

AKADÉMIAI KIADÓ

# Improving university students' cooperation skills through portfolio projects: A pilot study

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ORIGINAL RESEARCH PAPER



## ABSTRACT

In the autumn semester of the academic year 2019/2020, a portfolio approach was introduced and piloted in one of the ESP courses offered by Budapest Business School's Faculty of Finance and Accountancy. Besides developing ESP skills, the portfolio tasks developed for the purpose of this research and introduced during the research project reported herein were intended to improve students' cooperation skills, which are essential in the job market. At the beginning of the same semester in order to forecast how successful this portfolio approach could be, we intended to obtain insights into our students' initial attitudes towards cooperation with peers and wished to look into the likelihood of participants' positive reception of cooperation-purpose portfolio tasks. To this end, a quantitative questionnaire study was carried out through an online platform amongst 49 Hungarian university students. This paper presents the results of this study. First, the relevant theoretical background is presented, namely, cooperation as a soft skill and its subskills. Then the possibilities and opportunities of improving cooperation skills during ESP classes are discussed: in the scope of our study, relying on the methodological approach offered by of the European Language Portfolio, cooperation skills were developed through cooperation-purpose portfolio tasks. Next, our study describes the quantitative questionnaire study, its administration and the resulting data. Our results show that students have a positive initial attitude towards cooperation with peers and cooperation-purpose portfolio tasks, and it has been found that the portfolio approach used in this research project seems to be a useful strategy for developing participants' cooperation skills.

## KEYWORDS

21st century skill, business English, European Language Portfolio, cooperation skills, portfolio approach, transversal skills

## INTRODUCTION

In today's world of work, the complexity of tasks to be performed and the globalised nature of both the workplace and service-provision increasingly necessitate collaboration and cooperation among co-workers at any workplace. The need for these 21st century skills, with some transversal skills included, is underpinned by several research efforts including the 2015 study by Hart Research Associates or the 2007 study by the Association of American Colleges and Universities. Even specialised editions of journals like *The Economist* (2017) have addressed this issue, and concluded that cooperation skills are one of the most essential qualities employers expect their current or future workforce to possess.

Having noticed this arising need, higher education institutions are constantly updating the range of skills to be developed in the scope of their training programmes. One very expedient way to develop such skills is to teach and practice them in professional contexts and pair them up with subject areas including foreign languages. As most commonly language learning takes place in groups where learners very frequently work together, cooperation skills can ideally be developed in such learning environments. The Department of Languages for Finance and Management at Budapest Business School University of Applied Sciences' (BBS) Faculty of Finance and Accountancy (BBS FFA) had also realised this, and in

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order to develop and enhance its students' cooperation skills, it considered and realised, in the scope of a pilot project, the introduction of a portfolio approach to promote cooperation skills at its English for specific purposes (ESP) classes.

With a view to this pilot project, this study seeks to uncover whether students would welcome cooperation skills development in the scope of ESP classes through a portfolio project, and whether the portfolio tasks – developed for the purpose of cooperation skills development in the scope of this research project – in their present form would constitute a potential candidate for this purpose. In the light of this, the present study introduces the relevant theoretical background in the context of which the most important basic terms (including team and skill) are used in the present study, to be followed by the definition of cooperation and its subskills. Next, a description of how the portfolio tasks developed by BBS FFA's Department of Languages for Finance and Management can potentially improve cooperation skills is provided. The subsequent section in the paper outlines the research design including the description of the participants, the instrument for data collection, the data collection itself and the procedures of analysis. After that, the data and the analysis are presented, and finally the pedagogical implications of the research as well as its limitations are discussed.

## THEORETICAL BACKGROUND

### Team: definition and characteristics

The literature distinguishes between several types of “unity of people” and labels them using diverse terms. Recognising the added value of close cooperation, [Barczak, Lassk, and Mulki \(2010, p. 332\)](#), quoting [Chen \(2007, p. 239\)](#), define a unity of people they term ‘team’ as follows: “a group of individuals where ‘talent, energy and skills are integrated into a team, and this collective capacity to innovate becomes greater than the sum of individual contributions’”. Especially with regards to innovation and creativity, as explained in [Barczak, Lassk and Mulki's study \(2010\)](#), this definition views the group as a productive and inspirational unity capable of producing much more advanced and improved quality output than the members of the team individually. This is also recognised by employers when they look for potential employees capable of working in such groups. Acknowledging this expectation on the part of employers and the incorporation of this perspective in applied teaching approaches, this study adopts the last definition of ‘team’ for use in the scope of the present paper.

### Skills

In order to be able to cooperate successfully in teams, employees need to possess certain skills. The literature offers a number of classification systems of skills, and today the most widely used and accepted classification distinguishes between hard skills and soft skills ([Andrews & Higson, 2008](#)). Hard skills include any knowledge or ability that can be quantified and listed; on the other hand, soft skills – also

called people skills – include any skills that enable one to successfully communicate, interact and work jointly with other people. As this study is focalised on improving university students' cooperation skills, let us now turn our attention to successful cooperation at the workplace and the skills required for this.

### Cooperation skills and its constituent subskills

The majority of today's workplaces require their employees to solve mostly problem-based tasks at work as attested by studies conducted by the [Hart Research Associates \(2015\)](#) and the [Association of American Colleges and Universities \(2007\)](#). When doing so, the workforce typically performs in teams, for which activity members of the team have to cooperate with each other successfully and, as a team, must possess all the skills necessary for joint task execution including cooperation skills. As described by [von Davier and Halpin \(2013\)](#), cooperation skills are typically divided into subskills falling into two categories: cognitive (C) and non-cognitive subskills (NC).

(C) As for cognitive subskills, in their study about collaborative work culture, [Barczak et al. \(2010\)](#) list trust (C/1), openness (C/2) and consensus-seeking (C/3) as subskills, which are extended by [Jordan and Troth \(2004\)](#) with emotional intelligence (C/4) as another subskill.

(C/1) The literature offers several definitions of trust – also called interpersonal trust. The most widely-accepted definition of trust between individual team members is provided by [McAllister \(1995\)](#): trust encompasses to what extent team members are able to trust other members' words, actions and decisions, and how extensively they are capable of basing their actions on these. [McAllister \(1995\)](#) divides trust into two components: emotional trust and cognitive trust. The first describes how much a person feels a team member's empathy towards them and how much interest and care they receive from other members. Cognitive trust, on the other hand, describes to what extent it is possible to trust team members' professional knowledge and responsibility. The presence of a high level of interpersonal trust results in teams that are characterised by strong cohesion and harmonious relationships among team members, and the extent of such trust can be measured in terms of team members' willingness to cooperate.

(C/2) The second cognitive subskill, openness, as interpreted by [Barczak et al. \(2010\)](#), encompasses one's readiness to accept changes, the ability to see multiple perspectives and one's willingness to seek solutions to problems. The authors of the above study claim that openness is a vital aspect of collaborative work culture as team members cannot discuss or solve any issues without openness in their attitudes. In addition, openness is also a precondition to another characteristic feature of collaborative work culture: consensus-seeking. (C/3) [Barczak et al. \(2010\)](#) believe that consensus-seeking is of importance as far as team members' constructive cooperation is concerned. In fact, consensus-seeking will function as a cohesive force in the life of a team, and is capable of minimising, or at least reducing, the number and extent of



conflicts. This, in turn, positively contributes to healthy relationships among team members and to their successful job performance.

(C/4) The fourth cognitive subskill, emotional intelligence is described by Jordan and Troth (2004) based on Salovey and Mayer's (1990) work. Salovey and Mayer's (1990) model of emotional intelligence construct includes one's ability to monitor one's own and others' emotions, to discriminate among the positive and negative effects of emotion, and to use emotional information to guide one's thinking and actions. According to Jordan and Troth (2004), emotional intelligence is relevant in work environments as teams at work require effective control and regulation of emotions for maintaining well-functioning personal relationships among team members and for facilitating smooth execution of joint work.

(NC) For successful cooperative task completion in teams, teams must also possess non-cognitive skills, which – according to von Davier and Halpin's (2013) study – include mutual dependence (NC/1), leadership skills (NC/2), communication skills (NC/3), and other skills related to the nature of the cooperation in question (NC/4). These subskills are described in more detail below.

(NC/1) Mutual dependence refers to the fact that team members' actions depend on the actions of other members. Each team member is aware of, and accepts, this situation and state of interdependence partly to ensure successful cooperation. (NC/2) Next, leadership skills refer to those skills that are necessary for a person to manage and lead the work of a team. This includes awareness of one's role as leader, the ability to use the skills necessary for this role and people management to ensure effective team work. (NC/3) In addition, communication skills, which are indispensable for disseminating information, include efficient information transfer as well as the sharing, exchange and management of information in verbal and non-verbal communication situations related to group roles. (NC/4) Finally, other skills related to the nature of cooperation comprise diverse skills depending on the situation of the cooperation in question, and depending on which skills are necessary to realise group goals and to perform work. These other skills may include IT skills, time management skill, etc. All of the above skills and subskills as well as their potential development can be measured in the presence or lack of such skills, or the differences between the individual's developmental levels of said skills at various points of time.

### Cooperation at English for specific purposes classes

In today's post-method era of language instruction, the most extensively used groundwork for English for Specific Purposes (ESP) classes is the communicative framework of language teaching, which builds on intensive interaction between communicating partners. On the other hand, specific purpose language classes are mostly content-based and are typically structured around specific professional knowledge to be shared among participants. Both of these methods are heavily based on information exchange among students,

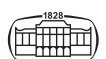
which prompts cooperation for the purpose of joint learning. For successful and effective cooperative learning, students must be trained for, and be provided with practice opportunities concerning, appropriate work processes and work organisation as Beigi and Shirmohammadi (2012) urge. Students' people skills must also be developed (as claimed e.g. by del Barco, Castaño, Lázaro, & Iglesias, 2015) because fruitful cooperation necessitates the appropriate use of these soft skills. Also, results of previous research (Kirschner, Paas, Kirschner, & Janssen, 2011) underlines that pair and group work as well as participation in project work aptly develop students' cooperation skills during language classes. Likewise, the development of teaching materials to be used in the scope of cooperative classes must also be devised so that they facilitate cooperation (Hijzen, Boekaerts, & Vedder, 2007).

### Previous research on cooperation and cooperative learning

This section offers a selective literature review on empirical studies on cooperation and cooperative learning. Han (2015), in an empirical study investigating cooperative learning, found that cooperative learning provides learners with environments where they are required to cooperate and communicate with each other to achieve their goals. This kind of interaction, in turn, improves cooperation skills. Han (2015) points out that in foreign language classes cooperation also helps learners improve general foreign language proficiency. In addition, previous studies on students' attitudes towards cooperation and cooperative learning (Cantwell & Andrews, 2002; Hansen, 2006; Peterson & Miller, 2004; Underwood, 2003) found that students' positive attitudes depend on numerous factors, these include: the types of tasks students are given, whether all group members are expected to participate in group activities, students' contribution to group work, and showing respect to one another when cooperating. In connection with participation, Underwood (2003) and Peterson and Miller (2004) point out that students object to having peers who do not contribute to group work.

In a higher education context, Hansen (2006) carried out a small-scale study ( $N = 34$ ) focusing on students' experiences of cooperation and cooperative learning, and found that for successful cooperation of group members the following are necessary: all group members should contribute with mutual effort, goals should be clearly set, and leadership should also be straightforward. In addition, there should be differentiation concerning roles among group members.

In the Hungarian context, Bánfi (2022) studied tutor-supported cooperative learning and concluded that this learning process can successfully be employed. Vastagh (2000) dealt with cooperative learning from the point of view of joint knowledge construction, and focused on teachers' roles as facilitators in the process. Several papers described empirical studies conducted in Hungarian settings: Benda (2002), Józsa and Székely (2004) as well as Pap-Szigeti (2007) have found that cooperative learning resonates well with and can effectively be used in Hungarian



educational contexts. Józsa and Székely (2004) also discussed the use of cooperative learning as a means of enhancing the effectiveness of the learning process.

### Portfolio research

Due to its meticulously developed and flexibly tailorable components as well as its underlying methodological considerations (Little, 2012; Nagai et al., 2020), the European Language Portfolio (ELP) offers a readily adaptable framework (cf. Carson, 2016; Gori, 2013; Schärer, 2011) for portfolio projects of the kind described in this study. As this research is about enhancing cooperation skills at university-level business English courses, the following brief literature review on portfolio research focuses on student autonomy, cooperation, project work and business English in connection with the ELP.

Forster Vosicki (2012) examined the systematic implementation of the ELP at an institutional level in higher education. She claims that the ELP aids students' personalised progress and development needs as well as develops learner autonomy. Pérez Cavana (2012) discusses the process of learning to learn with the help of the ELP framework in a tertiary-level context: the study concludes that an electronic version of the ELP promotes self-awareness in learning and self-regulation, as well as offers an active approach to learning. In a language learning focused research project aimed at sensitising university students to their language-related weaknesses and strengths using the ELP, Poppi and Radighieri (2009) encouraged students to assume increased responsibility for their own progress by using novel learning tools including ICT.

Kühn and Langner (2012) stress the aptness of the ELP for project work based learning activities. Using the ELP Negru (2009) completed research at a university level business English course with respect to listening skills and used "can do" descriptors to help students follow their progress. Csaki and Horn (2009) used the ELP portfolio to focus on writing skills development at a university level business English course. They turned course objectives into "can do" descriptors, which were foreseen to increase student motivation and facilitate self-monitoring of students' progress.

As a matter of fact, Hungarian research concerning the use of portfolios mainly concentrated on teacher education and language teaching in higher education. With respect to teacher education, the use of portfolio was seen as a means of documenting and presenting students' knowledge, experiences and competencies (Kis & Seres, 2017), while the use of portfolios was advocated for competence-based skills development (Vass, 2010). Gál, Hanák, and Keresztény (2012) developed a methodological guide to facilitate the use of portfolios in higher education, whereas Szivák (2010) described portfolios as a means of learning support in teacher training and, within it, in the development of reflective thinking. A handbook on methodological considerations of using portfolios was compiled by Falus and Kimmel (2003), who focused on the use of feedback as part of the learning process.

With respect to language teaching in the Hungarian context, Bánhegyi (2019) discussed theoretical issues regarding the use of portfolios as an alternative means of evaluation. In addition, Bánhegyi and Fajt (2020) examined university students' attitudes to using portfolios, and Bánhegyi, Fajt, and Dósa (2020) researched students' attitudes to the use of methodologically tailored portfolio projects. To the best of the knowledge of the present paper's authors, no research in the Hungarian context has been carried out concerning the improvement of university students' cooperation skills through foreign language learning centred portfolio projects.

### Portfolio applied in the present research

As attested by the literature and due to its diverse components, the ELP serves as an excellent example to follow for the purposes outlined in the present research for the following reasons: the ELP is capable of accommodating tasks that promote both cooperation and the development of business English. Also, as for its structure, the ELP is composed of the language passport (which aids self-assessment of one's current level of proficiency in languages), the language biography (which involves learners in their studies partly through encouraging autonomous learning by way of goal-setting and self-assessment), and the dossier (a selection of materials attesting learner achievement that also exhibits a wide range of skills and experiences including ones related to language learning and interculturality).

The student portfolios used in the present research mirrored the language biography and the dossier of the ELP but with altered content: students' biographies focused on cooperation skills, whereas their dossiers served as a collection of self-produced materials. Furthermore, the portfolio used in the scope of the present research served a dual purpose for course assessment: 1) the materials collected by the students in their dossier were used for coursework assessment and 2) the biography was used for the reflexive textual description of the development of cooperation skills and related experience. In fact, the present portfolio approach applied a mixed form of assessment: its language and professional content in the dossier were assessed by the course instructor to offer both formative and summative assessment, while the biography was used by the students to self-assess the development of their cooperation skills.

With this in mind, and in order to create opportunities for students to practice and develop – besides their ESP skills – their cooperation skills, the Department of Languages for Finance and Management at BBS FFA introduced an ESP portfolio at some of its ESP language classes in the autumn semester of 2019/2020. In addition to other elements, this portfolio – apart from providing a platform for students to demonstrate their ability to solve complex problems related to their studies (Dalziel, 2012) – contains tasks to be completed through cooperation in teams. Below, those tasks of this portfolio project, namely the graph analysis and the case study, are described in some detail that necessitate



students' cooperation in pairs or in groups of four for successful and timely task completion.

In the scope of the graph analysis task, which was to be completed in pairs, students were required to analyse a graph related to one of the topic areas covered during the course. The length of the text to be produced by students in the scope of this task was approximately 300 words. Students were required to outline the background of the graph's topic, identify and analyse trends visible in the graph, give some general details concerning the graph, and describe future tendencies based on the graph. For this task, the same score was awarded to collaborating students. With respect to the case study, to be completed in groups of four, students were to discuss a topic covered during the course, to introduce and analyse a business-related problem waiting to be solved, and invited to furnish their solution. In the scope of this task, students could, for instance, compile an analysis of, or could describe, some change or comparison concerning the life of a business and come up with their own solution to the problem described in their case study. The case study was to total 500–600 words, and for this task the same score was awarded to collaborating students.

As determined and necessitated by the nature of the above cooperative portfolio tasks, students were to use, among others, the following subskills during the successful completion of their portfolio projects: willingness to cooperate, mutual dependence, communication skills, leadership skills, IT skills and time management skills. In order to be able to assess what attitudes our students exhibited to portfolio tasks during the autumn semester of 2019/2020 in the scope of the portfolio project reported here, we conducted a study of our university students' attitudes towards cooperation.

The next sections provide a detailed account of the research methods used in this study. First, the research question is presented, to be followed by the description of the participants of the study. Then the questionnaire used for data collection is introduced along with the data collection procedures and methods of data analysis.

## METHODS

The main aim of this research project was to obtain insights into Hungarian university students' attitudes towards cooperation with their team members at ESP classes offered by BBS FFA, and to assess whether cooperative-purpose portfolio tasks would be positively received by the participants of our research, and thus predict whether such tasks would exert a positive affective effect on students' attitudes to the development of cooperative skills. Therefore, we decided to obtain an insight into our students' attitudes towards cooperation at the beginning of the autumn semester of 2019/2020, i.e. the term of using the portfolio project. In the scope of our investigation, we have formulated the following research questions:

- What are Hungarian university students' attitudes towards cooperation like?

- What are the main predictors of Hungarian university students' willingness to cooperate?

In order to find answers to the above research questions, we decided to use solely the quantitative paradigm, and used a questionnaire to collect data. This choice was motivated by the fact that quantitative data collection offers the potential of affording the performance of complex statistical analyses and future quasi-experimental investigations using the database compiled through quantitative data collection. The subsequent sections provide a detailed description of the participants of this study, the instrument used for data collection, the collection procedures and the analysis used in the present study.

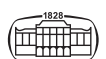
## Participants

The participants of this research project were recruited from BBS FFA through purposive sampling. The total number of participants was 49 ( $N = 49$ ). 45% ( $n = 22$ ) of our participants was male and 55% ( $n = 27$ ) of the participants was female. The average age of the participants was 21.94 ( $SD = 1.51$ ) with the youngest participants aged 20 and the oldest aged 26 years old. All participants were enrolled in BBS's Finance and Accountancy bachelor-level programme and attended the course titled *English for Finance and Accountancy* during the study period when the present study was conducted, i.e. the autumn term of the 2019/2020 academic year. At the university involved in the current research, the participants had no prior experience of compiling a portfolio and at university courses may have had only sporadic experience in working in groups different from the ones they worked in during the course in question.

## Instrument

The instrument was a self-constructed questionnaire developed by the two authors of this paper; the language of the questionnaire was Hungarian. The instrument was developed to gather quantitative data on the attitudes of the participants towards cooperation and thus the research instrument was administered at the beginning of the autumn semester of the academic year 2019/2020.

The questionnaire consisted of two main sections. The first section contained a set of 9 questions, which aimed to collect some background information about the participants. The second section consisted of 28 statements. Here the participants had to assess and evaluate, on a Likert-scale, to what extent they agreed with statements concerning selected aspects of cooperation. The scale ranged from 1, i.e. "I completely disagree" to 5, i.e., "I completely agree". This second section with a total of 28 statements is based on a selected set of subskills associated with team cooperation, as described in the literature review based on [Barczak et al. \(2010\)](#) and [von Davier and Halpin \(2013\)](#). For the purpose of conducting data collection, a pool of statements was initially created, which was then systematically grouped into broader categories (i.e. constructs along the above selected subskills). Altogether 7 constructs were used in the present



study. Below, these constructs are described in detail with a sample item for each construct.

1. *Willingness to cooperate* (3 items): the extent to which participants are willing to cooperate with their peers. Sample item: “If I can choose to work on a task alone or in a group, I prefer to work alone.”
2. *Mutual interdependence* (2 items): the attitudes of participants towards their dependence on peers and their willingness to mutually depend on one another. Sample item: “It is important for me that every team member gets an equal amount of work when we allocate tasks in my team.”
3. *Communication skills* (4 items): the extent to which participants find it important to continuously keep in touch with peers in order to maintain a professional discourse. Sample item: “It is important for me that during team work team members constantly discuss any arising professional issues.”
4. *Leadership skills* (3 items): the extent to which the members of a group are willing to let their peers lead and to what extent group members are able to recognize who has real and potential leadership qualities. Sample item: “When I work with others, I strive to make myself heard and have my say.”
5. *IT skills* (4 items): participants’ willingness to learn how to use the different digital devices required for effective cooperation and their expertise in this field. Sample item: “I consider it important that all members of the group have the appropriate technical and IT skills to successfully complete the task.”
6. *Time management* (4 items): how participants manage time in terms of meeting deadlines and making others observe deadlines. Sample item: “It is important to set such deadlines that are feasible for everyone.”
7. *Professional knowledge* (2 items): participants’ views on their own and their peers’ professional knowledge. Sample item: “I consider it important that team members have nearly the same level of expertise.”

## Data collection and data analysis methods

Data were collected in the middle of September 2019 through an online questionnaire designed in Google Forms. Our participants were informed that their partaking in the study was voluntary and – upon participation – their identity would not be traced back. The collected data were coded and exported to a Microsoft Excel file, which was then transferred into SPSS 27.0. For the analysis of the data, besides descriptive statistics (averages), correlational and regression analyses were used to identify relationships between scales. The level of statistical significance in each case was set at  $P < 0.05$ .

## RESULTS AND DISCUSSION

First, the reliability of the research instrument was ensured by testing its internal consistency. This was achieved by

Table 1. Reliability coefficients of the scales used in the study

Scales	Number of items	Cronbach's alpha
1. Willingness to cooperate	3	0.652
2. Mutual interdependence	2	0.562
3. Communication skills	4	0.623
4. Leadership skills	3	0.727
5. IT skills	4	0.651
6. Time management	4	0.616
7. Professional knowledge	2	0.684

calculating the Cronbach's alpha internal consistency reliability coefficients of the different scales (Table 1).

Six scales were found to be reliable as their Cronbach's alpha coefficient reached the 0.6 threshold (Dörnyei & Taguchi, 2010). The reliability of the scale Mutual interdependence remains slightly below the minimum value, so it may be concluded that this scale is yet to be fine-tuned; nevertheless, it was used in the present study as it is hypothesized by the authors that it also constitutes an important factor describing learners' attitudes towards cooperation. As a next step, the mean scores (M) and standard deviations (SD) were calculated for the scales and these are presented in Table 2.

The student response averages for statements 1 and 15 show that our participants prefer working in groups to working individually. It seems from the averages of student responses that our participants demonstrate relatively positive attitudes towards cooperation, which, as Barczak et al. (2010) point out, is essential for successful cooperation. The average for the second scale indicates that participants are willing to share responsibility with one another, and they prefer to share responsibility in an equal manner so that no one they cooperate with should have significantly greater workload as compared to that of other team members. These findings are in line with the findings of Underwood (2003) and Peterson and Miller (2004), who found that students are not likely to tolerate “free-riders”, i.e. people who do not contribute as much as others or as expected to group work. This is in line with the literature, which claims mutual interdependence is a prerequisite for successful joint work (von Davier & Halpin, 2013).

Table 2. Reliability coefficients of the scales used in the study

Scales	M	SD
7. Professional knowledge	4.74	0.42
6. Time management	4.29	0.60
2. Mutual interdependence	4.25	0.78
3. Communication skills	4.07	0.59
5. IT skills	3.96	0.63
1. Willingness to cooperate	3.73	0.78
4. Leadership skills	3.50	0.67



As for communication skills, the relatively high mean scores indicate that participants find it important to keep in contact with their peers during the cooperation process to ensure smooth and efficient execution of team work. In the case of leadership skills, the relatively high mean score suggests that, in line with the findings of previous research (Hansen, 2006), participants view leadership skills as a relatively relevant subskill for joint work. It is also evident from Table 2 that, as far as IT skills are concerned, participants do not mind using digital devices when cooperating with their peers. This finding is not surprising as the participants of this study are digital natives, i.e. they have no or not much difficulty using diverse state-of-the-art technological smart devices. Furthermore, most likely, participants are also willing to learn to use new digital devices and tools if this is required for successful cooperation. The average of student responses for the scale Time management clearly demonstrates that our participants find it important to make joint and possibly unanimous decisions on deadlines: in other words, they strive to meet deadlines and expect their peers to do so, too. The mean score for the last variable, Professional knowledge suggests that participants find it equally important that all members of a group contribute according to the best of their capabilities, the importance of which Hansen (2006) underlines. The data concerning professional knowledge also imply that students find professional knowledge relevant when it comes to joint project completion, the importance of which Hansen (2006) also discusses.

As demonstrated by the averages reported in Table 2 – indicating students’ initial positive attitudes towards the subskills of willingness to cooperate, mutual interdependence, communication skills, leadership skills, IT skills, time management and professional knowledge as well as students’ recognition and awareness of the importance of these subskills –, the portfolio tasks applied for the purpose of improving cooperation skills in the scope of the present research are likely to be favourably received by students and are thus potentially capable of effectively developing such skills and subskills in students.

As a third step, relationships among scales were investigated by running correlational and regression analyses. Table 3 presents significant correlations among the scales: only correlations where  $P < 0.001$  are reported here. Table 3 also shows that the relationship between willingness to

Table 4. Results of Regression Analysis Regarding Willingness to Cooperate

Variable	B	SE B	$\beta$
Communication skills	0.56	0.17	0.42*
$R^2$		0.18	
F for change in $R^2$		10.22	

Note. B stands for regression coefficient. \* $P < 0.05$   
 SE B – standard error associated with the coefficient.  
 $R^2$  – stands for the proportion of variance in the dependent variable explained by the independent variables.  
 $\beta$  – standardized coefficient.

cooperate and communication skills is relatively high and this is the only variable with which willingness to cooperate correlates. Interdependence, on the other hand, also correlates with three other variables, namely leadership skills, IT skills, and time management. Not surprisingly, there exists a relationship between these variables, as leadership skills require mutual interdependence and time management, too. In the case of communication skills, there is a strong correlation between professional knowledge and communication skills, and, finally, there is also a relationship between leadership skills and IT skills.

As a next step, predictors of Willingness to cooperate were identified by running multiple regression analyses with a stepwise approach.

Table 4 summarizes the results of these analyses and shows that from the six scales, only one, Communication skills have a significant impact on participants’ Willingness to cooperate. In fact, the explanatory power of this regression model is relatively low (18%), therefore it may be concluded that even though these results are in line with the results of correlational analyses presented in Table 3, these variables do not necessarily describe adequately participants’ willingness to cooperate. It would be intriguing, therefore, to investigate why the other variables do not have any impact on students’ willingness to cooperate. Maybe other non-cooperation related variables, such as second language learning motivation and anxiety could be incorporated in a potential future investigation, as these variables may be crucial in describing willingness to cooperate with peers in the second language learning environment of a university-level classroom.

Table 3. Significant correlations among scales

	1	2	3	4	5	6	7
1. Willingness to cooperate	1						
2. Mutual interdependence		1					
3. Communication skills	0.42		1				
4. Leadership skills		0.37		1			
5. IT skills		0.29		0.30	1		
6. Time management		0.50				1	
7. Professional knowledge			0.57				1



## CONCLUSION

Comparing and contrasting the results of this research with the prerequisites of successful cooperation listed by [von Davier & Halpin, 2013](#), it may be concluded that, with a view to the portfolio tasks used in the scope of this research, our participants show fundamentally positive attitudes towards cooperation and the related subskills. Based on the results, it is recommended that group-specific attitudes to cooperation should be gauged and potentially improved before portfolio-related cooperation tasks are used in the classroom. It is likewise important that teachers maintain and reinforce students' initially positive attitude to cooperation when requesting students to engage in portfolio-related cooperation tasks. Based on the findings, it can also be assumed that course instructors may have a potentially positive impact on the group dynamics and effectiveness of teams by assigning certain students into specific teams or groups depending on their attitudes towards cooperative tasks: this assignment may help the formation of more effectively functioning groups with fewer conflicts. The prerequisite of this is that course instructors should know their students enough to be able to successfully manipulate the composition of groups and teams. The questionnaire presented in this study may also function for a means of this.

It is also evident from the data that participants find it important to consult one another on a regular basis: therefore, the communication channels and platforms of this activity should be ensured by the instructor. On the other hand, however, receiving peers' criticism is still an area to be improved. This issue is also noted and acknowledged in the literature ([Cantwell & Andrews, 2002](#); [Hansen, 2006](#); [Peterson & Miller, 2004](#); [Underwood, 2003](#)). Given these findings, certain parts of the portfolio could be modified in a manner which requires students to provide regular feedback to one another in tactful and effective ways (e.g. through using pre-designed student feedback forms, etc.).

The data analysis also revealed that students do not necessarily wish to lead the team unless group dynamics requires changes in the leading position of the team. Therefore, students' leadership skills should be further practised and improved, potentially with the help of portfolio tasks. Furthermore, participants do not expect all members to have the very same level of professional knowledge or IT skills, but they expect all group members to contribute to the completion of tasks to their best knowledge. This necessitates that the teacher should closely monitor group activities during the completion of the portfolio project to ensure equal contribution by team members. Finally, students unanimously agreed that deadlines are important and possibly all deadlines should be agreed upon by all group members. Teachers' monitoring may again prove helpful here. Based on these observations, it is recommendable that the portfolio approach used at BBS in the future should emphatically focus on the development of the following subskills: willingness to cooperate, leadership skills, IT skills, time management and professional knowledge.

These data seem to prove that BBS FFA's students are open to completing portfolio tasks improving their cooperation skills; these results reinforce the findings of previous research ([Farahian & Avarzamani, 2018](#)) concerning the positive impact of portfolios on students' willingness to cooperate with one another. When designing future portfolio projects, the above findings could be borne in mind and tasks can further be improved accordingly. At the same time, group-tailored portfolios can also be developed: depending on students' attitudes at the beginning of the course towards cooperation and their preferences of skills and subskills development, tasks for a term's portfolio can be selected and designed in line with such development goals. This requires the drawing up of a group profile concerning each student's level and developmental goal of cooperation skills at the beginning of the term: in turn, those students can be arranged in one group whose development goals match and complement one another. Thus, with the help of targeted and group-specific skills and subskills oriented portfolio tasks, such planned arrangement allows students to practise skills and subskills of their choice during the completion of their portfolio projects.

On a large scale and with respect to monocultural and multicultural groups engaged in cooperative tasks at a national or an international level, national and cultural attitudes to cooperation, communication, responsibility, leadership, digital devices, time management and professional knowledge should also be borne in mind when using and designing cooperative projects. Familiarity with such attitudes helps developing cooperative projects tailored to students' disposition and needs.

As all research, this project also has its limitations. The current research is limited by its sample size ( $N = 49$ ), which means that the findings are not representative. The findings, however, could be transferable to a broader professional context, and the study could be repeated with a larger sample size. Furthermore, as participants were aware of being part of this research project, some of the data may be distorted because of the social desirability bias, i.e. respondents answer certain questions the way they think they are expected to.

As for future developments of portfolio tasks, more cooperative components could be implemented in the portfolio so that students would be required to cooperate not only more extensively but in a more efficient manner: this way the success of the team would be highly dependent on team members' fruitful cooperation. Research concerning a new and improved portfolio of this kind is therefore desirable.

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