p>Future teachers will show the skills necessary for self-reflection and use this</p>	<p>Post questionnaire;</p> <p>Reflection on the group and individual process in the group;</p> <p>Emphasizing personal improvement. Not how</p>	<p>Encouraging each future teachers to express himself; giving them choice, and opportunities for self-direction and self-evaluation;</p> <p>Active participation in</p>	<p>Self-expression;</p> <p>Self-awareness;</p> <p>Self-evaluation.</p>

		knowledge to analyze past experiences and pursue professional development opportunities;  Festive Summary.	Future teachers are compared to others, but how they are compared to their previous selves and abilities.	the class discussion;  Providing feedback on performance.	
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**The Structure of the Individual Meetings**

<b>Date of the Individual Meetings</b>	<b>Main Theme</b>	<b>Objectives</b>	<b>Methods</b>
First meeting with each future teachers between March 12, 2014- March 19, 2014.	Matching expectations;  Setting goals.	Discussing expectations from both sides;  Discussing possible developing points;  Providing authentic choices;  Setting goals;  Encourage and support high expectations, and develop individualized goals and plans with each future teachers.	Encouragement of goal directed and self-regulated for autonomous behavior;  Future teachers interests and preferences;  Future teachers have the choice of development and change. The intervention program approach allows future teachers to be active rather than passive by taking responsibility for development and excellence. They are free to choose their direction and goals.  Future teachers feel respected when lecturers make an effort to learn about their interests, attitudes, beliefs, and know who they are as individuals .
Second meeting with each future	Providing quality informative	Provide formative feedback;  Get an impression of the progress;	Emphasizing and evaluating the individual process and effort rather than the results;



<p>teachers between April 29, 2014- May 5, 2014.</p>	<p>feedback</p>	<p>Monitoring and evaluation processes for progress;</p> <p>Future teachers will show the ability to collaborate with their trainer teacher in order to support students learning and development;</p> <p>Future teachers will show the skills necessary for self-reflection and use this knowledge to analyze past experiences and pursue professional development opportunities.</p>	<p>Encouragement of goal directed and self-regulated for autonomous behavior;</p> <p>Reflective listening and empathy help the future teachers understand the feedback and gain a new perspective about the personal impact of substance use, express concern, and begin to consider change and development;</p> <p>Future teachers must believe they are capable of undertaking specific tasks and must have the necessary skills and confidence. It is important to enhance their beliefs in their own abilities;</p> <p>When future teachers realize they are responsible for the change process, they feel empowered and more invested in it. This results in better outcomes, such as increased sense of autonomous motivation. future teachers are the best experts about their own necessities and desires.</p>
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**The Structure of the Small Group Meetings**

<b>Date of the Small Group Meetings</b>	<b>Main Theme</b>	<b>Objectives</b>	<b>Methods</b>
<p>During March</p>	<p>Topic/ theme of the assignment;</p>	<p>Discussing topic ideas for the assignments/ project;</p> <p>Setting goals, developing the concept, and</p>	<p>Taking responsibility, and self-determined behavior.</p>

	Ability to work as a team.	<p>establishing a timetable;</p> <p>Providing authentic choices;</p> <p>Providing materials or directions for looking for material;</p> <p>Future teachers will show the ability to collaborate with peers during the planning and preparation of the assignment;</p> <p>Discuss progress, dilemmas, and set optional tasks for the next meeting.</p>	
Beginning of April	<p>Progress at the assignment/ project;</p> <p>Providing quality informative feedback.</p>	<p>Encouraging self-determined behavior for investigating and searching of services which they need from college;</p> <p>Expression of opinions and insights;</p> <p>Sharing progress at the assignment, and readiness to display it in class.</p>	<p>Taking responsibility, and self-determined behavior;</p> <p>Individualized and formative feedback;</p> <p>Emphasizing persistence through challenges, and evaluating the group process and progress.</p>

## **STATEMENT ON ACCOUNTABILITY**

The undersigned, declare on my own responsibility that the materials presented in the present doctoral thesis are the result of my own researches and scientific achievements. I am aware of the fact that, otherwise, I will bear the consequences in accordance with the law in force.

Jarjoura Basma

Signature

Date

## CURRICULUM VITAE

Name: **Jarjoura Basma**  
Date of birth: 30/7/1975  
Place of birth: Nazareth, Israel  
Citizenship: Israeli

### Education

2012-2016 Ph.D. student at the Faculty of Psychology and Educational Science, Department of Educational Science, specialty- 533.01- Higher Education Pedagogy. Moldova State University- Chisinau.

2003-2004 Certificate studies- Education and treatment by expressive arts therapy- bibliotherapy, the Faculty of Education, the Unit for Advanced Studies and Continuation Studies, Haifa University, Israel.

2001-2003 M.A. (Cum laude), the Department of Education, Counseling and Treatment with Bibliotherapy, Haifa University, Israel.

1997-1998 Teaching certificate- junior and senior high schools, Special Education, Oranim Academic College, Tivon, Israel.

1994-1997 B.A., Bi- Departmental, Faculty of Education, the Department of Special Education and General Studies, Haifa University, Israel.

### Professional Activity

#### Education and Teaching

2011- present Lecturer and pedagogical instructor at the Department of Special Education, Oranim the Academic College for Education, Tivon, Israel. Courses: Teaching trainings; Didactics of Special Education; Teaching skills in Special Education; Unique tools in Special Education and integration of open software; Inclusion of children with special needs.

2010- present Pedagogical instructor in the Department of Special Education, the Arab Academic College in Haifa, Israel.

2007-2012 Lecturer and pedagogical instructor at the Department of Special Education, the Arab Academic College in Haifa, Israel. Courses: Bibliotherapy; Introduction to Special Education; The child with the

special needs and his family; Integration of the child with the special needs; The child with the physical limitations and development disabilities; Personal programs in classes for general education and Special Education.

1997-2005 Teacher and layer coordinator in Deaf- Blind School, Nazareth Sisters. And trainer of students for Special Education from the Department of Teaching in Haifa University, Oranim Academic College and Gordon Academic College.

1995-1997 Teacher for students with learning disabilities (inclusive education). Matia Center and Shfaram Junior School A, Reine School B, Reine Village.

### **Therapy**

2004- present Bibliotherapist and group moderator of parents of students with hearing and sight disabilities- Deaf- Blind School, Nazareth sisters, Ministry of Education, Israel.

2004-2006 Bibliotherapist (under the instruction of the bibliotherapist Aliza Karaban). Matia, Ministry of Education, Haifa, Israel.

2003-2004 Bibliotherapist. Moderator of therapeutic group in the framework of practical work (under the instruction of Dr. Esty Avnon) in the Psychiatric Department, Haemek Hospital, Afula, Israel.

2001-2003 Bibliotherapist. Jubran Khalil Jubran Junior School, and El- Razi Pre-compulsory School, Nazareth, Israel.

**Areas of Scientific Interest:** Special Education; Hearing impairment and deafness; Visual impairment and blindness; Learning disorders and ADHD; Learning motivation in higher education; Self-determination theory; Bibliotherapy; Group facilitator; Multiculturalism; Teacher training.

### **Articles Published in Scientific and Professional Journals**

1. Jarjoura, B., Learning motivation: A self-determination theory perspective. În: Studia Universitatis, Seria Științe ale Educației, 2014, Nr.5(75), p.97-101 (0,5 c.a.).
2. Jarjoura, B., Promoting self-efficacy in the classroom: self-efficacy and students' motivation. În: Studia Universitatis, Seria Științe ale Educației, 2014, Nr.5(75), p.102-106 (0,4 c.a.).
3. Jarjoura, B., Intrinsic motivation and extrinsic motivation. În: Studia Universitatis, Seria

Științe ale Educației, 2014, Nr.9(79), p. 196-199 (0,28 c.a.).

4. Jarjoura, B., College Choices among Arab Pre-Service Teachers Between Intrinsic and Extrinsic Motivation. În: Didactica Pro..., 2014, Nr.5-6 (87-88), p.24-29 (0,7 c.a.)  
ISSN 1810-6455
5. Jarjoura, B., Developing Learning motivation in Teacher Training: The Israeli-Arab Case. În: Studia Universitatis, Seria Științe ale Educației, 2015, Nr.5 (85), p.138-145, ISSN 1857-2103.
6. Jarjoura, B., Developing Learning motivation among Arab Students in Arab Colleges and Mixed Colleges, Athens: ATINER'S Conference Paper Series, HUM2015-1373, 2015. 22 p.
7. Jarjoura, B., Enhancing Learning motivation among Arab Pre-Service Teachers in Arab and Mixed Colleges. Athens Journal of Education, Vol. 2 (4), 2015, p. 359- 382.

#### **Participation and Presentation in International Scientific Conferences**

1. Basma Jarjoura. Multicultural education role in developing motivation in teacher training: the Israeli-Arab case. În: Materialele Conferinței științifice internaționale, "Învățământul postmodern: eficiență și funcționalitate", 15 noiembrie, 2013, Chișinău, 2014, p. 371-374 (0,4 c.a.) ISBN 978-9975-71-513-3.
2. Basma Jarjoura. Motivation in self-determination theory: promoting autonomous motivation. În: Materialele Conferinței științifice internaționale, "Învățământul superior și piața muncii: conexiuni și perspective", 21 noiembrie, 2014, Chișinău, 2014, p. 366-371. ISBN 978-9975-71-675-8.

#### **Rewards:**

2012 Rector's award for summa cum laude in teaching, Oranim Academic College.

#### **Further academic activity:**

1. Academic member of the Athens Institute for Education and Research (ATINER) (since 2015).
2. Paper presentation "Developing learning motivation among Arab students in Arab colleges and mixed colleges"- Annual International Conference on Humanities & Arts in a Global World, held between 3-6 January 2015, Athens, Greece (Ref: HUM2015/702075).
3. Paper presentation "Autonomous and Controlled Motivation among Arab Students in Arab Colleges and Multicultural Colleges"- "Not In My Backyard": Inter-cultural

Inclusion in Educational Systems and in Society, an international conference organized by Beit-Berl College (Israel), Oranim College (Israel) and Rhode Island College (US). Held between 7-8 January, 2015 in Israel.

4. Paper presentation "Promoting Autonomous Learning motivation in Multicultural Learning Contexts- The Arab Pre-Service Teachers Case" Education for the 21<sup>st</sup> Century: Multiculturalism, Children's Rights and Global Citizenship" an international conference organized by DOIT international conference hosted by Gordon Academic College of Education (Israel) held in Haifa, Israel between June 30 -July 2, 2015.
5. Organization of annual seminars in the Arabic Department of Special Education at Oranim Academic College (since 2011).
6. Writing summaries outline by Ariav guidelines, Department of Special Education, Academic Arab College, Haifa.

**Knowledge of Languages:** Arabic (mother tongue); Hebrew (excellent knowledge in spoken and written Hebrew); English (excellent working knowledge).

**Contact Information:**

Address	Street 9/6029, P.O.M. 50062 Nazareth, Postal Code 16100
Telephone	009724-6013588
Mobile phone	00972544-936615
Email	<a href="mailto:basmajorjoura@gmail.com">basmajorjoura@gmail.com</a>