



www.ijres.net

Negotiation Efficacy in Conflicts between Students: Results from a Portuguese Study

Pedro Cunha 

Faculty of Human and Social Sciences of University
Fernando Pessoa, Portugal

Maria Olímpia Paiva 

Agrupamento de Escolas Alexandre Herculano, Portugal

Ana Paula Monteiro 

University of Trás-os-Montes and Alto Douro, Portugal

To cite this article:

Cunha, P., Paiva, M. O., & Monteiro, A. P. (2021). Negotiation efficacy in conflicts between students: Results from a Portuguese study. *International Journal of Research in Education and Science (IJRES)*, 7(4), 1076-1089. <https://doi.org/10.46328/ijres.2389>

The International Journal of Research in Education and Science (IJRES) is a peer-reviewed scholarly online journal. This article may be used for research, teaching, and private study purposes. Authors alone are responsible for the contents of their articles. The journal owns the copyright of the articles. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of the research material. All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations regarding the submitted work.



This work is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.



International Journal of Research in Education and Science (IJRES) is affiliated with the **[International Society for Technology, Education, and Science \(ISTES\): www.istes.org](http://www.istes.org)**

Negotiation Efficacy in Conflicts between Students: Results from a Portuguese Study

Pedro Cunha, Maria Olímpia Paiva, Ana Paula Monteiro

Article Info

Article History

Received:

07 February 2021

Accepted:

30 August 2021

Keywords

Conflict

Negotiation

Efficacy

Students

Abstract

Negotiation is one of the most used conflict management procedures in the school context, since through an effective solution against violence is reached. This investigation considers personal and scholars variables that can influence negotiation efficacy in conflicts between elementary school students, namely sex, school grade, number of failures, study time school goals, and evaluation. Following a quantitative approach, the sample consisted of 874 Portuguese students from elementary schools, 452 males and 422 females with ages ranged between 10 and 18 years. The instruments applied were a personal questionnaire, and the School Conflicts Negotiation Efficacy Questionnaire (SCNEQ). The results show that sex, number of failures, and study time have an influence on the students' negotiation efficacy, as well as on student's evaluations. The limitations of the study and practical implications for conflict management in schools are also presented, namely that the development of students' negotiation abilities is relevant.

Introduction

Similarity and differences among people are important psychosocial processes in interpersonal relationships management, since, whatever the links that unite them, there are moments in life where feelings, thoughts, interests, objectives and actions collide with each other (Manesis, Vlachou, & Mitropoulou, 2019; Torrego, Gómez, & Negro, 2007). The perceptions of conflict are different, since certain individuals will perceive it as negative or harmful while others perceive conflict as positive and beneficial (Rahim, 2011). School, as a social organization, shares a set of characteristics that imply tensions and conflicts. Conflict can be defined as a situation between, at least, two interdependent parts that perceived irreconcilable objectives, scarce resources and the interference of others that difficult the achievement of their objectives (Galtung 2000; Wilmot & Hocker, 2001).

The role of interpersonal conflicts in school (organization founded in a profound net of affective, social and professional interdependent relationships) constitutes a stimuli to researchers, teachers or other professionals of school with the sense of developing the bases of a peace culture in that social organization (Cunha, & Monteiro, 2016; Manesis, Vlachou, & Mitropoulou, 2019). In that sense, it is important to study conflicts in school since they have a negative effect not only on teachers' performance, but also on students' performance (academic

success, quality of relationships, and sense of happiness) (Özgan, 2016). Despite the relevance of studying the role played by conflicts in the daily life of adolescents, this dimension of school life has been little studied as highlighted by Luna-Bernal, Mejía-Ceballos and Laca-Arocena (2017). The attention of the literature in the area tends to focus on the analysis of the phenomenon of school violence, particularly bullying (Luna-Bernal et al., 2017), as well as in school mediation programs and practices (Shahmohammadi, 2014) and less in negotiation.

In that sense, one must remember that direct negotiation is one of the most used conflict management mechanisms in the school context and can provide a structure in which conflicting interests can be reconciled, through communication, avoiding conflict escalation, and the use of force (Cunha, Monteiro, Lourenço, & Paiva, 2016). It can be understood as an act with the aim of producing a result - the agreement (a decision that affects the protagonists and represents decisions that are collaboration among the involved). Through negotiation parts seek, using dialogue, to find a solution that, in the best of hypotheses, satisfies entirely both of them and, in the worst, produces unequal results, but, in any case, is preferable to the disposable alternatives (Pruitt & Carnevale, 2003; Wilmot, & Hocker, 2001).

A negotiation process is determined, in a large way, by the perception that the parts have about it. The concept of social perception is very relevant in negotiation since it can influence subject's behaviors. In many situations, negotiators don't have access to enough information to elaborate objective analysis and take rational decisions. And the part's perceptions are often non coincident. Each of the negotiators can perceive a divergence of interests when in reality they are compatible, or they can attribute to the other hostile attitudes that are simply projections of their own attitudes (Pérez-Yus, Ayllón-Negrillo, Delsignore, Magallón-Botaya, Aguilar-Latorre, & Oliván Blázquez, 2020).

According to Ficher, Kopelman and Schneider (1996), an adequate perception of conflict integrates its analysis from three dimensions: perception of our own point of view (knowledge of our state of mood), perception of the other point of view (comprehension of the interests, values and beliefs of the other part) and perception of conflict from a third part's point of view (which allows a more global vision of it). The study of negotiation efficacy has been one of the questions that most attention has received in the literature of specialty, academic and managerial, for its theoretical and empirical consequences (Rahim, 2011). The concept is centered in the way that people solve conflicts, which lead to negotiation in a way that those people perceive and express the agreement found as a solution to the conflict, so that it is acceptable for all and that they recognize their own expectations in it (Cunha, Monteiro et al., 2016).

Negotiation constitutes a positive alternative to confrontation (adjusted on the imposition of interests of one party over the other) and avoidance (based on acceptance of own interests), by establishing in the search for satisfactory agreements parties through constructive dialogue (Brandoni, 2017). From Mastenbroek's perspective (2013), negotiation involves performing different activities to solve progressively a set of dilemmas and problems that arise during that process. The conduct of negotiators can be evaluated according to the extent in which they adopt four criteria: obtain positive results (obtaining substantial results is identified as the main objective of the negotiation), influence the balance of power (describes a dimension if looking for influence on

the balance of power, that is fundamental to obtain a certain stability between parties), develop a constructive climate (it is based on the development of a more favorable setting for the negotiation act), and promote flexible dynamics (refers mainly to procedural flexibility, to elect a flexible dynamic between negotiators).

Although its relevance, the studies about negotiation efficacy in school context are scarce. Existing studies have focused on the relationship between negotiation efficacy and self-concept (Cunha, Lourenço, Paiva, & Monteiro, 2016) and students' personality and personal variables (Lourenço, & Paiva, 2004; Paiva, & Lourenço, 2011). Considering the literature review about negotiation in school conflicts and its scarcity, the main objective of this research consists in verifying how some personal (sex) and school variables (school grade, number of school failures, study time, and school goals) influence student's negotiation efficacy. Subsequently, there were the following assumptions:

- H1. Girls show to be more effective in the negotiation of a conflict than boys;
- H2. Students in 9th grade show greater negotiation efficacy in conflict resolution for the remaining years of schooling;
- H3. The negotiating efficacy of conflict is negatively affected by the number of failures;
- H4. Greater investment in the study time, by the students, influenced in a positive way the negotiating efficacy in conflict resolution in schools;
- H5. The negotiating efficacy of students in conflict resolution is positively influenced by their school goals;
- H6. The negotiating efficacy in conflict resolution has a positive effect in the evaluation of the students.

Method

Study Design

This study is quantitative in nature, trying to quantify phenomena by means of statistic procedures. It is, furthermore, a cross-sectional study, since several variables have been measured in a single moment (Marôco, 2007).

Participants

The schools involved in the research were located in a school district in Portugal. The sample is composed by 874 students of the 2nd and 3rd cycles of basic school, 87.1% of a universe of 1004 students' schools, namely 216 (24.7%) students of school 1, 495 (56.6%) school 2, and 163 (18.7%) of school 3. Regarding sex, 452 of the students were male and 422 females. The student ranged between 10 and 18 years of age ($M=13$, $SD=1.66$ for the male and $SD=1.70$ for female). At the time of the investigation, 133 students' study in the 5th grade, 206 in the 6th grade, 162 the 7th grade, 178 the 8th, and 195 the 9th grade.

Instruments

The instruments used were:

- A personal questionnaire was created specifically to this research to assess sex, age, school grade, number of

school failures, evaluation in four disciplines (Portuguese, English, Mathematics, and Natural Sciences), study time (assessed using an open question about the daily number of hours that students spend studying and was assessed over the course of one full week), and school goals (assessed using a closed question about the student desire of continuing to study, namely not decided yet, until 9th grade, until 12th grade and/or university studies);

- The School Conflict Negotiation Effectiveness Questionnaire (SCNEQ) (Cunha, Lourenço, Paiva, & Monteiro, 2016) to evaluate negotiation efficacy of conflict management in school context. This questionnaire consists of 21 items in a 5 point Likert format (1 - Strongly Disagree to 5 - Strongly Agree) distributed across five dimensions: Negotiating Influence (NI) (e.g., "I make my opponent feel that only my interests and needs are important; usually, when the opponent does not accept my proposal, I threaten to break the negotiation"); Negotiating Climate (NC) (e.g., "To reach the agreement it is important to reveal common tastes and to emphasize the affinities with the opponent; It is important to create security in the other party when it is desired to obtain a satisfactory and lasting agreement"); Negotiation Rationality (NR) (e.g., "I can accept my opponent's criticisms"; "In order to reach an agreement I never give up on finding a positive result for the problem"); Behavioral Firmness-Flexibility (FC) (e.g., "My way of negotiating is based mainly on common sense and my ability to debate issues; to achieve good results I present, as much as possible, several alternatives for solving the problem") and Constructive Solutions (SC) (e.g., "In a negotiation it is essential to work together to find the common interests of both parties; "At the end of the conflict it is important to have a mutual agreement"). The negotiation effectiveness of conflicts in the school context is assessed by adding the scores in the respective subscales, which varies from 21 (lower efficacy) to 105 (higher efficacy). The total scale has an $\alpha = .87$ and the dimensions of the scale, "Negotiation Influence", "Negotiation Climate", "Negotiation Rationality", "Firmness-Behavioral Flexibility" and "Constructive Solutions" correspond to the alphas of .86, .87, .88, .90 and .90 (Cunha, Lourenço et al., 2016).

Procedure

It was obtained authorization by the Ministry of Education to apply the questionnaires, as well as explained the purpose of the study. Subsequently, school principals were asked to collaborate in the research, namely in how the questionnaires were going to be applied. The instruments were administered in the classroom context with the presence of one researcher, and the application time had an average of 15-20 minutes. In the case of the students with less than 18 years old parents were previously asked for informed consent. Conventional ethical aspects were also observed, such as the protection of identity and the guarantee of total confidentiality of data. Students were very receptive and their participation was voluntary and confidential.

Results

Social-Demographical Characterization of the Sample

It was found that students of this sample study on average 6.25 hours a week (7 days), 47.9% studying 4 hours or less and 9.7% do not devote any time to study. Regarding the number of failures, 67.5% of students have no disapproval in their school career and 20.3% disapproved just once. Looking at Table 1 it can be seen that the

students, in the 2nd cycle of basic education (CEB), that fail more are from grade 6, having the boys a higher mean ($M = .62$; $SD = .845$), yet it is in this same school year that students invest more time in the study, namely girls ($M = 7.45$; $SD = 6.363$). It is noteworthy that girls of 5th grade are who fail less ($M = .24$; $SD = .506$) and the boys are those who study less ($M = 4.93$; $SD = 4.654$).

In Portuguese, the girls of the 5th grade reach an average of over three ($M = 3.03$; $SD = .725$). In English and Natural Sciences, girls of 5th grade and 6th grade are again those who achieve a mean equal or superior to three. In Mathematics, girls from 5th grade ($M = 2.81$; $SD = .687$) and boys of 6th grade ($M = 2.84$; $SD = .780$) reach a mean close to level 3. We can conclude that the girls obtain a better mean in all subjects and in both years of school, except for Mathematics in the 6th grade. We also note that these means equal or superior to 3 in the two to three years of school were not found in Mathematics, as well as in Portuguese in the 6th grade.

Table1. Distribution of Means and Standard Deviations of the Number of Failures, Hours of Study and Assessment Levels in Portuguese, Mathematics, English, and Natural Sciences, in Function of the Grade and Gender, on the 2nd CEB

Variables	5th grade				6th grade			
	Male		Female		Male		Female	
	(N=75)		(N=58)		(N=102)		(N=104)	
	M	SD	M	SD	M	SD	M	SD
No. Failures	.44	.889	.24	.506	.62	.845	.43	.773
Study Time	4.93	4.654	5.91	6.010	6.08	5.489	7.45	6.363
Portuguese	2.76	.750	3.03	.725	2.75	.696	2.88	.804
Mathematics	2.73	.794	2.81	.687	2.84	.780	2.75	.797
English	2.88	.986	3.03	.858	2.87	.804	3.00	.965
Natural Sciences	2.89	.764	3.09	.779	2.99	.814	3.06	.822

Looking at Table 2 it appears that the level of disapproval is very similar in the three years of school that makes up this cycle, although it is apparent that the boys and girls of the 8th grade have lower means for the remaining years. The girls in 9th grade are those that reveal more deductions ($M = .51$; $SD = .691$) and the boys of the 8th grade who fail less ($M = .41$; $SD = .695$), and it is always the group of girls who exhibit a higher mean retentions relative to boys in the three years of schooling. In contrast, and regarding to the time devoted to study, it appears that the girls have the highest mean over the three years of education, although this same study time decreases during the cycle. In this course of study girls are those who have more failures, but are also those who indicate to study more.

In Portuguese and Mathematics, although never reaching the level 3, girls are always those who have a higher mean than boys. Regarding English, boys have better results than girls in 8th grade ($M = 2.82$; $SD = .848$) and 9th grade ($M = 3.15$; $SD = .984$). In this subject, levels equal to or more than 3 are reached in 7th and 9th grade. In Natural Sciences girls always get better means, which are also more than three in 8th ($M = 3.08$; $SD = .900$) and 9th grade ($M = 3.02$; $SD = .833$). In general, girls in this course of study achieve better results than boys.

We also note here that means greater than or equal to 3 are only reached in English in the 7th and 9th grade and Natural Sciences at the 8th grade.

Table 2. Distribution of Means and Standard Deviations of the Number of Failures, Hours of Study and Assessment Levels in Portuguese, Mathematics, English and Natural Sciences, in Function of the Grade and Gender, on the 3rd CEB

Variables	7th grade				8th grade				9th grade			
	Male		Female		Male		Female		Male		Female	
	(N=94)		(N=68)		(N=85)		(N=93)		(N=96)		(N=99)	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
No. Failures	.49	.786	.50	.855	.41	.695	.43	.698	.50	.725	.51	.691
Study Time	6.10	5.659	7.82	6.850	4.92	5.337	7.12	6.039	5.83	5.403	6.16	6.335
Portuguese	2.63	.762	2.93	.739	2.54	.628	2.77	.754	2.68	.747	2.83	.770
Mathematics	2.67	.822	2.74	.940	2.44	.680	2.74	.871	2.46	.780	2.70	.952
English	2.90	.893	3.13	.991	2.82	.848	2.70	.844	3.15	.984	3.03	1.005
Natural Science	2.79	.971	2.81	.966	2.91	.840	3.08	.900	2.96	.767	3.02	.833

From Table 3 it can be inferred that girls of school 3 are those with a higher mean in the number of retentions ($M = .61$; $SD = .85$), and spend less time studying ($M = 6.32$; $SD = 5.07$). With regard to evaluation levels achieved in the four surveyed subjects, it is also school 3 that gets the lowest mean, except in Natural Sciences ($M = 2.99$; $SD = .81$). It is school 2 that gets the best results in the four subjects, only with the exception of boys of school 3, in Natural Sciences, reaching almost the same mean. Means equal or higher than 3 in English are obtained in schools 1 and 2 and in Natural Sciences in schools 2 and 3.

Table 3. Distribution of Means and Standard Deviations of the Number of Failures, Hours of Study and Assessment Levels in Portuguese, Mathematics, English and Science, by Gender and School in the 2nd and 3rd CEB

Variables	School 1				School 2				School 3			
	Male		Female		Male		Female		Male		Female	
	(N=124)		(N=92)		(N=253)		(N=242)		(N=75)		(N=88)	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
No. Failures	.58	.83	.57	.83	.43	.75	.32	.60	.60	.84	.61	.85
Study Time	5.73	5.36	7.57	6.46	5.52	5.31	6.90	6.68	5.77	5.53	6.32	5.07
Portuguese	2.60	.72	2.85	.71	2.74	.71	2.98	.79	2.57	.74	2.60	.69
Mathematics	2.61	.82	2.68	.88	2.65	.78	2.85	.87	2.60	.77	2.51	.77
English	2.97	.94	3.04	.98	3.02	.90	3.10	.95	2.55	.76	2.52	.77
Natural Sciences	2.72	.95	2.77	.90	2.98	.77	3.12	.88	2.99	.81	2.99	.72

Considering the total sample, in Table 4 it may be remarked that most of the students aim to complete a graduation ($N = 371$; 42.4%), although there are many students who have not yet decided on its school goals (N

= 247; 28.3%). It is also possible to verify that 212 students (24.3%) intend to finish their studies at the end of 12th grade and a group of 44 students (5%) aim to complete only the 9th grade. With regard to sex, girls have higher educational ambitions because most of them (N = 204; 23.3%) choose to finish a bachelor degree, only 16 students (1.8%) want to get the 9th grade education and they are also less undecided about their future school (girls - from 111 to 12.7%; boys - from 136 to 15.6%).

Table 4. Distribution of Frequencies of School Goals in Function of Gender and School, in 2nd and 3rd CEB

Variables	School 1				School 2				School 3			
	End	End	End	Not yet	End	End	End	Not yet	End	End	End	Not yet
	9° grade	12° grade	bachelor degree	decided	9° grade	12° grade	bachelor degree	decided	9° grade	12° grade	bachelor degree	decided
Male	13	38	51	22	12	56	92	93	3	27	24	21
Female	2	23	45	22	11	46	126	59	3	22	33	30

Making an analysis of school goals (see Table 4), we can infer that in schools 1 and 2 about 44% of the students want to finish a graduation, however in school 3 only 35% have this ambition. For this variable, girls of schools 2 and 3 show a higher frequency compared to boys, in contrast to the first school where there is a greater number of boys with more ambitious goals. As for the student's indecision about their school future, school 1 has the lowest number of undecided students (n=44; 20.4%), followed by schools 2 and 3, approximately 31% each. Girls of school 2 are less undecided relative to boys, contrary to school 3 where we observed the same value in school 1. It also can be seen in all schools that the number of students seeking to complete the studies at the end of the 12th grade is significantly higher than that wish to complete only the 9th grade.

Model Structural Analysis

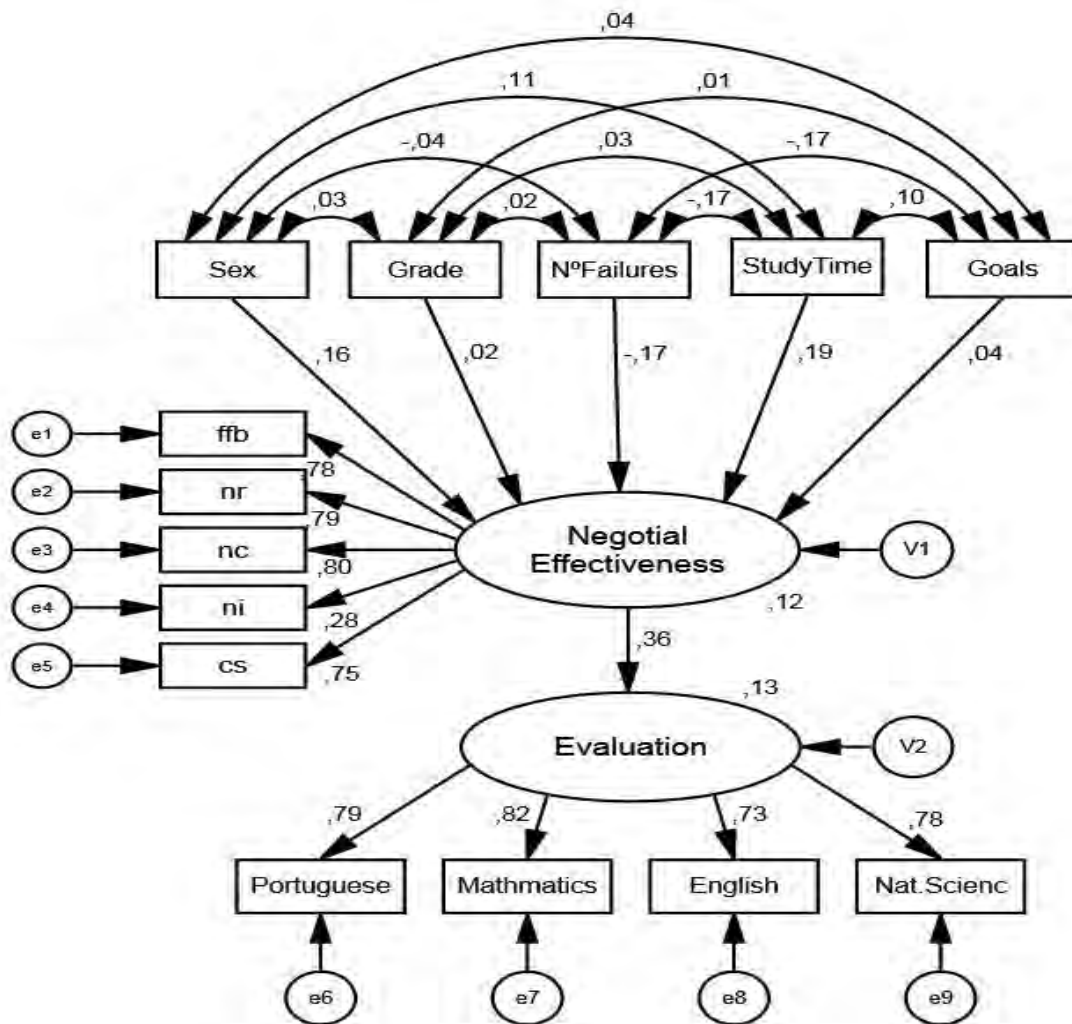
For this type of analysis, we used the SPSS/AMOS 22 program (Arbuckle, 2012; Lowe, Winzar, & Ward, 2007). We examined the results, and all cases with missing values were eliminated to assist in the evaluation of the parameters, using the Maximum Likelihood (ML) method of estimation in AMOS program. We also maintained the outliers, since the descriptive statistics for each of the samples still appeared adequate. The model fit was estimated supported by statistical indexes most frequently used: Chi-square (χ^2); χ^2 /Degrees of Freedom; Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI) and Root Mean Square Error of Approximation (RMSEA). A series of statistics and fit indexes were used to analyze the postulated model.

In order to test the suitability of SCNEQ, we used the structural equation models (Lowe, Winzar, & Ward, 2007) to determine whether the negotiating effectiveness of conflicts of students in study influences the levels reached in Portuguese, Mathematics, English and Sciences, as well as if certain variables (sex, grade, number of failures, hours of study and school goals) are relevant to the definition of the negotiating effectiveness of conflicts of students (see Figure 1). The structural equation modeling technique allows evaluating the causal relationships between variables inferred (not directly observed) through a set of observed variables that serve as

markers of each latent variable or inferred. According to Byrne (2001), this technique has advantages over other techniques such as:

- (i) states that the variance is not stable over time;
- (ii) allows calculating the errors of the measures (observed variables); and
- (iii) allows to calculate quickly the statistical significance of each causal effect and the global adjustment of the hypothetical model.

If the global adjustment of the tested model is appropriate, it approves the relationships or effects shown by the model. After collecting the data, it became its application in the model (see Figure 1), with reference to the constructs and dimensions associated with them.



Legend: V1 = residual variance of the latent variable Negotiation Efficacy; V2 = residual variance of the latent variable Levels of Evaluation; the letter (e) followed by a number (1, 2, ...) refers to the measurement error of the respective observable variable.

Figure 1. Pictorial Specification Model of Causal Relations with the Standardized Values

In Table 5 we can observe the descriptive data (minimum, maximum, mean, standard deviation, asymmetry and kurtosis) corresponding to the variables included in the structural equation model. It was taken as criterion the

one established by Curran, West and Finch (1996), which considers that higher values of asymmetry than 3 and greater than 10 kurtosis should not be accepted. In the sample, no variable reveals values close to those criteria, so it is justified to estimate the model fit.

Table 5. Descriptive Statistics (Minimum, Maximum, Mean, Standard Deviation, Asymmetry and Kurtosis) corresponding to the Variables included in the Structural Equation Model

Variable	Minimum	Maximum	Mean	SD	Asymmetry	Kurtosis
Number of failures	1	4	.47	.758	-.376	-.591
Study Time	0	35	6.25	5.88	1.554	3.014
Firm-Flexibility Behavior (FFB)	4	20	15.20	2.56	-.380	.366
Negotiation Climate (NC)	5	25	18.71	3.06	-.427	1,238
Negotiation Influence (NI)	5	25	16.78	4.02	.050	-.461
Constructive Solutions (CS)	3	15	11.89	2.24	-.677	.824
Negotiation Rationality (NR)	4	20	15.30	2.66	-.574	1,056
Portuguese	1	5	2.77	.748	.566	.043
Mathematics	1	5	2.68	.824	.838	.445
English	1	5	2.95	.925	.582	-.344
Natural Sciences	1	5	2.96	.850	.432	-.068

Figure 1 specifies the hypothesized model to the students of the sample. The possible causal relationships are set out in the model as the assumptions outlined at the beginning of the investigation. The evaluation of the staining results of the structural equation model is based on two criteria: global model adjustment and significance of the calculated regression coefficients. The global adjustment goodness indexes of the proposed model are acceptable ($\chi^2 = 333.180$; $\chi^2 / df = 5.048$; GFI = .948; AGFI = .916; CFI = .927; TLI = .900; RMSEA = .068), confirming the hypothesis that the model is the relationship between the variables in our empirical matrix.

By the analysis in Table 6 and Figure 1, we can conclude that the assumptions that guided the specifications were all confirmed, with exception of the associations between grade and negotiation efficacy and between this and school goals.

- H1. Girls showed a higher negotiation effectiveness in resolving conflicts for boys ($\alpha = .16$; $p < .001$);
- H2. Students in 9th grade show greater negotiation efficacy in conflict resolution for the remaining years of schooling ($\alpha = .02$; non-significant);
- H3. The negotiation efficacy is negatively affected by the number of failures of the students ($\alpha = - .17$; $p < .001$);
- H4. Greater investment in time study by the students is influenced in a positive way by the negotiating efficacy in conflict resolution in schools ($\alpha = .19$; $p < .001$);
- H5. The negotiating efficacy of students in conflict resolution is positively influenced by their school goals ($\alpha = .04$; $p =$ non-significant); and
- H6. The negotiating efficacy in conflict resolution has a positive effect in the evaluation of the students ($\alpha = .36$; $p < .001$).

From the analysis of the exogenous variables (Table 6), it can be inferred that as they progress in schooling students fail more ($\alpha = .02$) and devote more time to study ($\alpha = .03$). It appears also that students who have a greater number of failures are those who spend less time in their study ($\alpha = -.17$). The female students study more ($\alpha = .11$) and disapprove less ($\alpha = -.04$). These co-variances are only statistically significant in the relationships between sex and study time ($p < .01$), number of failures and study time ($p < .001$), number of failures and school goals ($p < .001$), and study time and school goals ($p < .01$).

Table 6. Covariance Structure of the Staining Results (Value and Estimated Error and Significance Level) Hypothesized for the Sample

Hypothesis	Values not standardized	Standardized values	Estimation error	<i>p</i>
H1 Gender → Efficacy Conflict Negotiation	.538	.16	.119	.000
H2 Grade → Efficacy Conflict Negotiation	.025	.02	.041	.547
H3 No. of Failures → Efficacy Conflict Negotiation	-.386	-.17	.080	.000
H4 Study Time → Efficacy Conflict Negotiation	.053	.19	.010	.000
H5 Goals → Efficacy Conflict Negotiation	.076	.04	.070	.274
H6 Efficacy Conflict Negotiation → Evaluation	.139	.36	.016	.000
Gender ↔ Grade	.023	.03	.024	.331
Gender ↔ No. of Failures	-.016	-.04	.013	.212
Gender ↔ Study Time	.325	.11	.100	.001
Gender ↔ Goals	.016	.04	.014	.280
Grade ↔ No. of failures	.023	.02	.036	.528
Grade ↔ Study Time	.223	.03	.281	.428
Grade ↔ Goals	.010	.01	.041	.814
No. of Failures ↔ Study Time	-.750	-.17	.153	.000
No. of Failures ↔ Goals	-.109	-.17	.022	.000
Study Time ↔ Goals	.477	.10	.170	.005

Square multiple correlations indicate that the variable Negotiation Efficacy is explained in 12% ($\eta^2 = .116$) and Evaluation in 13% ($\eta^2 = .127$), approximately. It is possible to observe the absence of parameters that have inadequate estimates, such as negative variance estimate errors or larger than unity (Byrne, 2001). We also verify the values of asymmetries and kurtosis.

Discussion

The results show that sex, number of failures, and study time have an influence on the students' negotiation efficacy, as well as on school results. There were no significant differences between negotiation effectiveness and school year and school goals. The results showed that the negotiation efficacy of conflicts at school is

higher in females than in males, revealing that female elements are more directed towards the creation of positive relationships with the other party and the maintenance of them and use more a collaborative style in negotiating, in order to reach an agreement through mutual concessions. In turn, male subjects tend to perceive opponents as being distinct from them and to maximize their results (Rahim & Katz, 2019).

The scarce existing literature that relates school conflict and negotiation efficacy has shown inconsistent results, with Lourenço and Paiva (2004) founding no statistically significant differences between sex and negotiation effectiveness, and Paiva and Lourenço (2011) observing the existence of sexual differences regarding negotiation effectiveness, namely girls scored more high in all dimensions of negotiation effectiveness.

The analysis of the perceptions that students have about conflict negotiation in schools in the five dimensions of SCNEQ highlight that, in the Firm-Flexibility Behavior dimension, the same try to be flexible people, not forgetting the main goals of negotiation, as well as present different alternatives to problem resolution in a way that allows them to achieve good results. However, there are 309 students (35.4%) that are found indifferent to participate in an active way in negotiation situations and 65 students (7.4%) disagree with the importance of this participation.

Considering the Negotiation Rationality dimension, students considered that to reach an agreement we never shall quit until we find a positive result to the problem and we must accept the opponent's alternatives with an open mind. On the other hand, we find a group of 113 students (12.9%) that indicates that they don't agree with the acceptance of the other's critiques and reveal interest in that to obtain a mutual agreement. With respect to Negotiating Climate dimension, it refers that making comfortable the opponents during the conflict resolution, as well as when the negotiation is in a stalemate, is essential to make a break and to talk about the subjects in a more informal setting. Despite this, there are 265 students (30.3%) that admit to be indifferent in valuing the opponent's ideas, behaviors and positive aspects and there is a more restricted group (N=66; 7.6%) that disagrees with this assumption.

Looking to the Constructive Solutions dimension, students agree that in a negotiation it is fundamental to work together to find common benefits to both parties and that, at the end of the conflict, it is important that parties obtain a joint agreement. However, 69 students (7.9%) disagree that to attain good results it is significant that none of the parties feel superior to the other and 219 respondents (25.1%) consider that is indifferent that, at the end of the conflict, it is indispensable to achieve a settlement between the parties. In the Negotiation Influence dimension, students reveal that usually, and according to Mastebroek (2013), when their antagonists don't accept a proposal, they don't menace to break negotiation, and also consider that to have a good negotiation we must reflect that the other party can be right. However, a group of 265 students (30.3%) refers that to achieve more from the opponent, it is relevant to demonstrate losing patience and 274 (31.4%) finds indifferent this matter.

The relevance conceded to efficient negotiation in school context is relatively recent, but the empirical data of different studies enhance the importance of its impact in the student's behavior comprehension. For this reason, SCNEQ can provide a significant contribution since it allows evaluating the opinions and attitudes of the

students, especially in the Portuguese context where there isn't any scale designed to evaluate the negotiation efficacy in any level of education. The present study has some limitations, such as the literature on the variables under study is still scarce; the instrument assesses students' perceptions of how they negotiate conflicts at school, but does not directly assess the negotiation process when the same happens; although the sample is numerically significant, it is not possible to generalize the results obtained for the school grades studied.

As possible suggestions for future research, it might be important to compare schools with different degrees of study, from different urban areas and also compare rural with urban areas, to incorporate other variables that can significantly influence the dependent variable (student negotiation efficacy), increasing the explained variance of the endogenous variables, and growing the comprehension of the complex negotiation process in educational context, for instance variables of the school context (e.g., school climate), and family variables (e.g., the academic or economical level of the parents) and individual variables of the students (e.g., conflict management styles). It also might be important to continue to research more about individual difference variables that could contribute to improve student's effective negotiation behaviors in schools.

Conclusion and Recommendations

The findings of this study about beneficial outcomes of school conflicts showed that disputes can enhance communication and interpersonal relationships as well as build cohesion among the students. Building peace in schools implies that one must have a large theoretical framework about conflict in that social context and that we also make reflections about possible strategies of constructive intervention in school conflict in its various manifestations (Coleman & Deutsch, 2001). In terms of practical implications, since managing a conflict in an adaptive manner supposes negotiate with efficacy, it is pertinent to increase student abilities in a sense that these recognize the interventions that allows mutual gains maximization, that's to say, to know the mechanisms that facilitate obtaining an efficient result in a negotiation process. If managed effectively, conflict can revert to the personal development of those involved and the school, showing that problem solving is an adequate strategy, whenever possible, to resolve disputes and controversies. Thus, it can be seen how conflict has not only negative results, but also positive ones for the development of everyone involved in the school.

References

- Arbuckle, J. L. (2012). *IBM SPSS AMOS 21 User's Guide*. Chicago: Smallwaters Corporation.
- Brandoni, F., (2017). *Conflictos en la escuela. Manual de negociación y mediación para docentes*. Buenos Aires: EDUNTREF.
- Byrne, B. M. (2001). *Structural Equation Modelling with AMOS – Basic Concepts, Applications, and Programming*. New Jersey: Lawrence Erlbaum.
- Coleman, P. T., & Deutsch, M. (2001). Introducing Cooperation and Conflict Resolution in Schools: A Systems Approach. In D. Christie, R. V. Wagner, and D. Winter (eds.), *Peace, Conflict, and Violence: Peace Psychology for the 21st Century* (pp.223-239) Englewood Cliffs: Prentice Hall.
- Cunha, P. & Monteiro, A. P. (2016). Uma reflexão sobre a Mediação Escolar. *Ciências e Cognição*, 21 (1), 112-123.


- Cunha, P., Lourenço, A. A., Paiva, M. O. A. & Monteiro, A. P. (2016). Validation of the School Conflict Negotiation Effectiveness Questionnaire. *Journal of Psychoeducational Assessment*, 1-8. <http://dx.doi.org/10.1177/0734282916662422>
- Cunha, P., Monteiro, A. P., Lourenço, A. A. & Paiva, M. O. (2016). Eficácia negocial, autoconceito e variáveis sociodemográficas: estudo em contexto escolar. *Revista Argentina de Ciencias del Comportamiento*, 8 (3), 20-29.
- Curran, P. J., West, S. G., & Finch, J. F. (1996). The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis. *Psychological Methods*, 1, 16–29. <http://dx.doi.org/10.1037/1082-989X.9.4.466>
- Fisher, R., Kopelman, A. K., & Schneider, A. K. (1996). *Beyond Machiavelli: Tools for Coping with Conflict* (2th ed.). Cambridge: Harvard University Press.
- Galtung, J. (2000). *Conflict transformation by peaceful means (the Transcend Method)*. New York: United Nations Disaster Management Program.
- Lourenço, A. A. & Paiva, M. O. (2004). Negociação de conflitos em contexto escolar. *Psicologia, Educação e Cultura*, 8(1), 121-14.
- Lowe, B., Winzar, H., & Ward, S. (2007). *Essentials of SPSS for Windows versions 14 & 15: a business approach*. Melbourne: Thomson Learning Australia.
- Luna-Bernal, A., Mejía-Ceballos J., & Laca-Arocena, F. (2017). Conflictos entre pares en el aula y estilos de manejo de conflictos en estudiantes de bachillerato. *Revista Evaluar*, 17(1), 50-64. <http://dx.doi.org/10.35670/1667-4545.v17.n1.17074>
- Manesis, N., Vlachou, E., & Mitropoulou, F. (2019). Greek teachers' perceptions about the types and the consequences of conflicts within school context. *European Journal of Educational Research*, 8(3), 781-799. <https://dx.doi.org/10.12973/eu-jer.8.3.781>
- Marôco, J. (2007). *Análise estatística com utilização do SPSS (3ª Ed.)*. Lisboa: Sílabo.
- Mastenbroek, M. (2013). Development of negotiation skills. In V. A. Kremenyuk (Ed.). *International Negotiation: Analysis, Approaches, Issues* (2nd Edition). San Francisco: Jossey-Bass.
- Özgan, H. (2016). The usage of domination strategies in conflicts between the teachers and students: A case study. *Educational Research and Reviews*, 11(4), 146-152. <https://dx.doi.org/10.587/ERR2015.2542>
- Pérez-Yus, M. C., Ayllón-Negrillo, E., Delsignore, G., Magallón-Botaya, R., Aguilar-Latorre, A., & Oliván Blázquez, B. (2020). Variables Associated with Negotiation Effectiveness: The Role of Mindfulness. *Frontiers in Psychology*, 11, 1214. <https://dx.doi.org/10.3389/fpsyg.2020.01214>
- Paiva, M. O., & Lourenço, A. A. (2011). Estudo empírico sobre a eficácia negocial de conflitos em ambiente escolar. *Ciências & Cognição*, 16(3), 151-166.
- Pruitt, D. G., & Carnevale, P. J. (2003). *Negotiation in social conflict*. (2th ed.). Buckingham: Open University Press.
- Rahim, M. A. (2011). *Managing conflict in organizations* (4th ed.). New Brunswick: Transaction Publishers.
- Rahim, M., & Katz, J. (2019). Forty years of conflict: the effects of gender and generation on conflict-management strategies. *International Journal of Conflict Management*, 31 (1), 1-16. <https://dx.doi.org/10.1108/IJCMA-03-2019-0045>
- Shahmohammadi, N. (2014). Conflict management among secondary school students. *Procedia - Social and*

Behavioral Sciences, 159, 630 – 635. <https://dx.doi.org/10.1016/j.sbspro.2014.12.438>

Torrego, J. S., Gómez, M. P. & Negro, A. M. (2007). *Los conflictos en el ámbito educativo: aportaciones para una cultura de paz*. Cideal: Madrid.

Author Information

Pedro Cunha

 <https://orcid.org/0000-0003-3219-4543>

Faculty of Human and Social Sciences of University


Fernando Pessoa, Praça 9 de Abril, 349

4249-004 Porto

Portugal

Contact e-mail: pcunha@ufp.edu.pt

Maria Olímpia Paiva


 <https://orcid.org/0000-0001-6740-9108>

Agrupamento de Escolas Alexandre Herculano

Av. Camilo, 4300-096, Porto

Portugal

Ana Paula Monteiro

 <https://orcid.org/0000-0002-4082-1474>

University of Trás-os-Montes and Alto Douro

Edifício do Pólo I da ECHS, Quinta de Prados

5000-801 Vila Real

Portugal
