



Sociologie Românească

ISSN: 2668-1455 (print), ISSN: 1220-5389 (electronic)

DEVELOPING SOCIAL SKILLS IN SCHOOLS VIA PHYSICAL EDUCATION PROGRAMS: THE CASE OF ISRAELI MALE HIGH SCHOOL STUDENTS

Nof AMIEL, Beatrice ABALASEI

Sociologie Românească, 2022, vol. 20, Issue 2, pp. 27-48

<https://doi.org/10.33788/sr.20.2.2>

Published by:
Expert Projects Publishing House



On behalf of:
Asociația Română de Sociologie

DEVELOPING SOCIAL SKILLS IN SCHOOLS VIA PHYSICAL EDUCATION PROGRAMS: THE CASE OF ISRAELI MALE HIGH SCHOOL STUDENTS

Nof AMIEL¹, Beatrice ABALASEI²

Abstract

This research proposal aims at studying the development of social skills among high school students through a multidisciplinary program that incorporates physical education and socialization lessons. The study will pursue a multidisciplinary approach by incorporating physical education classes and sports on the one hand with education for social skills on the other. Are students who are active or even participate in physical education classes more prone to develop their social skills than students who do not take part, or tend to remain passive or in these classes? Social skills include students' ability to develop social communication, cooperation in a teamwork, self-discipline, assertiveness and social adaptation skills as influenced by their level of activity in physical education and sports classes. Students are also engaged in reflexive sports mediation. Reflexive mediation takes place during or after a sport session, during which students reflect (discuss and analyze) about events that took place during the sports session, and whether the action and reaction could or should have been done differently.

Keywords: physical education, social skills, Self-concept, Inter-personal conflict management, Israeli high schools, sports.

¹ Faculty of Physical Education and Sport, University *Alexandru Ioan Cuza* of Iasi, Iasi, ROMANIA. E-mail: nofamiel@gmail.com.

² Faculty of Physical Education and Sport, University *Alexandru Ioan Cuza* of Iasi, Iasi, ROMANIA, E-mail: beatrice.abalasei@uaic.ro.

Introduction

This study pursues an interdisciplinary approach in which it seeks to examine how sports education affects a student's social skills, social self-concept, and his ability to deal and manage inter-personal conflicts. This model provides comparisons between Jewish and Bedouin tenth grade male students in Israel. The interdisciplinary model started to be incorporated in the education curriculum as it is believed to be an important and challenging method. Physical education is a major content area in interdisciplinary education. In order to incorporate different subject fields into physical education classes, the teacher needs to learn more about the education curriculum and about each subject that is incorporated in the interdisciplinary lesson. Incorporating conventional subjects with physical activity can be performed easily and can be very beneficial to students at all levels of Education. Thus, this study examines the outcomes of the interdisciplinary educational model incorporating physical education, and social skills. There are studies that incorporated physical education with conventional subjects such as mathematics, biology or languages (Cecchini, & Carriedo, 2020; Spintzyk *et al.*, 2016). The integration of physical activity and information technology into learning environments of conventional subjects, such as geography, history, mathematics etc., is instrumental in developing tools that improve students' learnings and may achieve two goals: improving the body health of the students and allowing them better understanding the subjects they study (Samson, 2014). Likewise, this kind of interdisciplinary approach may contribute to increase the children's physical activities' level during the school day. Over the last two decades, there have been repeated internal changes of the education systems around the world, and an extraordinary mobility being detected to the point of asking for an ultimate reorganisation of the education system from kindergarten to high school (Hasni, Lenoir, & Alessandra, 2015).

The interdisciplinary approach to physical activity asserts that children who are taught academic skills through body movement, learn better than those who are taught the same subjects by conventional learning methods (Cecchini, & Carriedo, 2020). Furthermore, many studies show the relationship between the absorption of knowledge and body movement (Solomon, & Murata, 2008). Others scholars similarly argue that memory is enhanced when the body and the mind complement each other's feedback (Solomon, & Murata, 2008). Physical education is a major content area in interdisciplinary education. The movement factors of physical education can be used as a means through which students are provided with opportunities to exercise and reinforce their language skills. Thus, interdisciplinary teaching, in general, is an educational process, where several subject areas are integrated with the aim of promoting enhanced learning in each subject area. The interdisciplinary program helps students by enriching their learning across education disciplines, while including the knowledge and proficiency brought up by other teachers. This study seeks to explain whether students who participated

in an interdisciplinary program with a trained teacher improved their social skills better than students who participated in conventional physical sport lessons.

Physical education is a mandatory subject at schools, which is anchored in the core curriculum of the education system, therefore it is vital subject in elementary and high schools. Furthermore, in recent decades, there has been an increasing demand for the integration of physical education into Kindergartens' curriculum. The basic assumption that stands behind this argument is the need to examine the validity of the educational content which is learned in schools.

The Impact of Sport on the Development of Social Skills

The general conception is that sport positively affects people's physical and mental health (Allen *et al.*, 2010). The assumption that sport contributes to the personal development of people in a positive sense has a long tradition in the theory of physical education, sport practice, sport policy and sport science. This is how the pedagogical postulates on the positive effects of sporting activities on personal development are substantiated, as they are highly marked and used as an essential line of reasoning for the legitimation of school sport (Roger-Rees, 1990). School sports should make a contribution to health promotion on the one hand, and also to personal development on the other (Cardinal, 2016). Basically, sport in general and physical education in particular are about a double task: to develop both the sport and movement habits as well as the personality of participants. This expresses the so-called double mandate: one is promoting body development through movement, play and sport, and second enhancing play and sport culture, which legitimizes school sport not exclusively through education for sport, but also education through sport. This concept is undisputed in most school sport curricula at schools (Neely, & Holt, 2011). This consensus does not only exist in sports science, but also in general school research, which also focuses on the development of interdisciplinary skills (Kaittani *et al.*, 2017).

A central aspect of personal development is social competence, which contributes significantly to private and professional success and well-being. It is sometimes attributed to the early prevention of possible risk developments such as violence or delinquency as well as the ex-ante reduction in the likelihood of potential burdens such as social isolation (Brinkhoff, 2000; Jerusalem, & Klein-Hessling, 2002a). Particularly in childhood and adolescence, great importance is attached to the development of this personality trait, from the point of view of both developmental psychology and educational policy, and thus forms an integral part of the general educational mission. Roger-Rees (1990) not only refers to the goal in itself of fulfilling the legally prescribed social goals when teaching social skills at school, but also sees the social skills-related learning goal as a central component of the human and freedom rights required by law, school values, education and personality development. In particular, sport is said to have the

potential to contribute to imparting social skills as a field of social action (Neely, & Holt, 2011). In this context, Ericsson states that the importance of motor skill acquisition early in life is often overlooked, which may limit qualitative aspects of interventions, such as (1) motor skill development, (2) socialization and (3) enjoyment of exercise (Ericsson, 2017). Based on this anchoring, the topic of social education in school sport is reflected in the Swedish national curricula, which explicitly refers to its individual facets of social action.

This compilation could be continued at national level with regard to various other states' curricula. A number of comparable formulations can also be found in school laws and curricula in many OECD countries, in which the promotion of social skills is shown as part of the work assignment on the topic of sport (Allen *et al.*, 2010).

In view of the educational demands and the increasing pressure to legitimize the topic of sport in the curriculum of school subjects, the question arises of the empirical examination of the socio-educational effect of physical education and thus of realistic possibilities of positively influencing social learning processes within the framework of the obligatory curriculum sports lessons. Does this mean that school sport even achieves what it claims to do and are these postulated personality-building goals really achievable? Does school sport automatically promote social skills or does the lessons have to be staged in a targeted manner combined with selective expansion using cognitive methods?

These questions have only been addressed to a limited extent within sports science teaching research - understood as a special field of teaching/learning research with the central program of empirical educational research and educational psychology. In the last few decades, working groups focused on sports education have made efforts to provide empirical evidence for the pedagogical theory about the development of social competences in school sports (Weinert, 2001). Although these studies are encouraging regarding the normatively conducted discourse, there are only a few studies focusing on the interrelationship between sporting activity and social learning processes in the school context (Albrecht *et al.*, 2015). As another study aptly summarizes, however, the current findings provide initial indications that social competence can be approached systematically in the context of physical education (Allen *et al.*, 2010). The present work therefore addresses the topic and tries, on the basis of current theories and research findings, to make a contribution to the systematic review of the connection between sporting activity and the development of social skills and social competence in general in the school context in order to pursue the educational policy demand for social educational support in school sport (Lopes *et al.*, 2015; Merrell *et al.*, 2014). Special attention is also paid to the question of the effectiveness of the teaching concept or teaching method and thus the effect of a specific staging of physical education with the aim of developing social skills through school sports.

Theoretical discussions of social education in the context of sports education have a long tradition, from which diverse approaches have emerged, but social educational research efforts such as the topic of developing social skills in school sports have only enjoyed a high value since the empirical turnaround (Stuij, 2015). Closely related to this turning point is primarily that of personality research in sports science, which assumes an effect of the independent variable sport on the dependent variable personality. The so-called socialization hypothesis is asked when aspects for the pedagogical justification of sport as a positive educational factor, the justification of physical-motor measures or the promotion of talent are examined. The assertion “Sport (in itself) makes people better” also relates to an educational policy and school pedagogical discourse that has increasingly become mandatory in several OECD countries over the last few decades (Allen *et al.*, 2010). Gould and Carson (2008), for example, link general physical education with the objective of self-independence, interdependence, and solidarity. In addition to other skills, this includes social education. The promotion of social competences is presented accordingly as a central educational goal of the school, apart from the training of specialist competency, and is a basic fact of every conceivable school reality. School sport is repeatedly proclaimed as a suitable medium for this, which provides a further reason for the topic of sport-pedagogical teaching research.

Personal Development Through Sport

The main frame of reference for the development of social skills in school sport can be drawn from the sport-personality development, which is confronted with the fundamental problem of inconsistent scientific findings when it comes to the connection between sport and personality. The main reason therefore is that the terms sport and personality show a considerable lack of clarity both in the scientific discussion and in everyday language (Neely, & Holt, 2011).

The term sport is a multifaceted social phenomenon that brings together very different activities in everyday language (Ericsson, 2017). This also has an effect on the sports science terminology discussion and in turn makes a standardized definition more difficult. Irrespective of this, there is the problem that the primarily sociological specification of the term sport does not provide any direct clues in the sense of the psychological effects of sporting activities on personality for the psychological topic of sport and personality (Roger-Rees, 1990). Due to the fact that it is not possible to speak of sport with consistent conditions and requirement structures, studies on the connection between sport and personality require both a differentiated personality theory and precise assumptions about psychological dispositions in sport that can be influenced by sport (Allen, Greenlees, & Jones, 2013). So far, the majority of sports psychology has failed to present appropriate assumptions or theories or to identify what is to be understood by sport (Ericsson, 2017; Allen *et al.*, 2013).

From these studies it should become clear that sport per se cannot be given the credit of always having a positive influence on personality development. Rather, it needs conceptual clarifications and a limitation of topics in order to do justice to the complexity of the subject. Information about which sport is practiced in which way under which framework conditions, which effects it should have on which personality traits, are therefore an inevitable prerequisite for studies.

School Sport as a Field of Social Education

In the structure of school physical education, can be identified the three Cs of the basic dimensions of social action, Communication, Cooperation and Competition, which can be used for systematic social education (Stuij, 2015). In sport, communication takes place on a linguistic as well as a physical level, in the sense of direct social movement education. The linguistic form of communication can be observed, for example, when discussing or changing exercise and sports games and requires verbal willingness and ability to communicate. The communication in sport on the physical level is characterized, for example, by two sports players who are so well rehearsed with one another that there is to a certain extent a tacit understanding between one another, and one gets by without essential verbal communication. The second basic dimension is the willingness and ability to cooperate, which is decisive in order to be able to successfully enter into teamwork relationships (Polvi, & Telama, 2000).

Finally, competition in the sense of competition in (school) sport can be understood as a special and demanding form of cooperation, which is well illustrated in the required virtue of fairness. Competition in physical education requires a distance from selfish needs, so that all participants can enjoy an exciting game or competition. In the structures of school sport and physical education there are special opportunities with regard to social action and learning and thus offering scope for promoting a wide range of social skills (Casey, & Goodyear, 2015; Cardinal, 2016). In the context of social education, for example, physical education has certain conditions, such as the general age-characteristic level of development that cannot be ignored for successful development promotion, but above all it enables various opportunities for individual promotion. This includes aspects such as understanding and testing social rules, promoting cooperation, proving oneself in competitive situations and learning about social regulation in peer groups (Donnelly, & Lambourne, 2011).

In addition to the mentioned opportunities for social education in school sport, Gould and Carson (2008) also refers to structures that can hinder the development of prosocial behavior. Aggressive behaviors are particularly to be observed in sports practice when victory and defeat are of excessive importance. These manifest themselves from the exclusion of underperforming players to the conscious disregard or violation of common rules to obvious hostility to the opposing team (Escartí *et al.*, 2010). In particular, there is danger in competitive

forms of sport, in which the importance of success reduces the importance of prosocial behavior. Although there is a certain reservoir of danger for antisocial behavior, the media, politics, but also sports education suddenly see school sports as having the potential to convey social norms and values and to promote social skills. Physical education in particular also has favorable conditions. On the one hand, it is less commercialized and formalized, on the other hand, the focus on performance and competition is not all-encompassing.

Composition of Social Skills and Competence

The term of social competence overlaps with some related concepts that have a similar meaning. These are concepts that are sometimes used as a synonym for social skills including both social intelligence, emotional intelligence and interpersonal competence, as well as social skills (Salovey & Mayer, 1990). Social intelligence means the ability to understand other people and to act wisely in social relationships. Although a generally valid construct does not prevail, one primarily associates cognitive performance with social intelligence, which, however, only represents a subset of those competencies that are necessary to control social behavior, operationalize social intelligence through the ability to assess situations, recognize emotional states, observe human behavior, remember people and their names and engage with others in a sense of humor (Riggio, 1986; Beauchamp & Anderson, 2010).

In contrast, emotional intelligence is one of the new skill concepts and has made a name for itself primarily through popular scientific publications. Salovey and Mayer (1989) understand it to be the ability to recognize and differentiate one's own emotions as well as the emotions of other people in order to use them to control one's own behavior. The concept therefore comprises several individual skills in which, similar to social intelligence, cognitive processes are in the foreground (Riggio, 1986). In addition to the sub-skills of internal and external emotion regulation, knowledge of one's own emotions and those of other people is also part of emotional competence (Riggio, 1986). Riggio adds that emotional competence as self-efficacy, defined by the abilities and skills of an individual to achieve a desired result, is expressed in emotion-inducing social transactions.

According to Riggio (1986), social skills are described as the successful achievement of goals and plans in social interactions. According to this statement, the acting person first has a specific goal, based on which the relevant situation parameters are perceived. The subsequent interpretation of these parameters triggers a certain behavior, which in turn leads to a modification of the environment or reaction of the interacting partners. Following this reciprocity, the result of the interaction is compared with the original goal and, if necessary, the entire process is repeated until the result corresponds to the goal. Riggio does not equate socially competent behavior with helpful action, but only refers to the effectiveness with

which a desired goal can be achieved. According to these considerations, socially competent behavior can certainly be linked to antisocial behavior.

With regard to the school context, the exclusion from assuming responsibility, adherence to norms and other social goals seem problematic in the definitions that emphasize self-interest. In this way, social responsibility is practically excluded from the literature. This, in turn, would probably encourage selfish behavior in the school framework. However, since value education is a primary goal of the general educational mandate of the school, behavioral corrective concepts for promoting social skills are rather questionable (Davies *et al.*, 2014).

Hence, a person is considered socially competent if he knows how to adapt himself to the social conditions of the social context (Weinert, 2001). Weinert regards social competencies as the ability to judge and act in socially and politically important areas of society. This definition aims at the ideal of a social maturity, which, among other things, aims to counteract societal grievances. As, in contrast to this, other studies emphasize adaptability as fundamental, they certainly belong in the upper area in the positioning of the social competence-related approaches on the vertical axis and on the horizontal axis rather around the middle (Klieme, Hartig, & Rauch, 2008). The authors generally see social skills as skills for meeting social needs and goals, with the focus on the relationship between social skills and social ties.

As part of the general educational system in many OECD countries, school sport, especially in children and adolescents, is given the potential to contribute to imparting social values and social skills. With a high density of interactions, school sport has favorable prerequisites opportunities for social interaction and for dealing and cooperating with others. According to Cardinal (2016), this is important for the recognition and acquisition of information processing processes, which in turn are on the foreground when promoting social skills. In physical education there is also the fundamental possibility of placing less emphasis on competitive performance, which means that more space can be used for social education (Cardinal, 2016). In this regard, school sport plays a special role in the comparison of subjects. According to another study, this subject, with its numerous situations in dealing with rules, interdependence, cooperation, etc., offers greater freedom for initiating social learning processes than most other subjects, and sociality is evident among the students as an almost natural condition (Neely, & Holt, 2011). Allen, Drane *et al.* ((2010) also see the actual social conflicts in a school class as a natural material for engaging students both affectively and cognitively. This is particularly true for the subject of sport, since from a structural point of view, social regulation processes are coherent in most games and exercise situations. In connection with the socio-educational potential of school sport, Cardianl (2016) also refers to the fact that, from the pupil's point of view, well-being in physical education is significantly higher than the general well-being in school and thus a positive learning climate is more likely to predominate in sport lessons.

However, simply ascribing the label of positively connoted prosocial education to sport lessons would be a mistake. The current state of research shows that the development of social skills does not come about automatically. The specific staging is of decisive importance, since social competencies are taken into account to different degrees and weightings in sporting activities (Allen *et al.*, 2010). Thus, this implies that systematically supporting the development of social competence through school sport must start with those dimensions that are important for coping with sport-specific requirements. Against this background, sports games in particular are given great importance with regard to social skills.

Methodology Section

Quantitative research, first, starts by defining differences within a certain population in terms of standard variables that pertain to everyone, while different people show differing *levels or amounts* of the variables. Second, measuring *how much* different people have of each variable. Third, calculating the existence of correlation relationships among the variables that may point to the existence of cause-effect relationships among them (Hanushek, & Jackson, 2013). In the example of my empirical case below, observed differences among students could be expressed in terms of the differences in the impact of physical education and discipline in physical training on social skills. Now the question arises: What *causes* such differences?

Independent Variables:

Identity of the student: Jewish or Bedouin.

Group: Trained Group of teachers (TG); Untrained Group (UTG), and Control Group (CG).

Stages or progress in the program: T0-T4.

Dependent variables:

The dependent variables in the Parents Questionnaire can be clustered under five categories: Initiating relationships, Self-disclosure, Asserting displeasure with colleague's behavior, Offering emotional-support, and Handling interpersonal-conflicts.

The dependent variables in the Teachers Questionnaire include mainly two variables: Social skills and Problematic Behavior.

In order to control the influences on the social competence that could be shaped or at least influenced by outside intervention, three groups of Jewish and three groups of Bedouin male students from grade 10 were created: TG, UTG and CG (Trained Group, Untrained Group and the Control Group, respectively). 14 and 9 Jewish and Bedouin kids in each group or 42 and 27 Jewish and Bedouin children

in total in all the three groups. Thus, the research focuses on Israeli male high school students from the Jewish and Bedouin communities and whether there are differences among the three groups (TG, UTG and CG), and between Jewish and Bedouin students in improving social skills and dealing with problematic behavior. The population of the research, who filled out the questions were physical education teachers and parents of Jewish and Bedouin students from two high schools (one Jewish and one Bedouin) in Southern Israel from and around the city of Beer-Sheva.

Hypotheses

H1: The self-concept of social acceptance increases more in TG than in UTG or CG.

H2: Specifically staged and program-compliant physical education reduces the occurrence of anti-social behavior.

H3: Jewish students come with a starting point of more sophisticated social skills, therefore the gap in social skills among Jewish and Bedouin students remains fixed by the end of the experiment.

The duration of research was over 18 weeks and students in the experimental groups met twice a week for around 90 minutes of training. As the project leader, I visited the groups and conducted my observations and interviews during the period of the research. Hence, the study was conducted over five stages: T0, T1, T2, T3 and T4. The parents and teachers filled out a questionnaire at each of the five points of time: at T0: the beginning of the research, T1: after 6 weeks of research onset, T2: after 12 weeks, and T3: after 18 weeks. Then we waited six weeks and asked both parents and teachers to fill out another questionnaire at T4 in order to examine whether the social skills “stuck” after the end of the experiment.

All in all, 210 and 135 questionnaires filled out by Jewish and Bedouin parents in the parents’ sample and the same amount by teachers: 210 and 135 questionnaires by teachers from the Jewish and Bedouin sectors. Given the regulations by the Ministry of Israel that children cannot participate in a survey without the permission of the Ministry, we opted to ask parents and teachers to fill out the questionnaire (I mentioned this in my proposal). In other words, the total number of entries (questionnaires) in *each* of the teachers and parents quantitative database is 345.

In the parents’ questionnaire, the various questions are clustered under five main categories: Initiating-Relationships, Asserting-displeasure-with-others-actions, Self-Disclosure, Providing-emotional-support, and Managing-Interpersonal-Conflicts. The mean value of the data of the questions under each of the five categories was calculated and then the mean value of these categories is used as a dependent variable. The teachers’ questionnaire includes two main categories: Social-Skills and Problem-Behavior. Likewise, the mean value of the data of the questions under both categories is calculated and used as a dependent variable.

All in all, the study ended up using these five dependent variables in the parents' sample and two dependent variables in teachers' sample. Having said that, the study also conducted several tests of each of the questions in both questionnaires. These tests include Cronbach's Alpha, the Spearman correlation, Kruskal-Wallis test, Mann-Whitney test, linear regression etc. To control for the influences on the social self-concept that could have an effect outside of the intervention, potential variables were collected and examined with regard to the three experimental groups: TG, UTG and CG and the Kruskal-Wallis test is used in order to examine differences in the medians among these groups. This same test is also applied to examine the progress of students over the various stages from T0 to T4. The Test of Mann-Whitney is applied in order to examine whether there are significant differences between Bedouin and Jewish students in the development of their social skills or problematic behaviors as a result of school sports classes.

Quantitative Analysis

Tables 1 and 2 reveal high internal consistency (Cronbach's $\alpha = .96$). In the case of social self-concept, some equally questionable values can be recorded in relation to the inner consistency, which must be taken into account when interpreting the impact of the project.

Table 1. Cronbach's α (Parents)

Case Processing Summary: Parents Sample			
		N	%
Cases	Valid	345	100.0
	Excluded	0	.0
	Total	345	100.0
Reliability Statistics			
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items		N of Items
.965	.965		40

Table 2. Cronbach's α (Teachers)

Case Processing Summary: Teachers Sample			
		N	%
Cases	Valid	345	100.0
	Excluded	0	.0
	Total	345	100.0
Reliability Statistics			
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items		N of Items
.960	.960		48

Table 3 shows that the teachers of the experimental groups, in their own perception, adhered to the specified form of staging and implemented the contents of the intervention. The outcome in Table 3 shows that each of the stages 0-4 are different from each other, which means that students indeed made progress from one stage to the next. It should be mentioned that similar results were also received from the sample of parents regarding the variable of Stages. Thus, both samples show that each stage is different from the next, and it can be concluded that students, regardless of the group that they were in, made progress as they advanced from one stage to the next. Further, the quality of progress from one stage to another was effective, and the involvement of the participants can be determined. It can be assumed that the splitting of the research methods into two different experimental groups did not result in any differential effect in terms of program implementation from the perspective of the parents. It can be assumed that the splitting of research methods into two experimental groups and one control group, based on the parents' sample, did not result in any differential effect in terms of program implementation from the perspective of the parents. Before a general conclusion can be drawn, it is necessary to take a detailed look at the outcome quality, where whether due to the training and support measures, a significant difference in favor of the Trained Group (TG) is only to be expected in this implementation area.

Table 3. Kruskal-Wallis Test (Grouping Variable: Stages 0-4, Teachers Sample)

	Controls temper in conflict situations with peers	Introduces herself or himself to new people without being told	Appropriately questions rules that may be unfair.	Compromises in conflict situations by changing own ideas to reach agreement	Responds appropriately to peer pressure	Says nice things about himself or herself when appropriate
Kruskal-Wallis H	83.412	46.360	49.874	29.238	59.142	66.977
df	4	4	4	4	4	4
Asymp. Sig.	0.000	0.000	0.000	0.000	0.000	0.000
	Uses free time in an acceptable way	Finishes class assignments within time limits	Makes friends easily	Responds appropriately to teasing by peers	Controls temper in conflict situations with adults	Receives criticism well
Kruskal-Wallis H	52.969	57.070	55.327	41.938	47.744	45.483
df	4	4	4	4	4	4
Asymp. Sig.	0.000	0.000	0.000	0.000	0.000	0.000
	Uses time appropriately while waiting for help	Produces correct schoolwork	Appropriately tells you when he or she thinks you have treated him or her unfairly	Accepts peers ideas for group activities	Gives compliments to peers	Follows your directions
Kruskal-Wallis H	38.860	38.573	59.009	46.149	57.448	71.295
df	4	4	4	4	4	4
Asymp. Sig.	0.000	0.000	0.000	0.000	0.000	0.000
	Cooperates with peers without prompting	Volunteers to help peers with classroom tasks	Joins ongoing activity or group without being told	Responds appropriately when pushed or hit by other children	Ignores peer distractions when doing class work	Keeps desk clean and neat without being reminded
Kruskal-Wallis H	73.924	74.711	77.039	85.894	45.855	64.761
df	4	4	4	4	4	4

Asymp. Sig.	0.000	0.000	0.000	0.000	0.000	0.000
	Easily makes transition from one classroom activity to another	Gets along with people who are different	Fights with others	Has low self-esteem	Threatens or bullies others	Appears lonely
Kruskal-Wallis H	52.139	55.087	77.235	86.412	66.536	65.233
df	4	4	4	4	4	4
Asymp. Sig.	0.000	0.000	0.000	0.000	0.000	0.000
	Interrupts conversations of others	Disturbs ongoing activities	Shows anxiety about being with a group of children	Is easily embarrassed	Doesnt listen to what others say	Argues with others
Kruskal-Wallis H	63.486	48.131	55.834	43.035	46.735	59.688
df	4	4	4	4	4	4
Asymp. Sig.	0.000	0.000	0.000	0.000	0.000	0.000
	Gets angry easily	Likes to be alone	Acts sad or depressed	Acts impulsively	Fidgets or moves excessively	Problem Behavior
Kruskal-Wallis H	40.490	62.045	47.026	54.923	57.122	156.860
df	4	4	4	4	4	4
Asymp. Sig.	0.000	0.000	0.000	0.000	0.000	0.000

Table 4 shows the Kruskal-Wallis Test for the three groups: CG, UTG, and TG in the teachers' sample. As one can see from the Table, all variables are significant, which means that the groups are different from each other. In other words, it can be claimed that the TG provides better social skills than the UTG and the latter also provides better social skills than the CG, where the skills of the groups are ranked as the following: TG>UTG>CG. Yet, this outcome on significance was received only in the Teachers sample, but not in the parents one.

Table 4. Kruskal Wallis Test (Groups: CT=0, UTG=1, TG=2, Teachers Sample

	Controls temper in conflict situations with peers	Introduces herself or himself to new people without being told	Appropriately questions rules that may be unfair.	Compromises in conflict situations by changing own ideas to reach agreement	Responds appropriately to peer pressure	Says nice things about himself or herself when appropriate
Kruskal-Wallis H	9.803	40.262	11.801	66.717	7.445	4.487
df	2	2	2	2	2	2
Asymp. Sig.	0.007	0.000	0.003	0.000	0.024	0.106
	Uses free time in an acceptable way	Finishes class assignments within time limits	Makes friends easily	Responds appropriately to teasing by peers	Controls temper in conflict situations with adults	Receives criticism well
Kruskal-Wallis H	35.283	13.609	32.324	14.643	12.065	15.717
df	2	2	2	2	2	2
Asymp. Sig.	0.000	0.001	0.000	0.001	0.002	0.000
	Uses time appropriately while waiting for help	Produces correct schoolwork	Appropriately tells you when he or she thinks you have treated him or her unfairly	Accepts peers ideas for group activities	Gives compliments to peers	Follows your directions
Kruskal-Wallis H	31.058	55.083	24.136	44.313	25.907	25.085
df	2	2	2	2	2	2
Asymp. Sig.	0.000	0.000	0.000	0.000	0.000	0.000
	Cooperates with peers without prompting	Volunteers to help peers with classroom tasks	Joins ongoing activity or group without being told	Responds appropriately when pushed or hit by other children	Ignores peer distractions when doing class work	Keeps desk clean and neat without being reminded
Kruskal-Wallis H	26.565	7.400	3.690	13.248	17.007	26.914
df	2	2	2	2	2	2
Asymp. Sig.	0.000	0.025	0.158	0.001	0.000	0.000

	Easily makes transition from one classroom activity to another	Gets along with people who are different	Fights with others	Has low self-esteem	Threatens or bullies others	Appears lonely
Kruskal-Wallis H	25.705	36.425	6.540	4.321	13.140	24.841
df	2	2	2	2	2	2
Asymp. Sig.	0.000	0.000	0.038	0.115	0.001	0.000
	Interrupts conversations of others	Disturbs ongoing activities	Shows anxiety about being with a group of children	Is easily embarrassed	Doesn't listen to what others say	Argues with others
Kruskal-Wallis H	32.506	44.733	28.951	33.960	37.186	8.458
df	2	2	2	2	2	2
Asymp. Sig.	0.000	0.000	0.000	0.000	0.000	0.015
	Gets angry easily	Likes to be alone	Acts sad or depressed	Acts impulsively	Fidgets or moves excessively	Problem Behavior
Kruskal-Wallis H	12.119	15.703	17.342	18.332	16.915	52.467
df	2	2	2	2	2	2
Asymp. Sig.	0.002	0.000	0.000	0.000	0.000	0.000

For this purpose, the four dimensions of outcome quality are analyzed and considered individually. In addition, the CG can also be added, since they were also asked about this during the post-program test (T4). Certain aspects of the dimensions of the implementation area of “getting along with people” stand out descriptively. The methodological reflection as the central teaching principle of the intervention was implemented the least of all facets, the teachers of the control group assess themselves more positively in every dimension than their colleagues in the TG and UTG, although they neither received teaching materials nor took part in any intervention-related further training of the experimental groups. In addition, the means of the TG are all higher than those of the UTG or the CG. Despite the visually apparent differences, only the comparison to the methodical reflection can be statistically verified.

From Table 5 (*parents' sample*), it is clear that only the variable of Stages (T0-T4) is significant at p-value of less than 0.05 and the correlation is positive. This means that students had improved their social skills and enhanced their ability to manage their interpersonal conflict over the stages of the program. In other words,

at the end of the program, students were better equipped with social skills than at the beginning or the middle of the program. This correlation is true for all students in the various programs. Yet, neither the variables of identity (Jewish-Bedouin J0B1) nor the variable of group type (CG, UT and TG) is significant.

Table 5. Spearman Correlation

Spearman Correlations (Parents)			
	J=0; B=1	Stage	CG=0; Ut=1; T=2
Asking or suggesting to someone new that s/he gets together and do something, e.g., go out together	0.001	.552**	0.076
Telling a companion that s/he does not like a certain way the companion has been treating him/her	-0.038	.490**	0.032
Revealing something intimate about him/herself while talking to someone s/he is just getting to know	0.031	.520**	0.016
Helping a close companion work through his/her thoughts and feelings about a major life decision, e.g., a career choice	-0.022	.593**	0.062
Being able to admit that he might be wrong when disagreement with a close companion begins to build into a serious fight	0.044	.575**	-0.003
Finding and suggesting things to do with new people whom s/he finds interesting and attractive	-0.029	.600**	-0.012
Saying "no" when a friend/acquaintance asks him/her to do something s/he does not want to do	-0.010	.593**	-0.013
Your son confiding in a new friend and letting the latter see your child's softer, more sensitive side	-0.071	.556**	-0.066
Being able to patiently and sensitively listen to a companion "let off steam" about outside problems s/he is having	0.038	.573**	-0.022
Being able to put resentful feelings aside when having a fight with a close companion	0.062	.576**	-0.028
Carrying on conversations with someone new whom s/he thinks s/he might like to get to know	-0.003	.534**	0.042
Turning down a request by a companion that is unreasonable	-0.004	.560**	0.049
Telling a close companion things about him/herself that s/he is ashamed of	0.011	.558**	0.021
Helping a close companion to get to the heart of a problem s/he is experiencing	0.018	.486**	0.001

When having a conflict with a close companion, really listening to his/her complaints and not trying to “read” his/her mind	-0.036	.495**	0.045
Being an interesting and enjoyable person to be with when first getting to know people	0.081	.630**	0.045
Standing up for his/her rights when a companion is neglecting him/her or being inconsiderate	0.020	.544**	-0.020
Letting a new companion get to know the “real him/her.”	-0.049	.603**	0.055
Helping a close companion to cope with family problems	0.017	.546**	0.043
Being able to take a companion’s perspective in a fight and really understand his/her point of view	0.048	.553**	-0.015
Introducing himself to someone he might like to get to know/date	0.031	.454**	0.042
Telling a date/acquaintance that he or she is doing something that embarrasses your son/daughter	0.066	.595**	-0.052
Letting down your protective “outer shell” and trusting a close companion	-0.085	.555**	-0.049
Being a good and sensitive listener for a companion who is upset	0.012	.570**	0.022
Refraining from saying things that might cause a disagreement to build into a big fight	0.010	.556**	-0.002
Calling (on the phone) a new date/acquaintance to set up a time to get together and do something	0.047	.587**	0.036
Confronting his/her close companion when he/she has broken a promise	0.024	.482**	-0.040
Telling a close companion about the things that secretly make him/her feel anxious or afraid	-0.071	.518**	-0.019
Being able to say and do things to support a close companion when s/he is feeling down	0.010	.570**	-0.071
Being able to work through a specific problem with a companion without resorting to general accusations (“you always do that”).	0.057	.586**	0.046
Presenting good first impressions to people you might like to become friends with (or date).	0.096	.508**	-0.078
Telling a companion that he or she has done something that hurts your feelings	0.048	.510**	0.006
Telling a close companion how much your son/daughter appreciates and care for him/her	0.002	.469**	-0.032

Being able to show genuine empathetic concern even when a companion's problem is uninteresting to him/her	0.081	.585**	-0.028
When angry with a companion, being able to accept that s/he has a valid point of view even if your son/daughter does not agree with that view	0.095	.498**	-0.024
Going to parties or gatherings where s/he does not know people well in order to start up new relationships	0.080	.607**	-0.043
Telling a date / acquaintance that he or she has done something that made your son/daughter angry	0.009	.568**	-0.015
Knowing how to move a conversation with a date/ acquaintance beyond superficial talk to really get to know each other	0.064	.592**	0.039
When a close companion needs help and support, being able to give advice in ways that are well received	0.083	.527**	0.011
Not exploding at a close companion (even when it is justified) in order to avoid a damaging conflict	-0.054	.510**	-0.005
	345	345	345

Finally, intervention effects persist even after the intervention has ended. The positive influence of the intervention on the self-concept of the ability to cooperate can still be demonstrated after three weeks. The test shows a significant interaction effect between the three groups. As with the evaluation between the pre- and post-test, this mode of action results again from the different changes in the TG and UTG. The contrast analysis for the individual comparison can therefore be statistically verified. This intervention effect therefore persists even after the end of the treatment phase.

The answer to the first part of the hypotheses H1 and H2 is hence partially positive. Only for the self-concept of social acceptance is there a significant interaction effect, which however can only be attributed to the individual comparison between the three groups. Nevertheless, the good implementation group also shows a noticeable increase in the mean value, where the specifically staged physical education lessons have at least tended to be positively influenced. However, all other evaluations show no significant change three weeks after the end of the intervention. Thus, based on the teachers' sample, this hypothesis can be also accepted. The results also prove H3, where there are significant differences in the mean value among Jewish and Bedouin students.

Conclusion

Based on calculations from the teachers' sample, Jewish students came with a starting point of more sophisticated social skills and while the experiments are positive among both groups, the impact of the experiments on Jewish students are stronger. Further, the stages T0-T4 are different from each other, which means that students indeed made progress from one stage to the next. It should be mentioned that similar results were also received from the sample of parents regarding the variable of Stages. Thus, both samples show that each stage is different from the next, and it can be concluded that students, regardless of the group that they were in or their background identity, made progress as they advanced from one stage to the next.

Moreover, based on the teachers' sample, the groups CG, UTG, and TG are different from each other. In other words, it can be claimed that the TG provides better social skills than the UTG and the latter also provides better social skills than the CG, where the skills of the groups are ranked as the following: TG>UTG>CG. Finally, the outcome of the qualitative analysis is more or less compatible with the findings of the quantitative analysis. The only main difference is that some Bedouin parents of children from the CG did not notice any progress in the social skills of their child, while based on calculations of both samples it was found that there was an improvement in the social skills of children from stage T0 to T4. This analysis also found a difference between Jewish and Bedouin children and that children in the TG had scored the highest improvement in promoting their social skills.

References

- Albrecht, S. F., Mathur, S. R., Jones, R. E., & Alazemi, S. (2015). A school-wide three-tiered program of social skills intervention: Results of a three-year cohort study, *Education and Treatment of Children*, 38(4), 565-586.
- Allen, J., Drane, D. D., Byon, K. K., & Mohn, R. S. (2010). Sport as a vehicle for socialization and maintenance of cultural identity: International students attending American universities, *Sport Management Review*, 13(4), 421-434.
- Allen, M., Greenlees, I., & Jones, M. (2013). Personality in sport: A comprehensive review, *International Review of Sport and Exercise Psychology*, 6(1), 184-208.
- Beauchamp, M. H., & Anderson, V. (2010). SOCIAL: an integrative framework for the development of social skills, *Psychological bulletin*, 136(1), 39-53.
- Cardinal, B. J. (2016). Physical Activity Education's Contributions to Public Health and Interdisciplinary Studies: Documenting More than Individual Health Benefits, *Journal of Physical Education, Recreation & Dance*, 87(4), 3-5. doi:10.1080/07303084.2016.1142182.
- Casey, A., & Goodyear, V. A. (2015). Can cooperative learning achieve the four learning outcomes of physical education? A review of literature, *Quest*, 67(1), 56-72.

- Cecchini, J. A., & Carriedo, A. (2020). Effects of an interdisciplinary approach integrating mathematics and physical education on mathematical learning and physical activity levels, *Journal of teaching in Physical Education*, 39(1), 121-125.
- Davies, M. D., Cooper, G., Kettler, R. J., & Elliott, S. N. (2014). Developing social skills of students with additional needs within the context of the Australian curriculum, *Australasian journal of special education*, 37-55.
- Donnelly, J. E., & Lambourne, K. (2011). Classroom-based physical activity, cognition, and academic achievement, *Preventive Medicine*, 52, S36-S42.
- Ericsson, I. (2017). Effects of physical activity and motor skills acquisition on executive functions and scholastic performance: a review, 71-104.
- Escartí, A., Gutiérrez, M., Pascual, C., & Marín, D. (2010). Application of Hellison's teaching personal and social responsibility model in physical education to improve self-efficacy for adolescents at risk of dropping-out of school, *The Spanish journal of psychology*, 13(2), 667-676.
- Hanushek, E. A., & Jackson, J. E. (2013). *Statistical methods for social scientists*, Academic Press.
- Hasni, A., Lenoir, Y., & Alessandra, F. (2015). Mandated Interdisciplinarity in Secondary School: The Case of Science, Technology, and Mathematics Teachers in Quebec, *Issues in Interdisciplinary Studies*, 33, 144-180.
- Kaittani, D., Kouli, O., Derri, V., & Kioumourtzoglou, E. (2017). Interdisciplinary teaching in physical education, *Arab Journal of Nutrition and Exercise (AJNE)*, 91-101.
- Klieme, E., Hartig, J., & Rauch, D. (2008). The concept of competence in educational contexts. In J. Hartig & D. L.E. Klieme (Eds.), *Assessment of competencies in educational contexts*, Seattle, WA: Hogrefe & Huber Publishers, 3-22.
- Lopes, D. C., Gerolamo, M. C., Del Prette, Z. A. P., Musetti, M. A., & Del Prette, A. (2015). Social skills: A key factor for engineering students to develop interpersonal skills. *International Journal of Engineering Education*, 31(1), 405-413.
- Merrell, K. W., & Gimpel, G. (2014). *Social skills of children and adolescents: Conceptualization, assessment, treatment*, Psychology Press.
- Neely, K., & Holt, N. (2011). Positive youth development through sport: A review, *Revista Iberoamericana de Psicología de Ejercicio y el Deporte*, 2, 299-316.
- Polvi, S., & Telama, R. (2000). The use of cooperative learning as a social enhancer in physical education. *Scandinavian journal of educational research*, 44(1), 105-115.
- Riggio, R. E. (1986). Assessment of basic social skills, *Journal of Personality and social Psychology*, 51(3), 649.
- Roger-Rees, C. (1990). Do high school sports build character? A quasi-experiment on a national sample, *The Social Science Journal*, 27(3), 303-315.
- Salovey, P., & Mayer, J. D. (1990). Emotional intelligence, *Imagination, cognition and personality*, 9(3), 185-211.
- Samson, G. (2014). From writing to doing: The challenges of implementing integration (and interdisciplinarity) in the teaching of mathematics, sciences, and technology, *Canadian Journal of Science, Mathematics and Technology Education*, 14(4), 346-358.
- Solomon, J., & Murata, N. M. (2008). Physical education and language arts: An interdisciplinary teaching approach, *Strategies*, 21(6), 19-23.

- Spintzyk, K., Strehlke, F., Ohlberger, S., Groeben, B., & Wegner, C. (2016). An Empirical Study Investigating Interdisciplinary Teaching of Biology and Physical Education, 25, 35-42.
- Stuij, M. (2015). Habitus and social class: A case study on socialisation into sports and exercise. *Sport, Education and Society*, 20(6), 780-798.
- Weinert, F. E. (2001). Concept of competence: A conceptual clarification. In D. S. Rychen & L. H. S. (Eds.), *Defining and selecting key competencies* (pp.). Seattle, WA: Hogrefe & Huber Publishers, 45-65.