

**Research results article**

Received: **17.04.2020**

Accepted: **15.08.2020**

Published: **12.12.2020**

Sources of financing: **University of Białystok**

DOI: **10.5604/01.3001.0014.5709**

Authors' Contribution:

(A) Study Design

(B) Data Collection

(C) **Statistical Analysis**

(D) **Data Interpretation**

(E) **Manuscript Preparation**

(F) Literature Search

Anna Krajewska\*

ankraj3@wp.pl

## **ORGANIZATIONAL FORMS OF DIDACTIC COOPERATION IN THE PROCESS OF TEACHING IN THE RATING OF TEACHERS AND STUDENTS**

### **FORMY ORGANIZACYJNE WSPÓŁDZIAŁANIA DYDAKTYCZNEGO W PROCESIE KSZTAŁCENIA W OCENIE NAUCZYCIELI I STUDENTÓW**

**Abstract:** This study aims to explore the effects of didactic cooperation between teachers and students with particular attention to the organizational forms used in teaching process. The level of their rationality and profitability in the phases of teaching process were analyzed in the rating students and teachers via the scaling method. The study encompassed 1166 pedagogy students and 55 teachers from two universities. The results revealed that the quality of

---

\* ORCID: 0000-0001-9347-6160. University of Białystok, ul. Świerkowa 20, 15-328 Białystok, phone number: 85 745 73 90, noe.sekretariat@uwb.edu.pl

effects in terms of rationality and profitability of the organizational forms used in didactic cooperation was evaluated by students at average or low level, although the teachers rated these aspects at higher level. This paper concludes that there is a need to increase the level of cooperation in this element of the teaching process, because it is closely interrelated with other elements and thus it determines the effects of the teacher's and students' work in the phases of teaching process, as well as the quality of teaching.

**Keywords:** didactic cooperation of teachers and students, organizational forms, teaching in higher education, rationality, profitability

**Streszczenie:** Celem badań jest charakterystyka efektów współdziałania dydaktycznego nauczycieli i studentów w zakresie stosowanych form organizacyjnych w procesie kształcenia. Analizowano poziom ich racjonalności i korzystności w fazach procesu kształcenia w ocenie studentów i nauczycieli. Wykorzystano metodę skalowania. W badaniach uczestniczyło 1166 studentów pedagogiki i 55 nauczycieli z dwóch uniwersytetów. Jakość efektów w zakresie racjonalności i korzystności stosowanych form organizacyjnych we współdziałaniu dydaktycznym w ocenie studentów w fazach procesu kształcenia jest przeciętna lub niska, chociaż nauczyciele oceniali je wyżej. Istnieje potrzeba podniesienia poziomu współdziałania w tym elemencie systemu, ponieważ jest on wzajemnie powiązany z innymi elementami i dlatego warunkuje efekty pracy nauczyciela i studentów w fazach procesu kształcenia, a także uzyskiwaną jakość kształcenia.

**Słowa kluczowe:** współdziałanie dydaktyczne nauczycieli i studentów, formy organizacyjne, proces kształcenia, racjonalność, korzystność

## INTRODUCTION

The changing contexts of the functioning of higher education in Poland and in the world in recent decades raise concerns about the quality of education, all the more so because in Poland and in the world there is a slight increase or reduction in financing of higher education. Therefore, it seems right to look for non-economic sources of improving the quality of education, related to the use of the potential inherent in the didactic cooperation of teachers and students, the more so as there are no Polish and foreign studies in this area. The presented research results are a small fragment of more extensive ones. To assess the state of didactic cooperation between teachers and students in the phases of the teaching process and their elements, I developed three scales of estimation, standardized them and applied them in my research. The subject of research in this study are the organizational forms of didactic cooperation between teachers and students in the stages of the teaching process as assessed by them. The aim of the analyzes is to determine the quality of the obtained results in terms of the rationality and profitability of the organizational forms used in the didactic cooperation of teachers and students in the stages of the teaching process in their assessment. In the final part I present the conclusions from the research.

## LITERATURE REVIEW

Undertaking research in the field of didactic cooperation between teachers and students in the teaching process requires the use of constructivist theories of student-centered education (including psychological and socio-cultural constructivism), social interdependence and praxeological concepts of action and cooperation. The indicated theories have already been the subject of detailed analyzes (Krajewska, 2019, 2016), which is why I present their brief description.

In the concepts of student-centered education, the role of the teacher in the teaching process is changing, his/her activities are aimed at facilitating learning for students, providing them with help and multilateral support through the subjective treatment of students. It requires a sense of responsibility of the individual for the actions taken, full commitment, his/her active learning, deep, not superficial, people learn how to think, not what to think; relations between the teacher and students are equal and support the development of both sides (Nordal et al., 2015; Blackie et al., 2010). The role of students is also changing, they become responsible for the teaching process on an equal footing with the teacher, which is also referred to as a manifestation of the democratization of the teaching and learning process (Iloanya, 2017).

In the theory of social interdependence, it is assumed that the state of social interdependence is determined by the interaction of individuals, which causes specific results (Johnson et al., 2005). Positive interdependence contributes to facilitating interaction and occurs when individuals encourage each other and facilitate each other's efforts to achieve common goals, and negative interdependence inhibits each of them from making efforts and achieving goals. This theory emphasizes the importance of group and individual responsibility of individuals, as well as their activity in situations of positive interdependence, in cooperation.

In praxeological concepts, it is assumed that cooperation is a positive cooperation, a multi-entity activity aimed at achieving common or compatible goals (Kotarbiński, 1975; Pszczołowski, 1978). The cooperation of many entities due to their specific activities and goals takes place when each of these entities helps another or is supported by another from this group. One entity helps another if it tries to enable or at least facilitate the achievement of the goal, and the actions of cooperating persons are mutually conditioned. At the same time, it is assumed that practical and mixed assessments of cooperation evaluate its features characterizing the manner and result of cooperation, as well as cooperating persons (Kotarbiński, 1975).

I used the assumptions of the above-mentioned theory to develop the concept of didactic cooperation between teachers and students, methods of determining its state and research.

## METHODOLOGY

The research methodology has already been presented in detail (Krajewska, 2019, 2016), which is why I present its outline below. As a result of the analysis of the literature, I assumed that didactic cooperation is a system of multi-entity activities complex in the education process, consisting of conscious activities of academic teachers and students aimed at common or compatible goals - causing changes in the personality of learners in accordance with the adopted values and goals in which they help each other with their activities, enable or facilitate the course of interdependent phases of preparation, implementation, and control and assessment. At the same time, each of the phases of the system of didactic cooperation contains interrelated and conditioned elements – goals, entities, subject, content, methods, means, organizational forms, conditions (internal and external) and results. Therefore, didactic cooperation between teachers and students means mutual assistance, enabling or facilitating consciously undertaken activities in its interdependent phases and in their interrelated elements.

I assumed that the level of didactic cooperation between teachers and students in the education process was determined by the quality indicators of its effects concerning:

- **objectives of cooperation** – the level of their effectiveness and usefulness;
- **cooperation of entities (people)** – the level of their responsibility (teachers and students), level of activity, independence and sense of subjectivity of students);
- **the subject, content, methods, means, organizational forms and conditions of cooperation** – the level of their effectiveness, profitability, economy and rationality;
- results of cooperation – the level of their effectiveness and usefulness; in the preparation, implementation, control and evaluation phases of the teaching process.

The subject of research in this study are the organizational forms of didactic cooperation between teachers and students in the stages of the teaching process in their assessment, and the aim is to determine the quality of the obtained results in terms of the level of their rationality and profitability in the phase of preparation, implementation, as well as control and assessment of the education process in the evaluation of its participants. In order to collect empirical material, I used an approach combining quantitative and qualitative research, including the scaling method, questionnaire and interview (Palka, 2018). The use of the scaling method made it possible to develop three subscales of estimates to study the state of didactic cooperation and the quality of effects in the stages of the teaching process and in their individual elements.

To assess the quality of the effects of didactic cooperation in each of the stages of the teaching process, I developed three assessment scales (WDNiS [Didactic

Cooperation of Teachers and Students] in the Preparation Phase, WDNiS in the Implementation Phase, WDNiS in the Control and Assessment Phase), identical for teachers and students, 25 items each, which included an assessment of the objectives of cooperation (1–2), entities (3–7), subject (8–9), content (10–11), methods (12–14), means (15–17), organizational forms (18–19), conditions (20–23) and the results of cooperation (24–25). The respondents assessed on a scale of 5–1 (5 – very high, 4 – rather high, 3 – average, 2 – rather low, 1 – very low). After the trial tests, I standardized the three developed scales. I estimated the discriminant power of individual items on the scale in three phases of the education process for teachers and students separately, using the point-four-field correlation coefficient  $\phi$  (Brzeziński, 2002, p. 507). The values of the  $\phi$  discriminant power for the scale items analyzed here (18–19) from the subsequent phases of the education process turned out to be satisfactory and met the required criteria both in the sample of teachers and students (Table 1).

**Table 1.** The content of S. WDNiS items in the stages of the teaching process and the  $\phi$  discriminant power factors from the research of teachers (N) and students (S)\*

Item	Content	$\Phi$	
		N	S
Preparation Phase			
18.	N enables S to participate in the selection of organizational forms in the teaching process	0.60	0.70
19.	S participate in the selection of organizational forms in the teaching process and submit their own proposals	0.81	0.71
Implementation Phase			
18.	N differentiates the organizational forms of the teaching process depending on the goals, content, methods, means and conditions of education	0.74	0.60
19.	Organizational forms of the teaching process used by N are diverse and enable S individual, group and collective work	0.80	0.68
Control and Assessment Phase			
18.	N refers to S self-control and self-evaluation and enables S to participate in peer-to-peer control and assessment, as well as joint assessment with N	0.54	0.58
19.	N forms of inspection and evaluation are varied and enable control and evaluation of S's individual work, as well as in the group	0.60	0.73

**Source:** author's own.

The values of the  $\phi$  discriminant power for the scale items analyzed here (18–19) from the phases of the teaching process turned out to be satisfactory and met the required criteria both in the sample of teachers (required criterion 0.28) and students (required criterion 0.14). In addition, the results of the evaluation of didactic cooperation for each of the phases of the teaching process were standardized by transforming into sten scores (Brzeziński, 2002, p. 541), separately for teachers and students. Therefore, I obtained groups of students and teachers who in the subsequent stages of the teaching process, rated the level of didactic cooperation high (+ WDNiS), average (WDNiS) or low (– WDNiS). 1166 students of pedagogy and 55 teachers

from the University of Szczecin and the University of Białystok participated in the main research.

## DISCUSSION OF RESEARCH RESULTS

Research has shown that almost every third student and teacher has a low assessment of the level of didactic cooperation of participants in the teaching process, providing mutual assistance, facilitating and enabling activities undertaken in subsequent phases, about 40% – on average, but at the same time only almost every third respondent perceives the quality of these relations at a high level. Thus, there are reasons to conclude that the didactic cooperation of teachers and students in the subsequent stages of the teaching process is not at the desired level. At the same time, it should be noted that these are general assessments, and therefore it is worth analyzing the assessments of the respondents concerning individual elements of the didactic cooperation system, and in this study, the organizational forms of cooperation in subsequent stages of the teaching process are the subject of interest.

Organizational forms are an element of the system of didactic cooperation between teachers and students, connected and mutually conditioned by its goals, entities, subject, content, methods, means, conditions and results in interdependent phases. Their assessment may include many criteria, and I assumed their rationality and benefit as the most important in my research. As a result of the analysis of literature (Kotarbiński, 1975; Pszczołowski, 1978 et al.), I assumed that the rationality of the system of didactic cooperation is valued by the fact that entities interacting with reason, knowledge in adjusting the methods of cooperation – their subject, content, methods, means, organizational forms and conditions to the cooperation in the phases of the education process. On the other hand, the benefits of the system of didactic cooperation are valued by the benefits (or losses) of the cooperating entities resulting from the methods of cooperation adopted in the phases – their subject, content, methods, means, organizational forms, conditions and obtained results. For the sake of clarity of the analyzes, the research results are presented in separate sections relating to the subsequent phases of the teaching process.

## PREPARATION PHASE OF EDUCATION PROCESS

In the preparation phase, as in any other, organizational forms of didactic cooperation are interrelated with other elements of the system, and they serve to prepare changes in the personality of students. The organizational form here is collective work, which makes it easier to determine the effects of education (formerly goals), ways of achieving them, as well as control and evaluation of results, because it requires the activity of teachers and students, it enables the adoption of necessary arrangements

corresponding to mutual preferences, and thus ensuring more effective methods of operation in subsequent phases. It is necessary, among others, to make arrangements for the organizational forms of the teacher's work with students – individual, group and collective, each of which has its own advantages and disadvantages from the point of view of the needs and possibilities of cooperating entities. Therefore, enabling the participation of students in the selection of organizational forms of education is an opportunity for the teacher to recognize the needs and expectations of students, and at the same time may ensure the selection of more useful and beneficial forms, if students are active in reporting their own preferences. In the research, I assumed that the level of rationality of organizational forms of didactic cooperation between teachers and students is expressed by their assessment (5–1) of statement No. 18 on S. WDNiS in the Preparation Phase – “the teacher enables students to participate in the selection of organizational forms in the teaching process”, and the level of their profitability the assessment of statement No. 19 – “Students participate in the selection of organizational forms of education and submit their own proposals”. The results of the research show (Table 2) that the respondents, regardless of the general assessment of the level of didactic cooperation in the preparation phase – low, average or high, differ in their assessment of enabling students to participate in the selection of organizational forms, while the students' assessments indicate a low level (2.03; 2.81; 3.52), and teachers – average (2.66; 3.08; 3.94), and the differences were statistically significant ( $p < 0.01$  and  $p < 0.05$ ).

**Table 2.** Organizational forms of didactic cooperation - the quality of effects as assessed by students (S) and teachers (N) assessing its level in the stages of the teaching process – low (–WDNiS), average (WDNiS) and high (+ WDNiS) \*

Organizational forms of didactic cooperation between N and S – quality of effects			Arithmetic mean of ratings in the stages of the teaching process								
			Preparation			Implementation			Control and assessment		
			– WDNiS	WDNiS	+ WDNiS	– WDNiS	WDNiS	+ WDNiS	– WDNiS	WDNiS	+ WDNiS
Level	Rationality	S	2.03	2.81	3.52	2.44	3.10	3.84	2.24	2.89	3.74
		N	2.66	3.08	3.94	3.28	3.87	4.76	2.81	3.45	4.23
		$p < *$	0.01–0.05			0.01	0.01	0.01	0.05	0.01	0.01
	Profitability	S	1.96	2.72	3.54	2.64	3.39	4.10	2.41	3.20	3.97
		N	2.06	2.86	3.58	2.85	3.79	4.53	2.93	3.59	4.35
		$p < **$	–	–	–	–	0.05	0.01	0.01	0.05	–

\* Assessments were made on a scale of 5–1

\*\* Significance of differences between arithmetic means, Z score

**Source:** author's own.

At the same time, the respondents agree in the assessment of students' activity in this area and in submitting their own proposals – the average students' scores (1.96; 2.72; 3.54) are very similar to the feelings of teachers (2.06; 2.86; 3.58) and indicate a low level. It can be assumed that the low activity of students in this area results to some extent from the limited time possibilities during the first classes, often it may be the result of their passivity, lack of the desired behavioral, emotional and cognitive involvement in the study process (Kahu, 2013; Trowler, 2010), but it may also be the result of teachers' lack of interest in such student activity (Laskowski, 2019).

Thus, the level of rationality and profitability of the organizational forms used in the didactic cooperation in the preparation phase is low in the opinion of the respondents, but it should be emphasized that it is also conditioned by the properties and other elements of the system, which affect the quality of effects in this phase, and this in turn following it.

## IMPLEMENTATION PHASE OF EDUCATION PROCESS

In the implementation phase of the didactic process, the forms of didactic cooperation between teachers and students are related to the organizational forms of education, and their selection depends on the other elements of the system – goals, entities, subject, content, methods, means, conditions and results. Diversifying organizational forms of education - the use of individual, group and collective forms is conducive to changes in the personality of students, multilateral development, establishing interpersonal and intergroup contacts, teaches cooperation and cooperation in the implementation of tasks.

In the research, I assumed that the level of rationality of organizational forms of didactic cooperation between teachers and students is expressed by their assessment (5–1) of statement no. 18 on S. WDNiS in the Implementation Phase – “The teacher differentiates the organizational forms of the teaching process depending on the goals, content, methods and conditions of education”, and the level of their profitability the assessment of the statement no. 19 – “The forms used by the teacher are diverse and enable students to work individually, in a group and collectively”. The analysis of the data from Table 2 shows that students and teachers, regardless of the overall assessment of the level of cooperation in this phase, often differ in their ratings ( $p(0.01)$ ), and students' ratings are significantly lower than that of teachers'. The greatest discrepancy occurred in the teacher's assessment of differentiating organizational forms depending on other elements of the system – students 2.44; 3.10; 3.84 (average level), and teachers 3.28; 3.87; 4.76 (high level). Similar, although slightly smaller differences occurred in the assessment of their diversity – average, respectively 2.64; 3.39 and 4.10 and 2.85; 3.79 and 4.53. At the same time, research by T. Bauman (2011) shows that students prefer to work in small groups, which may take the form of discussions, problem solving, as well as joint performance of a task,



but they also see the advantages of various methods used during classes. Organizational forms of didactic cooperation are related to other elements of the system in the implementation phase, and therefore the average level of their rationality and profitability in the assessment of students, and higher level in the opinion of teachers, is also conditioned by their properties, but also by the quality of the effects in this regard from preparation (low level), and these, in turn, affect control and assessment.

## CONTROL AND ASSESSMENT PHASE IN TEACHING PROCESS

In the phase of control and assessment of the education process, as in its implementation, the forms of didactic cooperation are related to the organizational forms of control and evaluation activities, they enable the control and evaluation of the changes made in the personality of students, and the comparison of results with their goals. Their selection is determined by the remaining elements of the didactic cooperation system. It is advantageous, *inter alia*, to differentiate the forms used so that they allow control and assessment of individual work of students, but also in a group. In recent years, the need to increase the role of students in the assessment process, their activity and independence, through more frequent use in practice of students' self-assessment, mutual (peer) assessment, and joint assessment with the teacher, has been gaining importance. The use of such organizational forms in control and assessment improves not only the process and results, but also increases the awareness of the quality of students' own work, reflection on their own learning, and increased responsibility for themselves and others. In the research, the level of rationality of organizational forms of didactic cooperation between teachers and students is expressed by their assessment (5–1) of statement no. 18 on S. WDNiS in the Control and Assessment Phase – “The teacher appeals to students' self-control and self-assessment and enables students to participate in peer-to-peer and joint control and assessment with the teacher”, and the level of their profitability by assessment of the statement No. 19 – “The forms of control and evaluation used by the teacher are diverse and enable the control and evaluation of individual and group work”. The results of the research in the scope analyzed here are similar to those in the implementation phase of the teaching process (Table 2) and show that the respondents differ in their ratings ( $p < 0.01$ ), while the ratings of students are again lower than that of teachers. Students rated the teachers' use of self-control and student self-assessment, peer assessment as well as the mutual assessment – average 2.24 as low or average; 2.89; 3.74, while teachers average or higher – average 2.81; 3.45; 4.23. Meanwhile, research shows the importance of using student self-assessment in the formative assessment process, where students reflect and evaluate the quality of their work and their own learning, assess the degree to which they fulfill specific goals or criteria, identify strengths and weaknesses in their work and correct it accordingly (e.g., Wanner et

al., 2018). The systematic use of self-assessment and peer-peer assessment by teachers teaches students to construct and provide high-quality feedback to their peers is a key skill in student development (e.g., Sridharan et al., 2019). However, according to student satisfaction surveys, deficiencies in this respect are the most criticized aspect of their university education (Boud et al., 2013).

Similar, statistically significant differences ( $p < 0.01$  and  $p < 0.05$ ) occurred between the respondents in the assessment of the use by teachers of such forms that enable the assessment of individual student work, but also in the group – student average 2.41; 3.20; 3.97, and teachers – higher 2.93; 3.59; 4.35. Despite differences in the assessment of organizational forms of cooperation in the control and assessment phase (students low or average, and teachers average or higher), the quality of the results obtained is mutually dependent on the properties of other elements of the system in this phase, but also on the quality of the effects from the preparation and implementation phase.

## DISCUSSION AND CONCLUSIONS

The results of the research showed that the level of rationality and profitability of the organizational forms used in didactic cooperation in the assessment of students in the preparation phase is average or lower, in terms of implementation and control and assessment – average, although the teachers rated higher. The established level of rationality and profitability of organizational forms of didactic cooperation in preparation cannot be satisfied, reflection is caused by average, but sometimes lower, students' grades regarding the teacher's differentiation of organizational forms of cooperation depending on other elements of the system, including their diversity in the implementation, and control and assessment phases. The research results indicate the need for changes, because didactic cooperation also in this element of the system determines the achievement of goals in interdependent phases, the achieved results and the quality of education.

The analysis of the results of the evaluation of the organizational forms used in the didactic cooperation between teachers and students at the stages of the teaching process, with the adopted understanding of their rationality and benefit, enables the formulation of the conclusions:

- The level of rationality and profitability of the applied forms of organizational cooperation in the phases of the teaching process is higher in the opinion of teachers than students. The interdependence of the phases of the system shows that the low or average level of rationality and profitability of the applied forms of organizational cooperation in the preparation phase determines a slightly higher quality of effects in implementation, but also their level in these phases causes similar effects in this respect in the control

and assessment phase, as in consequently affects the quality of education obtained.

- In the preparation phase, the respondents rated the level of rationality of the forms of cooperation higher (the teacher allows students to participate in the selection of organizational forms) than the level of their advantage (students participate in the selection of organizational forms), which means that the activity of students in this area is limited.
- In the implementation phase, students rated the highest level of profitability of organizational forms of cooperation (they enable individual and group work), and much lower their rationality (differentiation of organizational forms by the teacher depending on the goals, content, methods, conditions of education), which determines the area of reflection and activities for the teacher.
- In the control and assessment phase, the respondents assessed the level of profitability of the organizational forms of cooperation used (their diversity, including the assessment of individual and group work) higher than the level of their rationality (using the student's self-control and self-assessment, peer and joint assessment with the teacher), which indicates the need to increase student activity in this phase of the teaching process.
- Organizational forms of cooperation are an element of the system interconnected with others, therefore the level of their rationality and profitability in phases is determined by the properties of the other components – goals, entities, object, content and others.

Research has shown that in academic practice the level of cooperation between teachers and students in the teaching process in the analyzed element requires changes, increasing commitment and improving the quality of activities undertaken by both teachers and students. It is a non-economic source of increasing the quality of education in higher education, the potential of cooperation – mutual assistance, enabling and facilitating is not used optimally. However, it should be emphasized that the changes are also conditioned by many factors independent of the participants of the teaching process.

## REFERENCES

- Bauman, T. (2011). *Proces kształcenia w uniwersytecie w perspektywie potrzeb nauczycieli akademickich i oczekiwań studentów. Raport z badań*. Gdańsk 2011.
- Blackie, M.A.L., Case, J.M., Jawitz, J. (2010). Student-centredness: the link between transforming students and transforming ourselves. *Teaching in Higher Education*, 15 (6). Access: <https://open.uct.ac.za/handle/11427/9853>

- Boud, D., Molloy, E. (2013). Rethinking Models of Feedback for Learning: The Challenge of Design. *Assessment & Evaluation in Higher Education*, 38 (6). DOI: 10.1080/02602938.2012.691462. Access: <https://www.tandfonline.com/doi/abs/10.1080/02602938.2012.691462>
- Brzeziński, J. (2002). *Metodologia badań psychologicznych*. Warszawa.
- Denek, K. (2011). *Uniwersytet w perspektywie społeczeństwa wiedzy. Dydaktyka akademicka i jej efekty*. Poznań.
- Denek, K. (2009). Podstawowe powinności nauczycieli akademickich. W: A.J. Sowiński (red.), *Kultura pedagogiczna w oglądzie pedagogicznym*. Szczecin.
- Iloanya, J. (2017). Democratization of Teaching and Learning: a tool for the implementation of the Tuning Approach. *Tuning Journal for Higher Education*, 4 (2). DOI: 10.18543/tjhe-4(2)-2017pp257-276. Access: <https://www.tuningjournal.org/article/view/1217>
- Johnson, D.W., Johnson, R.T. (2005). New Development in Social Interdependence Theory. *Genetic, Social and General Psychology Monographs*, 131 (4). DOI: 10.3200/MONO.131.4.285-358. Access: [https://www.researchgate.net/publication/6609956\\_New\\_Developments\\_in\\_Social\\_Interdependence\\_Theory](https://www.researchgate.net/publication/6609956_New_Developments_in_Social_Interdependence_Theory)
- Kahu, E.R. (2013). Framing student engagement in higher education. *Studies in Higher Education*, 38 (5). DOI: 10.1080/03075079.2011.598505. Access: <https://www.tandfonline.com/doi/full/10.1080/03075079.2011.598505>
- Kotarbiński, T. (1975). *Traktat o dobrej robocie*. Wrocław.
- Krajewska, A. (2019). Circumstances constricting the didactic cooperation of teachers and students in their assessment. *Humanitas University Research Papers. Pedagogy*, 19. DOI: 10.5604/01.3001.0013.2217. Access: [https://www.humanitas.edu.pl/resources/upload/dokumenty/Wydawnictwo/ZN%20Pedagogika/ZN%20Pedagogika%202019%20z.%2019/Pedagogika%2019\\_2019-compressed-183-194.pdf](https://www.humanitas.edu.pl/resources/upload/dokumenty/Wydawnictwo/ZN%20Pedagogika/ZN%20Pedagogika%202019%20z.%2019/Pedagogika%2019_2019-compressed-183-194.pdf)
- Krajewska, A. (2016). *Współdziałanie dydaktyczne nauczycieli akademickich i studentów a jakość kształcenia na przykładzie studiów pedagogicznych*. Białystok.
- Laskowski, M. (2019). Profiles of social competence of academic teachers of military universities. *Humanitas University Research Papers. Pedagogy*, 19. DOI: 10.5604/01.3001.0013.2218. Access: [https://www.humanitas.edu.pl/resources/upload/dokumenty/Wydawnictwo/ZN%20Pedagogika/ZN%20Pedagogika%202019%20z.%2019/Pedagogika%2019\\_2019-compressed-195-207.pdf](https://www.humanitas.edu.pl/resources/upload/dokumenty/Wydawnictwo/ZN%20Pedagogika/ZN%20Pedagogika%202019%20z.%2019/Pedagogika%2019_2019-compressed-195-207.pdf)
- Ning, H.K., Downing, K. (2011). The interrelationship between student learning experience and study behavior. *Higher Education Research & Development*, 30 (6). DOI: 10.1080/07294360.2010.539598. Access: [https://www.researchgate.net/publication/254266702\\_The\\_interrelationship\\_between\\_student\\_learning\\_experience\\_and\\_study\\_behaviour](https://www.researchgate.net/publication/254266702_The_interrelationship_between_student_learning_experience_and_study_behaviour)

- Nordal, E., Isoski, T. (2015). Overview On Student-Centered Learning In Higher Education In Europe: Research Study. Brussels. Access: <https://www.esu-online.org/wp-content/uploads/2016/07/Overview-on-Student-Centred-Learning-in-Higher-Education-in-Europe.pdf>
- Palka, S. (2018). *Wiązanie podejść metodologicznych w pedagogice teoretyczno-praktycznej*. Kraków.
- Pszczółowski, T. (1978). *Mała encyklopedia prakseologii i teorii organizacji*. Wrocław.
- Richardson, S., Radloff, A. (2014). Allies in learning: critical insights into the importance of staff – student interactions in university education. *Teaching in Higher Education*, 19 (6). DOI: 10.1080/13562517.2014.901960. Access: [https://www.researchgate.net/publication/262693026\\_Allies\\_in\\_learning\\_Critical\\_insights\\_into\\_the\\_importance\\_of-staff-student\\_interactions\\_in\\_university\\_education](https://www.researchgate.net/publication/262693026_Allies_in_learning_Critical_insights_into_the_importance_of-staff-student_interactions_in_university_education)
- Sridharan, B., Boud, D. (2019). The effects of peer judgements on teamwork and self-assessment ability in collaborative group work. *Assessment & Evaluation in Higher Education*, 44 (6). DOI: 10.1080/02602938.2018.1545898. Access: <https://www.tandfonline.com/doi/abs/10.1080/02602938.2018.1545898>
- Trowler, V. (2010). *Student Engagement Literature Review*. University of Lancaster.
- Wanner, T., Palmer, E. (2018). Formative self-and peer assessment for improved student learning: the crucial factors of design, teacher participation and feedback. *Assessment & Evaluation in Higher Education*, 43 (7). DOI: 10.1080/02602938.2018.1427698. Access: <https://www.tandfonline.com/doi/abs/10.1080/02602938.2018.1427698>