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Research article

Relationship of Cooperative or Competitive University Climate with the Positive Creativity in Russian Students

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Abstract. Creativity is one of the key competences that educational organizations should foster in their students. Considering the valence of creative ideas and their consequences, this study examines the relationship between cooperation and competition as aspects of university climate with students' positive creativity. A quantitative cross-sectional study was conducted on a sample of 341 Russian students (54.8% — females) using PISA's measurement of cooperation and competition and the task from "Test of realistic problem situations," adapted to measure positive creativity in a university context. The results showed that there is no significant relationship between cooperative climate and positive creativity, whereas a competitive climate contributes to students' positive creativity. The discussion explores consequences of the cooperative and competitive climates in a broader perspective as well as the specific characteristics of everyday positive creativity in a social domain. Overall, the study suggests that competitive climate can lead to more pronounced positive social creativity, probably as a defensive strategy.

Key words: creativity, positive creativity, university climate, cooperation, competition, university students

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Introduction

Creativity, realized in original and useful ideas, solutions, or products (Batey, 2012; Sternberg & Lubart, 1999), is not limited to art or technology only. It can manifest itself and, moreover, becomes important in almost any field of human life (Benedek et al., 2021). Depending on the goal of the creative ideas, they can be categorized as neutral, negative, or positive (Beghetto & Anderson, 2022; Gao et al., 2022; Kapoor & Khan, 2017; Schei, 2013). Negative or malevolent creative ideas are intended to oneself or others in an innovative way. In contrast, the intention or goal to improve the world and its society can be the main factor for considering a creative idea as positive, although, within the sociocultural context, this goal may be very subjective (Sternberg & Chowkase, 2021). From this perspective, positive creativity specifically is an essential skill that should be included in higher education training.

Lecturers' curricular commitments and responsibilities can provide the students with the opportunity to learn how to develop their creativity with wisdom and how to assess positive outcomes for the betterment of the world (Beghetto & Anderson, 2022; Sternberg & Karami, 2021). Wang and Deng (2022) explain that in addition to the type of goal setting, affective traits such as risk-taking, curiosity, imagination, and complexity (i.e., the development of solutions for complex problems) are significant factors related to novel positive ideas. Moreover, they suggest that positive and creative ideas can be learned through analogical reasoning. Therefore, in order to teach positive creativity, teachers must focus on students' affective traits. Doing so can help students set goals for identifying important needs and, thus, be able to enhance their purposes with the creation of novel ideas. This can be done in multiple ways.

First, different classroom activities like small group discussions, role plays, scenario-based case studies, and Socratic seminars can be used in order to support students to generate positive and innovative ideas. Furthermore, understanding the context of real-world problems is another technique that can help students to develop positive creative thinking in their learning process (Sternberg & Chowkase, 2021; Sternberg & Karami, 2021). However, it is not only teaching techniques or teacher–student relationships that matter; from a broader perspective, the organizational (specifically university) climate also plays a significant role.

The educational organization climate refers to perceptions of the learning environment. In a more detailed consideration, university (campus) climate describes an interplay of relationships, norms, values, learning and teaching practices, perceptions, and expectations shared in a particular academic community (Maxwell et al., 2017; Thapa et al., 2013; Vaccaro, 2010). It is important to note that university climate is manageable, as it is a closed environment that can be modified in order to achieve educational and social goals.

The university climate addresses students' positive creativity in multiple ways. First, a positive and intentionally structured climate predicts students' creativity in general (Burkšaitienė, 2018; Gao et al., 2020). Second, a positive climate is directly related to students' motivation and affective needs. It helps them

develop a positive self-concept and attachment to their place of study (Koran, 1989); it also fosters students' engagement at local activities and supports their well-being (Lombardi et al., 2019). A positive socially oriented climate may stimulate students' autonomous motivation and prosocial and pro-environmental behavior (Luengo Kanacri et al., 2017; Manzano-Sánchez et al., 2021; Waring et al., 2016).

All educational organizations strive to establish a positive climate in order to achieve their goals and foster their students' skills and competencies, including positive creativity. However, this can be done in different ways. The school or university climate is a multidimensional construct that represents different spheres of students' experience (Wang & Degol, 2016). Previous research has primarily focused on four big domains: perceived safety, teaching and learning, community, and institutional environment (OECD, 2019). This study considers two important aspects of a community domain of perceived university climate, namely perceived cooperation and perceived competition. These factors can be particularly influential, especially considering that teaching on introductory-level courses of the university highlights and primes individual achievements and discourages collaboration (Shapiro & Sax, 2011).

Cooperation and competition are two basic ways of interaction in interpersonal and intergroup relations. Cooperation is characterized by helping and trusting each other, communicating, and working together to achieve a common goal, while competition involves the pursuit of primarily individual at the expense of the well-being and goals of others (De Dreu, 2010). Accordingly, a cooperative climate refers to situations when a person perceives the relationship within an organization as cooperative, while the goals and rewards of different people are aligned (Zhao et al., 2016). On the contrary, a competitive climate exists in organizations where the relationships are competitive, while the goals and rewards depend on a comparison of performance against others (Arnold et al., 2000; Brown et al., 1998).

There is a lack of studies considering the effects of cooperative or competitive university climate on positive creativity. Existing works considered creativity in general without addressing its valence. Moreover, much of this research has been conducted in a business context, which differs from the university climate in terms of power distribution. The results obtained can be called somewhat contradictory: some of the studies found positive effects of cooperative climate on creativity (Zhu et al., 2018); others underlined the importance of competitive climate or its elements over the cooperative climate (Zhao et al., 2016). Therefore, this study aims to investigate the relationship between university cooperative and competitive climate and the positive creativity of students. To address this aim and establish a theoretical foundation, we examine two core components of the positive creativity construct in relation to cooperation and competition: creativity as the generation of novel and useful ideas, and benevolent, prosocial intention as a necessary feature of positive creativity.

A fairly large number of scientific papers consider the relationship of competition and cooperation with creativity in general. Basically, they found a positive effect of a cooperation and cooperative climate on creativity, both group

and individual creativity (Catarino et al., 2019; Clydesdale, 2006; Lu et al., 2019; Mayseless et al., 2018). In the university environment, cooperation has also been identified as a significant positive predictor of students' creativity (Ogrutan et al., 2019). The positive effects of cooperation on creativity can be explained by an increase in sensitivity to information coming from others (Johnson & Johnson, 1989). Cooperation stimulates holistic thinking and analysis of conflicting information (Carnevale & Probst, 1998) and initiates critical thinking leading to a deeper processing of information (Fung & Howe, 2012). At the same time, mixed results have been found regarding the relationship between competition and creativity. On the one hand, participation in competitions or intra-team contests can promote creativity (Bradler et al., 2016; Prabhu et al., 2020); however, only in situations where the abilities of rivals are perceived as approximately equal (Gross, 2020). The positive effect of competition is determined by desire for team approval and the promotion of one's own ideas (Pearsall & Venkataramani, 2015), as well as by an intergroup competition, which, in turn, leads to intragroup cooperation (Baer et al., 2010). Another explanation highlights the motivation to earn rewards or avoid criticism, which increases engagement and the willingness to learn (Białkiewicz, 2020; Ge et al., 2020).

On the other hand, a number of studies demonstrate a negative relationship between competition and creativity (Erat & Gneezy, 2016; Mcglynn et al., 1982). Competition can hinder creativity due to the fact that it is associated with greater egocentrism (Johnson & Johnson, 1989) and a reduced willingness to consider others' perspectives (Nijstad & De Dreu, 2012). Competition interferes with the search for compromise with those whose ideas contradict one's own (Sommet et al., 2014) and leads to shallower information processing (Carnevale & Probst, 1998; Förster & Higgins, 2005) and preventive focus (Bittner & Heidemeier, 2013).

A widely accepted premise within the field is that prosocial motivations are positively correlated with cooperative behavior (Capraro et al., 2014). Several studies have shown that altruism and affective perspective taking can be stimulated via cooperative learning (Choi et al., 2011) or even cooperative priming in video games (Gentile et al., 2009) or instructions (Johnson et al., 1976). Positive effects of cooperation on benevolent intentions and behavior can be explained by its focus on achieving common goals, which is associated with a preference for interactions that are most beneficial for all participants (Fehr & Krajbich, 2014) and promotion of friendly relationships (Roseth et al., 2008). By contrast, the relationship of competition with prosociality is often described in negative terms (Duffy & Cornienko, 2010).

Competition is associated with unethical behavior (Hegarty & Sims, 1978; Cai et al., 2006) and decreased empathy (Cikara et al., 2014). Participation in contests leads to reduced subsequent prosociality (Moyal & Ritov, 2020).

Based on the theoretical assumptions above, several conclusions can be drawn. First, one can expect that cooperation and, consequently, a cooperative climate both contribute to creative thinking and prosocial intentions. Therefore, we can hypothesize that the cooperative university climate positively relates to the positive creativity of students (hypothesis 1). We can't make a similar assumption

regarding competition. Indeed, previous studies support the idea of negative relations between competition and prosocial intentions. However, it seems like competition can have diverse effects on creativity depending on the situation or the context. The context of the educational organization, e.g., university, has its own specificity in comparison to work teams in business organizations. Consequently, the role of competitive climate should be clarified in the university context. We state an additional research question on what the relationship between competitive university climate and students' creativity is.

Methods

Initially, ***the sample*** consisted of 360 respondents; however, 19 of them were excluded from the final analysis due to a large number of missing answers. The final sample of the study consisted of 341 respondents — Russian students from 18 to 45 years old (33.7 % of respondents under 20 years old; 87.4 % of respondents under 30 years old); the average age is 23.37 years. The sample is balanced by gender (54.8 % of the sample indicated to be women), level of education (57.8 % — bachelors), and field of study (technical areas of study: 12.6 %, natural sciences: 17 %, humanitarian areas of study: 21.1 %, social sciences: 25.5 %, economic and legal areas of study: 19.6 %, creative areas of study: 4.1 %). Despite the fact that the sample included students from more than seventy universities from 42 cities of the Russian Federation, among them 36.6 % of respondents are students of universities in Moscow and St. Petersburg.

This quantitative study had a ***cross-sectional, one-sample design*** and was implemented in the form of a socio-psychological survey. A non-probability convenient sampling technique was used. The survey questionnaire was posted on the anketolog.ru Internet platform. Completion of the questionnaire began with the request for informed consent on a form and filtering questions regarding being a student. Further, the respondents answered the questions about cooperation and competition climate in their universities. This was followed by the creativity task. Finally, respondents answered questions about their socio-demographic characteristics (gender, age, university, field of study, city). The average time it took respondents to complete the questionnaire was 12 minutes. Provided that the questionnaire was completed fully, the respondents received a small monetary reward.

All ***the instruments*** used in the study were translated into Russian following the procedure of forward-backward translation. Subsequently, they were adapted during the pre-test, which included cognitive interviews with 7 respondents in accordance with think-aloud technique. The Russian versions of the instruments are provided in the Appendix.

Perceived cooperative university climate and competitive university climate were treated as independent variables for further analysis. They were measured using of OECD's Programme for International Student Assessment methodology to assess cooperation and competition as aspects of the school climate (OESD, 2019). Minor modifications were made (in Russian translation) in order to adapt the items

to the university context and to improve clarity. Specifically, students were asked to rate their agreement with a series of statements about their university using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). Sample items included: "Students feel that they are encouraged to cooperate with others" for the cooperative climate, and "Students feel that they are being compared with others'' for the competitive climate. Both scales had a high reliability, so means were calculated for further analysis (Table 1). In order to state construct validity, we performed Confirmatory Factor Analysis — model fit was acceptable (CMIN/df = 2.71, CFI = 0.96, RMSEA = 0.07, SRMR = 0.03), all factor weights were significant (at $p < 0.01$) and higher then 0.72. Convergent validity was assessed using Sishor's Group Cohesion Index (Fetiskin et al., 2005). As expected, the perception of university community as coherent was positively correlated with cooperative climate ($r = 0.47$, $p < 0.01$) and negatively correlated with competitive climate on the tendency level ($r = –0.12$, $p = 0.07$).

We considered *positive creativity* as a dependent variable in this study. It was operationalized through participants' responses involving positive solutions to a task measuring social creativity. Social creativity was selected as it contributes to a more successful adaptation to the social context and the implementation of new patterns of behavior when solving problems in social interactions (Meshkova & Enikolopov, 2016). In particular, we adapted one of the tasks from the Test of realistic problem situations which was a part of a test battery for creative thinking by M. Runco. Respondents were asked to generate solutions to the following scenario:

> "Imagine that a new student has recently joined your study group. Lately, your academic workload has been so heavy that you haven't had any free time to talk to him, although you would like to. Your friends have told you that he is a very interesting and creative person. Today, you have some free time between classes, so you go to the canteen. You see the new student standing alone and reading the menu; he clearly isn't busy. This is a great opportunity to introduce yourself, and you want to make a good impression on him. What would you do?"

The approach used to assess participants' responses combined a theoretical understanding of creativity — as the generation of novel and useful ideas — with the Consensual Assessment Technique (Baer & McKool, 2009). Two independent raters evaluated each response based on three criteria: originality, relevance, and positivity of the solution. Each criterion was rated on a 5-point scale, ranging from 1 (the characteristic is not present at all) to 5 (the characteristic is extremely pronounced). For each of the criteria, a short definition was presented by the researchers. If several answers were given, each of the answers were assessed, and then mean score was used in the final protocol. Both raters had expertise in social psychology and over five years of experience working with students in both formal settings (e.g. lectures and seminars), as well as informal contexts (e.g. clarifications during orientation week, trainings of intercultural competence, work on non-curricular activities in order to stimulate communication among students and their engagement). Therefore, they can be considered as experts for this particular assessment task. Inter-rater reliability was high across all three criteria. The final

positive creativity index was the mean of the three criteria (Table 1). To further validate this measure, we correlated the positive creativity index with a self-assessed measure of creativity. Following previous research (Pavlova, 2018), the evaluation of the one's own ability to generate new ideas was conducted using a single question. The results of correlation analysis revealed a positive relationship between two measures ($r = 0.36$, $p < 0.01$).

Data processing was conducted in SPSS (ver. 22). First, confirmatory factor analysis for university climate scale was conducted, next descriptive statistics, correlations and reliability coefficients were calculated. Next, in order to answer the research question about the relationship between the cooperative climate and competitive climate with positive creativity, linear regression analysis was performed.

Results

Descriptive statistics analysis (Table 1) showed that the respondents tended to generate moderately creative solutions (considering that the scale was 1–5). Applying a t-test for paired samples, we identified significant differences for three indicators of creativity. Participants provided responses that were significantly more original than relevant ($t = 3.82$, $p < 0.01$) or positive ($t = 9.72$, $p < 0.01$) answers; positivity was also less represented than relevance ($t = 7.54$, $p < 0.01$). Respondents assessed both the cooperative and competitive aspects of their university climate as highly pronounced in their universities. However, the t-test for paired samples had shown that they perceived the climate of their universities to be more cooperative than competitive ($t = 6.24$; $p < 0.01$). Both perceived cooperative and competitive climates were positively correlated with creativity, though strength of the relationship was different. Age and gender were not related to any of the studied constructs, so they were excluded from further analysis after being controlled at this stage.

Based on the results of the multiple linear regression analysis (Table 2), we made a conclusion about the positive relationship between the perceived competitive university climate and students' positive creativity. In contrast, there was no significant relationship between the perceived cooperative university climate and students' positive creativity Although the association was positive, it was weak and only approached significance (p = .09).

Table 1

Descriptive Statistics, Reliability and Correlations for the Constructs

Constructs	M (SD)	Reliability	1	1.1	1.2	1.3	2	3
1. Positive creativity	2.72 (0.83)	0.89	1	0.88**	0.89**	0.89**	0.23*	0.48**
1.1. Originality	2.94 (0.99)	0.78	—	—	0.74**	0.71**	0.20*	0.43**
1.2. Relevance	2.79 (0.91)	0.83	—	—	—	0.78**	0.02*	0.42**
1.3. Positivity	2.55 (0.97)	0.70	—	—	—	—	0.20*	0.45**
2. Cooperative climate	4.83 (1.24)	0.87	—	—	—	—	—	0.33*
3. Competitive climate	4.34 (1.24)	0.79	—	—	—	—	—	—
Age	23.37 (5.39)	—	–0.01	0.01	–0.03	0.01	0.01	0.08
Gender	0.55 (0.49)	—	0.02	0.01	0.03	–0.03	–0.03	–0.06

* – $p < 0.05$; ** – $p < 0.01$

Reliability was measured differently for different constructs. We used Cronbach's alpha for Positive creativity, Cooperative climate and Competitive climate, while, for Originality, Relevance and Positivity inter-rater reliability was measured using correlations of ratings of two experts. Gender was coded as 0 (male) and 1 (female).

Table 2

The Relationship between Cooperative and Competitive Climate with Positive Creativity

Outcomes	Predictors	
	Cooperative climate (β)	Competitive climate (β)
Positive creativity	0.09	0.46**
R^2	0.24	
F	54.53**	
Cohen's f^2	0.32	

** – $p < 0.01$.

Discussion

The current study was aimed at investigating the relationship between the perceived university climate and the positive creativity of students. The study revealed no significant relationship between university cooperative climate and positive creativity (rejecting our hypothesis), while competitive university climate turned out to be significantly positively associated with students' positive creativity.

On the one hand, the obtained results contradict findings from previous studies, at least with regard to the cooperative climate. Indeed, the teams' cooperative climate was conducive to the creativity of its members (Zhu et al., 2018). At an organizational level, the cooperative climate was a positive predictor of knowledge transfer and creativity (Carmeli et al., 2015; Lee et al., 2021). However, most of these studies focused on general creativity, rather than on positive creativity, which also includes a benevolent or prosocial component. One of the mechanisms by which a cooperative climate may promote specifically positive creativity is through learning. When individuals see witness others interacting in cooperative and creative ways, the positive creative goals may become contagious and form further motivations and behaviors. That idea is in line with the social learning theory of Bandura (1977). Nonetheless, researchers found that prosocial goals are actually not "contagious". After observing prosocial behavior (that is, for sure, closely associated with a cooperative climate), people do not become more supportive of prosocial goals (Brohmer et al., 2019).

Moreover, cooperation does not necessarily motivate individuals to display additional proactivity. In a context of harmonious cooperative climate, students may perceive that their actions do not require special initiative or originality, given the already supportive and friendly environment. This phenomenon can be explained by the social loafing hypothesis (Karau & Williams, 1993). Applied to our context, we can suppose that when tasks are socially oriented, students within highly cooperative environments may expect others to assume greater initiative and responsibility in communication as well.

As for competition and competitive climate, numerous studies have highlighted their negative effects on creativity (Erat & Gneezy, 2016; Mcglynn et al., 1982). At the same time, the competitive climate may contribute both to creativity and positive prosocial intentions under favorable conditions. For example, the competitive climate may lead to positive creative solutions when it is perceived as a stimulus for positive change (Arnold et al., 2000) or when we are speaking about instrumental helping motives and prosociality based on expectations of mutuality (David et al., 2021). It is important to consider the specific context and nature of the task. The university climate—whether cooperative or competitive—creates distinct psychological and social settings for tackling creative problems. These differences in the initial conditions may influence the motivation of students to solve the task and, hence, the level of creativity of the proposed solution.

Therefore, the revealed differences in the relationships of the university cooperative and competitive climate with positive creativity may be explained, firstly, with the type of the task. The suggested task in this particular study was related to social creativity — to approach a newcomer and initiate contact. The purpose of the same task may be perceived differently in cooperative and competitive settings. In cooperative settings, the purpose of initiating contact with a newcomer may represent the general wish to behave friendly and welcoming, which is in line with the cooperative climate of trust and help in the organization. Conversely in a competitive environment, there is a need to find potential collaborators, so initiating contact with newcomers might bring additional benefits, like somebody to unite with for successful competition with the others. In competitive settings, this creates motivation to search for the best, most useful solution on how to make an impression on the newcomer and to be able to establish a potentially successful contact, while in a cooperative climate, meeting a new person may not have such additional motivation. Therefore, in a competitive climate, positive social creativity may serve as a means to fulfill instrumental helping motives.

It is worth mentioning also, that social comparisons, inevitable in a competitive university climate, make the question of belonging to a certain group especially acute (Baldwin, 2009; Posselt & Lipson, 2016; Seymour, 2002; Wasburn & Miller, 2004). Supportive positive communication in a competitive environment encourages a sense of belonging and helps to resolve the problem of finding one's own social identity (Hurtado et al., 2011; Hyde & Gess-Newsome, 2000; Kahveci et al., 2008), especially among women. This suggests that positive social creativity may be desirable and serve as an important mechanism of coping with a competitive climate.

Creativity can serve not only as a means of problem-solving but also as a tool for self-protection. Positive creativity — aimed at helping others and improving the social environment — may be perceived by students as a mean to demonstrate their value and uniqueness, thereby protecting their social status and psychological well-being. Indeed, prosocial orientation has been shown to strengthen the link between intrinsic motivation and creativity (Grant & Berry, 2011). Additionally, the idea of protective altruism (Yamagishi & Yamagishi, 1994) suggests in conditions of high social uncertainty, individuals may display elevated levels of cooperative and helpful behavior to build a reputation for reliability and foster stable, trusting relationships. Given its prosocial orientation, positive creativity may help students

cope with the challenges of a competitive climate by forming alliances rather than distancing themselves from peers.

To conclude, in cooperative university settings, there is no need to demonstrate a high positivity level of the proposed solution; it might only contain simple help or advice. On the contrary, in competitive settings, adding a more serious prosocial element to the acquaintance (serious help, extensive support, time investments) will increase the chances to find beneficial contacts for possible future cooperation and, therefore, increase one's own competitive ability and to fulfill the need of belonging. This might explain the positive relationship between a competitive climate and positive creativity, and no such relationship exists for a cooperative climate.

Another explanation for the observed relationship between the university climate and positive creativity addresses the difference in perception of the goals of the task that was set up in different settings. In a competitive climate, people are focused on achieving individual goals, and their rewards depend on individual performance (Arnold et al., 2000). When the task is set up in a competitive climate, it is taken as an individual task — part of the competition. In this case, the search for a creative solution is aimed at coming up with more creative, more complex ideas that will distinguish this solution from others. A high positivity level marks the best solutions. In cooperative settings, the focus is on working together to achieve a common goal (Zhao et al., 2016). The same task on social creativity, set up in a cooperative climate, may be viewed as a part of a group task aimed at maintaining a general cooperative climate. In this case, initiating contact with a newcomer is a way to make him simply join the cooperative environment, with its atmosphere of trust and support. Therefore, there is no need for additional individual prosocial initiatives because the cooperative climate itself creates settings that are prosocial enough. In other words, a cooperative climate is able to take part of individual responsibility for prosocial initiatives from people, while in a competitive climate, prosocial activity remains individual responsibility for positive change directed towards individual goals. This might explain the positive relationship between a competitive climate and positive creativity and no such relationship for a cooperative climate.

Finally, a few situations can be considered "purely" competitive or cooperative. More commonly, we mainly see different combinations of these two. According to PISA data for 2018, cooperation and competition (as elements of the school climate) are expressed at almost the same level in Russian schools (OECD, 2019). This can be especially important in addressing the socio-cultural context of the study. Russian culture is, in essence, collectivist (Hofstede, 2011), but is acquiring more and more elements of individualism (Naumov & Puffer, 2000). This leads us to the assumption that probably we addressed a "not purely competitive" climate but a mix of competition and cooperation, due to cultural characteristics. Studies show that the "coopetition" environment is the most effective one in terms of creative idea generation in comparison with purely cooperative or purely competitive environments (Zhao et al., 2016). Student assignments, channels of communication, and the general climate of the university that present the interplay between intragroup cooperation and intergroup competition would help to find the balance between individual and group goals and, therefore, turn into an ideal learning platform for developing the positive creativity of students.

Although this study has contributed to identifying novel findings and deepening the understanding of the relationship between university climate — specifically cooperation and competition — and creativity, it is not without ***limitations***, which should be addressed in future research.

First, this particular study operationalized positive creativity as benevolent social creativity in the everyday communication of students. More specifically, the communication aspect itself was narrowed down to the first contact initiation and impression management. Generally speaking, that's rather a limited focus that considered only "small creativity" (Kaufman & Beghetto, 2009), while the positivity aspect was mainly focused only on the influence on a particular individual, not society in general. As creativity might be represented in various ways and should be trained differently for different domains (Baer, 2012), it can be useful in future studies to consider a more society-oriented side of positive creativity (e.g., in the form of a contest of some innovative solutions to particular challenges) in relation to the cooperative and competitive climate of the university.

Next, it is important to acknowledge that the climate of any educational organization is a multidimensional construct (Wang & Degol, 2016). Previous studies have already addressed some elements of them, like teaching practices (Sternberg & Chowkase, 2021; Sternberg & Karami, 2021). This research contributed to the pool of existing studies, taking into account cooperation and competition aspects. However, other dimensions, such as perceived safety or the institutional enviro althoughment, can also be studied as pre-requisites of positive creativity. Furthermore, we can recommend investigating the system of interrelated dimensions altogether and checking for their cumulative effects on creativity.

Finally, though the results obtained are significant and the effect size is moderate (Cohen, 1988), still there are additional factors that should be taken into consideration in order to explain the variance of positive creativity among students. As suggested by Lewin's classic equation the behavior depends both on personality and environment (Lewin, 1936). Therefore, in future studies, one should extend not only the operationalization of the climate but also include some individual socio-psychological factors in a model. Generally speaking, social value orientations, individual values, or altruism seem to be promising, as they proved to be directly related to both creativity and prosociality (Dollinger et al., 2007; Lin et al., 2023; Murphy & Ackermann, 2014; Schwartz, 2010; Yan, 2019), as well as probably individual attitudes to competition and cooperation.

Conclusion

This study identified a positive relationship between the competitive university climate and the positive creativity of students. Taking into account the context, limitations, and interpretation of the study results, we suggest considering the potential of both cooperation and competition in order to use the benefits of the university climate for teaching positive creativity to students. Each fulfills students' affective and motivational needs in different ways and may stimulate creativity in various ways.

The practical significance of these findings lies in clarifying the role of a competitive university climate as a potential resource for fostering positive, prosocial creativity — in particular, creativity directed toward peers and the broader student community. A moderate level of competitiveness, typical of university settings, may not only drive individual achievement but also encourage students to initiate community-oriented improvements, enhance group adaptability, and strengthen cohesion. This challenges the conventional view of competition as solely negative and highlights the importance of intentionally shaping an educational environment in which constructive competition is thoughtfully combined with cooperative elements and teaching practices. Such an integrated approach is likely to be most effective in cultivating positive student creativity.

References

Arnold, J.A., Arad, S., Rhoades, J.A., & Drasgow, F. (2000). The empowering leadership questionnaire: The construction and validation of a new scale for measuring leader behaviors. *Journal of Organizational Behavior, 21*(3), 249–269. https://doi.org/10.1002/(SICI)1099-1379(200005)21:3<249::AID-JOB10>3.0.CO;2-%23

Baer, J. (2012). Domain specificity and the limits of creativity theory. *The Journal of Creative Behavior, 46*(1), 16–29. https://doi.org/10.1002/jocb.002

Baer, J., & McKool, S.S. (2009). Assessing creativity using the consensual assessment technique. In C.S. Schreiner (Ed.), *Handbook of research on assessment technologies, methods, and applications in higher education* (pp. 65–77). Hershey, PA: IGI Global Scientific Publishing. https://doi.org/10.4018/978-1-60566-667-9.ch004

Baer, M., Leenders, R. Th.A.J., Oldham, G.R., & Vadera, A.K. (2010). Win or lose the battle for creativity: The power and perils of intergroup competition. *Academy of Management Journal, 53*(4), 827–845. https://doi.org/10.5465/amj.2010.52814611

Baldwin, R.G. (2009). The climate for undergraduate teaching and learning in STEM fields. *New Directions for Teaching and Learning, 2009*(117), 9–17. https://doi.org/10.1002/tl.340

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.

Batey, M. (2012). The measurement of creativity: From definitional consensus to the introduction of a new heuristic framework. *Creativity Research Journal, 24*(1), 55–65. https://doi.org/10.1080/10400419.2012.649181

Beghetto, R.A., & Anderson, R.C. (2022). Positive creativity is principled creativity. *Education Sciences, 12*(3), 184. https://doi.org/10.3390/educsci12030184

Benedek, M., Karstendiek, M., Ceh, S.M., Grabner, R.H., Krammer, G., Lebuda, I., Silvia, P.J., Cotter, K.N., Li, Y., Hu, W., Martskvishvili, K., & Kaufman, J.C. (2021). Creativity myths: Prevalence and correlates of misconceptions on creativity. *Personality and Individual Differences, 182*, 111068. https://doi.org/10.1016/j.paid.2021.111068

Białkiewicz, A. (2020). Architectural competitions support student creativity. *World Transactions on Engineering and Technology Education*, *18*(2), 157–162.

Bittner, J.V., & Heidemeier, H. (2013). Competitive mindsets, creativity, and the role of regulatory focus. *Thinking Skills and Creativity, 9*, 59–68. https://doi.org/10.1016/j.tsc.2013.03.003

Bradler, C., Neckermann, S., & Warnke, A.J. (2016). Incentivizing creativity: A large-scale experiment with tournaments and gifts. *Tinbergen Institute Discussion Paper 16-035/VII*. https://doi.org/10.2139/ssrn.2772526

Brohmer, H., Fauler, A., Floto, C., Athenstaedt, U., Kedia, G., Eckerstorfer, L.V., & Corcoran, K. (2019). Inspired to lend a hand? Attempts to elicit prosocial behavior through goal contagion. *Frontiers in Psychology, 10*, 545. https://doi.org/10.3389/fpsyg.2019.00545

Brown, S.P., Cron, W.L., & Slocum, J.W. (1998). Effects of trait competitiveness and perceived intraorganizational competition on salesperson goal setting and performance. *Journal of Marketing, 62*(4), 88–98. https://doi.org/10.1177/002224299806200407

Burkšaitienė, N. (2018). How can university learning environment contribute to students' creativity? Lithuanian students' perspective. *Creativity Studies, 11*(1), 162–171. https://doi.org/10.3846/cs.2018.271

Cai, H.B., Liu, Q., & Xiao, G. (2005). *Does competition encourage unethical behavior? The case of corporate profit hiding in China*. *SSRN*. Retrieved January 12, 2025, from https://ssrn.com/abstract=676183

Capraro, V., Smyth, C., Mylona, K., & Niblo, G. A. (2014). Benevolent characteristics promote cooperative behaviour among humans. *PLoS ONE, 9*(8), e102881. https://doi.org/10.1371/journal.pone.0102881

Carmeli, A., Dutton, J.E., & Hardin, A.E. (2015). Respect as an engine for new ideas: Linking respectful engagement, relational information processing and creativity among employees and teams. *Human Relations, 68*(6), 1021–1047. https://doi.org/10.1177/0018726714550256

Carnevale, P.J., & Probst, T.M. (1998). Social values and social conflict in creative problem solving and categorization. *Journal of Personality and Social Psychology, 74*(5), 1300–1309. https://doi.org/10.1037/0022-3514.74.5.1300

Catarino, P., Vasco, P., Lopes, J., Silva, H., & Morais, E. (2019). Cooperative learning on promoting creative thinking and mathematical creativity in higher education. *REICE. Revista Iberoamericana Sobre Calidad, Eficacia y Cambio En Educación, 17*(3). https://doi.org/10.15366/reice2019.17.3.001

Choi, J., Johnson, D.W., & Johnson, R. (2011). Relationships among cooperative learning experiences, social interdependence, children's aggression, victimization, and prosocial behaviors. *Journal of Applied Social Psychology, 41*(4), 976–1003. https://doi.org/10.1111/j.1559-1816.2011.00744.x

Cikara, M., Bruneau, E., Van Bavel, J.J., & Saxe, R. (2014). Their pain gives us pleasure: How intergroup dynamics shape empathic failures and counter-empathic responses. *Journal of Experimental Social Psychology, 55*, 110–125. https://doi.org/10.1016/j.jesp.2014.06.007

Clydesdale, G. (2006). Creativity and competition: The Beatles. *Creativity Research Journal, 18*(2), 129–139. https://doi.org/10.1207/s15326934crj1802_1

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). New York: Routledge. https://doi.org/10.4324/9780203771587

David, E.M., Kim, T.-Y., Rodgers, M., & Chen, T. (2021). Helping while competing? The complex effects of competitive climates on the prosocial identity and performance relationship. *Journal of Management Studies, 58*(6), 1507–1531. https://doi.org/10.1111/joms.12675

De Dreu, C.K.W. (2010). Social conflict: The emergence and consequences of struggle and negotiation. In S.T. Fiske, D.T. Gilbert, & G. Lindzey (Eds.). *Handbook of Social Psychology* (5th ed., pp. 983–1023). Hoboken, N.J.: John Wiley & Sons, Inc. https://doi.org/10.1002/9780470561119.socpsy002027

Dollinger, S.J., Burke, P.A., & Gump, N.W. (2007). Creativity and values. *Creativity Research Journal, 19*(2–3), 91–103. https://doi.org/10.1080/10400410701395028

Duffy, J., & Kornienko, T. (2010). Does competition affect giving? *Journal of Economic Behavior & Organization, 74*(1–2), 82–103. https://doi.org/10.1016/j.jebo.2010.02.001

Erat, S., & Gneezy, U. (2016). Incentives for creativity. *Experimental Economics, 19*(2), 269–280. https://doi.org/10.1007/s10683-015-9440-5

Fehr, E., & Krajbich, I. (2014). Social preferences and the brain. In P.W. Glimcher, & E. Fehr (Eds.). *Neuroeconomics: Decision Making and the Brain* (2nd ed., pp. 193–218). London: Academic Press. https://doi.org/10.1016/b978-0-12-416008-8.00011-5

Fetiskin, N.P., Kozlov, V.V., & Manuilov, G.M. (2002). *Socio-psychological diagnostics of personality and small group development*. Moscow: Psikhoterapiya Publ. (In Russ.)

Förster, J., & Higgins, E.T. (2005). How global versus local perception fits regulatory focus. *Psychological Science, 16*(8), 631–636. https://doi.org/10.1111/j.1467-9280.2005.01586.x

Fung, D., & Howe, C. (2012). Liberal studies in Hong Kong: A new perspective on critical thinking through group work. *Thinking Skills and Creativity, 7*(2), 101–111. https://doi.org/10.1016/j.tsc.2012.04.002

Gao, Q., Chen, P., Zhou, Z., & Jiang, J. (2020). The impact of school climate on trait creativity in primary school students: The mediating role of achievement motivation and proactive personality. *Asia Pacific Journal of Education, 40*(3), 330–343. https://doi.org/10.1080/02188791.2019.1707644

Gao, Z., Cheng, L., Li, J., Chen, Q., & Hao, N. (2022). The dark side of creativity: Neural correlates of malevolent creative idea generation. *Neuropsychologia, 167*, 108164. https://doi.org/10.1016/j.neuropsychologia.2022.108164

Ge, J.-J., Zhang, P., & Dong, D. (2022). Can extrinsic motivational state hinder good behavior? The mediating role of ambition and competition in relationships of contingent rewards and punishments with work performance. *Current Psychology, 41*(4), 2162–2183. https://doi.org/10.1007/s12144-020-00688-2

Gentile, D.A., Anderson, C.A., Yukawa, S., Ihori, N., Saleem, M., Ming, L.K., Shibuya, A., Liau, A.K., Khoo, A., Bushman, B.J., Huesmann, L.R., & Sakamoto, A. (2009). The effects of prosocial video games on prosocial behaviors: international evidence from correlational, longitudinal, and experimental studies. *Personality and Social Psychology Bulletin, 35*(6), 752–763. https://doi.org/10.1177/0146167209333045

Grant, A.M., & Berry, J.W. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal, 54*(1), 73–96. https://doi.org/10.5465/amj.2011.59215085

Gross, D.P. (2020). Creativity under fire: The effects of competition on creative production. *The Review of Economics and Statistics, 102*(3), 583–599. https://doi.org/10.1162/rest_a_00831

Hegarty, W.H., & Sims, H.P. (1978). Some determinants of unethical decision behavior: An experiment. *Journal of Applied Psychology, 63*(4), 451–457. https://doi.org/10.1037/0021-9010.63.4.451

Hofstede, G. (2011). Dimensionalizing cultures: The Hofstede model in context. *Online Readings in Psychology and Culture, 2*(1), 8. https://doi.org/10.9707/2307-0919.1014

Hurtado, S., Eagan, M.K., Tran, M.C., Newman, C.B., Chang, M.J., & Velasco, P. (2011). "We do science here": Underrepresented students' interactions with faculty in different college contexts. *Journal of Social Issues, 67*(3), 553–579. https://doi.org/10.1111/j.1540-4560.2011.01714.x

Hyde, M.S., & Gess-Newsome, J. (2000). Factors that increase persistence of female undergraduate science students. In J. Bart (Ed.). *Women succeeding in the sciences: Theories and practices across disciplines* (pp. 115137). West Lafayette, IN: Purdue University Press.

Johnson, D.W., & Johnson, R.T. (1989). *Cooperation and competition: Theory and research*. Edina, MN: Interaction Book Company.

Johnson, D.W., & Johnson, R.T. (2009). An educational psychology success story: Social interdependence theory and cooperative learning. *Educational Researcher, 38*(5), 365–379. https://doi.org/10.3102/0013189x09339057

Johnson, D.W., Johnson, R.T., Johnson, J., & Anderson, D. (1976). Effects of cooperative versus individualized instruction on student prosocial behavior, attitudes toward learning, and achievement. *Journal of Educational Psychology, 68*(4), 446–452. https://doi.org/10.1037/0022-0663.68.4.446

Kahveci, A., Southerland, S.A., & Gilmer, P.J. (2008). From marginality to legitimate peripherality: Understanding the essential functions of a women's program. *Science Education, 92*(1), 33–64. https://doi.org/10.1002/sce.20234

Kapoor, H., & Khan, A. (2017). Deceptively yours: Valence-based creativity and deception. *Thinking Skills and Creativity, 23*, 199–206. https://doi.org/10.1016/j.tsc.2016.12.006

Karau, S.J., & Williams, K.D. (1993). Social loafing: A meta-analytic review and theoretical integration. *Journal of Personality and Social Psychology, 65*(4), 681–706. https://doi.org/10.1037/0022-3514.65.4.681

Kaufman, J.C., & Beghetto, R.A. (2009). Beyond big and little: The four c model of creativity. *Review of General Psychology, 13*(1), 1–12. https://doi.org/10.1037/a0013688

Koran, C.M. (1989). *School climate and student affective needs: A descriptive study of four junior high schools.* M.Ed. Thesis. Lethbridge, AB: University of Lethbridge.

Lewin, K. (1936). *Principles of topological psychology* (F. Heider & G. M. Heider, Trans.). New York: McGraw-Hill. http://doi.org/10.1037/10019-000

Lee, T., Sam Liu, C.-H., & Li, P.-H. (2021). The influences of cooperative climate, competitive climate and customer empowerment on service creativity. *Journal of Retailing and Consumer Services, 63*, 102726. https://doi.org/10.1016/j.jretconser.2021.102726

Lin, S.-Y. (S.), Park, G., Zhou, Q., & Hirst, G. (2023). Two birds, one stone: How altruism can facilitate both individual creativity and prosocial behavior in two different team contexts. *Group Dynamics: Theory, Research, and Practice, 27*(1), 65–79. https://doi.org/10.1037/gdn0000188

Lombardi, E., Traficante, D., Bettoni, R., Offredi, I., Giorgetti, M., & Vernice, M. (2019). The impact of school climate on well-being experience and school engagement: A study with high-school students. *Frontiers in Psychology, 10*, 2482. https://doi.org/10.3389/fpsyg.2019.02482

Lu, K., Xue, H., Nozawa, T., & Hao, N. (2019). Cooperation makes a group be more creative. *Cerebral Cortex, 29*(8), 3457–3470. https://doi.org/10.1093/cercor/bhy215

Luengo Kanacri, B.P., Eisenberg, N., Thartori, E., Pastorelli, C., Uribe Tirado, L.M., Gerbino, M., & Caprara, G.V. (2017). Longitudinal relations among positivity, perceived positive school climate, and prosocial behavior in colombian adolescents. *Child Development, 88*(4), 1100–1114. https://doi.org/10.1111/cdev.12863

Manzano-Sánchez, D., Gómez-Mármol, A., Valero-Valenzuela, A., & Jiménez-Parra, J.F. (2021). School climate and responsibility as predictors of antisocial and prosocial behaviors and violence: A study towards self-determination theory. *Behavioral Sciences, 11*(3), 36. https://doi.org/10.3390/bs11030036

Maxwell, S., Reynolds, K.J., Lee, E., Subasic, E., & Bromhead, D. (2017). The impact of school climate and school identification on academic achievement: Multilevel modeling with student and teacher data. *Frontiers in Psychology, 8*, 2069. https://doi.org/10.3389/fpsyg.2017.02069

Mayseless, N., Saggar, M., Hawthorne, G., & Reiss, A. (2018). Creativity in the twenty-first century: The added benefit of training and cooperation. In H. Plattner, C. Meinel & L. Leifer (Eds.). *Design Thinking Research. Making Distinctions: Collaboration versus Cooperation* (pp. 239–249). Cham: Springer. https://doi.org/10.1007/978-3-319-60967-6_12

Mcglynn, R.P., Gibbs, M.E., & Roberts, S.J. (1982). Effects of cooperative versus competitive set and coaction on creative responding. *The Journal of Social Psychology, 118*(2), 281–282. https://doi.org/10.1080/00224545.1982.9922809

Meshkova, N.V., & Enikolopov, S.N. (2016). The directions of creativity research in social interaction. *Voprosy Psychologii*, (4), 118-128. (In Russ.)

Moos, R.H., & Moos, B.S. (1978). Classroom social climate and student absences and grades. *Journal of Educational Psychology, 70*(2), 263–269. https://doi.org/10.1037/0022-0663.70.2.263

Moyal, A., & Ritov, I. (2020). The effect of contest participation and contest outcome on subsequent prosocial behavior. *PLoS ONE, 15*(11), e0240712. https://doi.org/10.1371/journal.pone.0240712

Murphy, R.O., & Ackermann, K.A. (2014). Social value orientation: Theoretical and measurement issues in the study of social preferences. *Personality and Social Psychology Review, 18*(1), 13–41. https://doi.org/10.1177/1088868313501745

Naumov, A., & Puffer, S. (2000). Measuring Russian culture using Hofstede's dimensions. *Applied Psychology, 49*(4), 709–718. https://doi.org/10.1111/1464-0597.00041

Nijstad, B.A., & De Dreu, C.K.W. (2012). Motivated information processing in organizational teams: Progress, puzzles, and prospects. *Research in Organizational Behavior, 32*, 87–111. https://doi.org/10.1016/j.riob.2012.11.004

OECD (2019). *PISA 2018 Results (Volume III): What school life means for students' lives*. Paris: PISA, OECD Publishing. https://doi.org/10.1787/acd78851-en

Ogrutan, P.L., Machidon, A.L., & Dinu, A. (2019). Is there a link between creativity and multiculturalism in education? *TEM Journal, 8*(2), 577–583. https://doi.org/10.18421/tem82-34

Pavlova, E.M. (2018). Model of connections between self-esteem of creativity and intelligence, tolerance of uncertainty and creativity. *Psychology. Journal of the Higher School of Economics, 15*(1), 69-78. (In Russ.) https://doi.org/10.17323/1813-8918-2018-1-69-78

Pearsall, M.J., & Venkataramani, V. (2015). Overcoming asymmetric goals in teams: The interactive roles of team learning orientation and team identification. *Journal of Applied Psychology, 100*(3), 735–748. https://doi.org/10.1037/a0038315

Posselt, J.R., & Lipson, S.K. (2016). Competition, anxiety, and depression in the college classroom: Variations by student identity and field of study. *Journal of College Student Development, 57*(8), 973–989. https://doi.org/10.1353/csd.2016.0094

Prabhu, R., Miller, S.R., Simpson, T.W., & Meisel, N.A. (2020). Built to win? Exploring the role of competitive environments on students' creativity in design for additive manufacturing tasks. *Journal of Engineering Design, 31*(11–12), 574–604. https://doi.org/10.1080/09544828.2020.1851661

Roseth, C.J., Johnson, D.W., & Johnson, R.T. (2008). Promoting early adolescents' achievement and peer relationships: The effects of cooperative, competitive, and individualistic goal structures. *Psychological Bulletin, 134*(2), 223–246. https://doi.org/10.1037/0033-2909.134.2.223

Schei, V. (2013). Creative people create values: Creativity and positive arousal in negotiations. *Creativity Research Journal, 25*(4), 408–417. https://doi.org/10.1080/10400419.2013.843336

Schwartz, S.H. (2010). Basic values: How they motivate and inhibit prosocial behavior. In M. Mikulincer & P.R. Shaver (Eds.). *Prosocial motives, emotions, and behavior: The better angels of our nature* (pp. 221–241). Washington, DC: American Psychological Association. https://doi.org/10.1037/12061-012

Seymour, E. (2002). Tracking the processes of change in US undergraduate education in science, mathematics, engineering, and technology. *Science Education, 86*(1), 79–105. https://doi.org/10.1002/sce.1044

Shapiro, C.A., & Sax, L.J. (2011). Major selection and persistence for women in STEM. *New Directions for Institutional Research, 2011*(152), 5–18. https://doi.org/10.1002/ir.404

Sommet, N., Darnon, C., Mugny, G., Quiamzade, A., Pulfrey, C., Dompnier, B., & Butera, F. (2014). Performance goals in conflictual social interactions: Towards the distinction between two modes of relational conflict regulation. *British Journal of Social Psychology, 53*(1), 134–153. https://doi.org/10.1111/bjso.12015

Sternberg, R.J., & Chowkase, A. (2021). When we teach for positive creativity, what exactly do we teach for? *Education Sciences, 11*(5), 237. https://doi.org/10.3390/educsci11050237

Sternberg, R.J., & Karami, S. (2021, April 8). Teaching for Positive Creativity. *ASCD*. Retrieved January 12, 2025, from https://www.ascd.org/el/articles/teaching-for-positive-creativity

Sternberg, R.J., & Lubart, T.I. (1999). The concept of creativity: Prospects and paradigms. In R.J. Sternberg (Ed.). *Handbook of creativity* (pp. 3–15). Cambridge: Cambridge University Press. https://doi.org/10.1017/cbo9780511807916.003

Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A review of school climate research. *Review of Educational Research, 83*(3), 357–385. https://doi.org/10.3102/0034654313483907

Vaccaro, A. (2010). What lies beneath seemingly positive campus climate results: Institutional sexism, racism, and male hostility toward equity initiatives and liberal bias. *Equity & Excellence in Education, 43*(2), 202–215. https://doi.org/10.1080/10665680903520231

Wang, H.-H., & Deng, X. (2022). The bridging role of goals between affective traits and positive creativity. *Education Sciences, 12*(2), 144. https://doi.org/10.3390/educsci12020144

Wang, M.-T., & Degol, J.L. (2016). School climate: A review of the construct, measurement, and impact on student outcomes. *Educational Psychology Review, 28*(2), 315–352. https://doi.org/10.1007/s10648-015-9319-1

Waring, T.M., Sullivan, A.V., & Stapp, J.R. (2016). Campus prosociality as a sustainability indicator. *International Journal of Sustainability in Higher Education, 17*(6), 895–916. https://doi.org/10.1108/ijshe-05-2015-0091

Wasburn, M.H., & Miller, S.G. (2004). Retaining undergraduate women in science, engineering, and technology: A survey of a student organization. *Journal of College Student Retention: Research, Theory & Practice, 6*(2), 155–168. https://doi.org/10.2190/ndxh-ym83-tkwy-4e6c

Yamagishi, T., & Yamagishi, M. (1994). Trust and commitment in the United States and Japan. *Motivation and Emotion, 18*(2), 129–166. https://doi.org/10.1007/bf02249397

Yan, B. (2019). Social value orientation, social influence and crowdsourced creativity. *Academy of Management Proceedings, 2019*(1), 13434. https://doi.org/10.5465/ambpp.2019.13434abstract

Zhao, Z., Renard, D., Elmoukhliss, M., & Balague, C. (2016). What affects creative performance in idea co-creation: Competitive, cooperative or coopetitive climate? *International Journal of Innovation Management, 20*(04), 1640002. https://doi.org/10.1142/s1363919616400028

Zhu, Y.-Q., Gardner, D.G., & Chen, H.-G. (2018). Relationships between work team climate, individual motivation, and creativity. *Journal of Management, 44*(5), 2094–2115. https://doi.org/10.1177/0149206316638161

Appendix

Русская версия опросника на конкурентный/кооперативный климат

Инструкция: Пожалуйста, оцените, насколько вы согласны с каждым из приведенных ниже утверждений, описывающих атмосферу и типичные формы взаимодействия между студентами в вашем университете (на факультете / образовательной программе / курсе). Используйте следующую шкалу:

1 — Совершенно не согласен(на)
2 — В значительной степени не согласен(на)
3 — Скорее не согласен(на)
4 — Ни согласен(на), ни не согласен(на)
5 — Скорее согласен(на)
6 — В значительной степени согласен(на)
7 — Полностью согласен(на)

Конкурентный климат:

1. Студентам в моем университете важно соревноваться друг с другом.

2. Похоже, что студенты в моем университете действительно конкурируют между собой.

3. В нашей учебной среде многие считают соперничество между студентами важным.

4. Студенты чувствуют, что преподаватели регулярно сравнивают их друг с другом.

Кооперативный климат:

1. Студентам в моем университете важно сотрудничать друг с другом.
2. Похоже, что студенты действительно работают вместе и помогают друг другу.
3. В нашей учебной среде многие считают сотрудничество между студентами важным.
4. Студенты чувствуют, что в университете их поощряют к совместной работе с другими.

Задание на креативность

Инструкция для участников: Пожалуйста, внимательно прочитайте ситуацию, описанную ниже, и постарайтесь представить себя на месте её участника. Ваша задача — описать, что бы вы сделали в такой ситуации. Постарайтесь быть конкретным(ой) и искренним(ей) и придумать как можно больше ответов. Ответ может включать как одно действие, так и несколько шагов. Здесь нет «правильных» или «неправильных» ответов.

Ситуация: «Представьте, что в вашу учебную группу недавно перевёлся новый студент. В последнее время учебная нагрузка была такой высокой, что у вас не было свободного времени, чтобы пообщаться с ним, хотя вам бы этого очень хотелось. Вы слышали от друзей, что этот студент очень интересный и креативный человек. Сегодня у вас появилось свободное время между парами, и вы пошли в столовую. Там вы видите этого студента. Он стоит один, изучает меню и явно никуда не торопится. Это отличная возможность познакомиться с ним, и вам важно произвести на него хорошее впечатление. Как бы вы начали разговор?»

Инструкция для расчетов: Несколько экспертов независимо оценивают ответы респондентов по трем критериям. Каждая идея оценивается отдельно, потом по каждому критерию считается средний балл. Первый критерий — оригинальность решения — насколько предложенное действие новое, необычное, нестандартное, отклоняющееся от типичных способов начала общения в аналогичных ситуациях. Шкала оценки от 1 балла — «действие полностью шаблонное, ожидаемое, обыденное» до 5 баллов — «действие неожиданное, творческое, содержит оригинальные элементы, нестандартный подход». Второй критерий — полезность / уместность решения — насколько действие практично, логично, реалистично и может способствовать установлению и поддержанию общения с новым студентом? Шкала оценки от 1 балла — «действие малореалистично, вряд ли приведет к успешному общению» до 5 баллов — «действие адекватно ситуации, вероятно, поможет начать и поддержать контакт». Третий критерий — позитивность решения — насколько действие социально ориентировано, доброжелательно, направлено на установление хороших отношений, создание комфортной атмосферы, учет чувств и интересов другого человека. Шкала оценки от 1 балла — «действие нейтральное или потенциально неприятное для другого и отношений» до 5 баллов — «действие выражает интерес, уважение, открытость и стремление к теплому контакту и желание улучшить состояние другого человека». Если участник дал несколько ответов, каждый оценивается отдельно, затем выводится среднее значение по каждому критерию. Итоговый индекс позитивной креативности — это среднее арифметическое трёх оценок по каждому респонденту.

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Исследовательская статья

Связь кооперативного и конкурентного университетского климата с позитивной креативностью российских студентов

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Аннотация. Креативность — одна из ключевых компетенций, которую образовательные организации должны развивать у своих студентов. Учитывая валентность креативных идей и их последствия, в данном исследовании рассмотрена взаимосвязь кооперации и конкуренции как аспектов университетского климата с позитивной креативностью студентов. Количественное кросс-секционное исследование было проведено на выборке из 341 российского студента (54,8 % — женщины) с использованием шкал кооперации и конкуренции из PISA и адаптированного задания из «Теста реалистичных проблемных ситуаций», измененного для измерения позитивной креативности в университетском контексте. Результаты показали, что кооперативный климат не имеет значимой связи с позитивной креативностью, тогда как конкурентный климат способствует ее проявлению. В обсуждении результатов рассмотрены последствия кооперативного и конкурент-

ного университетского климата в более широком контексте, а также особенности повседневной позитивной креативности во взаимодействии. В целом исследование показывает, что конкурентный климат может вести к более выраженной позитивной социальной креативности, вероятно, как защитной стратегии.

Ключевые слова: креативность, позитивная креативность, университетский климат, кооперация, конкуренция, студенты вуза

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