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# Student Teachers' Classroom Management Orientations and Their Beliefs on Effective Teaching Behaviour

**Abstract:** This study primarily explored student teachers' classroom management orientations, their beliefs regarding effective research-based teaching behaviours and the correlation of these variables. A sample of 238 future teacher students was considered. The results indicated that high-quality classroom management orientations correlated with students' positive beliefs regarding research-based effective teaching behaviours. The obtained results emphasised the importance of developing adequate attitudes of future teachers towards classroom management styles and effective teaching behaviours, which could significantly impact their teaching practices and the success of their future students' learning.

**Keywords:** classroom management, student teachers, effective teaching behaviours, initial teacher education

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## Introduction

Classroom management constitutes a major domain of teacher competence and effective teaching. It is based on the principle of establishing a positive classroom environment encompassing effective teacher–student and student–student relationships (Korpershoek et al. 2016), along with the way in which the teacher manages the time, activities, resources and expectations for learning. According to Martin and Baldwin (1993), teachers’ classroom management can be classified into three types: noninterventionist, interventionist and interactionist. The noninterventionist approach supposes that students have the inner capacity to control their own behaviours and make their own decisions for their personal growth, so teachers should be less involved in regulating student behaviours. The interventionist type posits that students’ growth and development is due to external regulations, whereas the interactionist type postulates that both teachers and students are responsible for students’ in-class behaviours (Quek et al. 2014). Martin et al. (2007) defined classroom management as a multidimensional construct comprising three comprehensive, independent components: instructional, people and behaviour management. Instructional management includes elements such as observing seatwork and organising daily activities. People management dimension highlights what teachers believe about students and what teachers can do to improve a positive relationship with students. Behaviour management entails preplanned means of avoiding misbehaviour and includes setting rules, establishing a reward structure, and providing opportunities for student input (Martin et al. 2007). These three dimensions create teachers’ classroom management styles and monitor their determination to achieve proper instructional objectives.

Marzano et al. (2003) conducted the most recent meta-analysis of effective classroom management. They found that the average number of classroom interruptions was lower in classrooms where effective classroom management strategies were used. They also highlighted four components of teachers’ effective classroom management: rules and procedures, disciplinary interventions, teacher–student relationships and mental set. They stated that clear rules and procedures, expressing the expected behaviours, mainly characterise effective teaching.

Contemporary teaching practices in the past few years have changed rapidly. It is increasingly characterised by student-centred approaches to learning, emphasising the development of students' critical thinking, life skills and self-regulated and cooperative learning. These changes have greatly impacted teachers' classroom management skills and way of teaching. They imply a well-trained teacher with a high level of education and skills for planning and organising the teaching process and classroom management. Moreover, there is a growing need for the teacher to be a reflective practitioner, rethink their practice, and continuously improve it. The teacher in contemporary teaching has a polyvalent function: organisational, planning, coordinating and pedagogical. In active learning, among many other roles (classroom management, organising and planning active learning strategies for students), one of the essential roles of the teacher is to be a learning facilitator. It means that teachers create favourable conditions for realising students' activities and support learning processes based on their personal experience.

Active learning comprises varying pedagogical procedures, including research-based learning, intended to stimulate the learner's critical thinking skills (Christersson et al. 2019). Research-based learning emphasises the student's role in the learning processes. Students are encouraged to ask questions, set up hypotheses, explore, analyse, solve problems, draw conclusions, and share new ideas. Instead of memorising facts, students learn by doing. It allows them to build knowledge through exploration, experience and discussion. To establish research-based learning, teachers should use an effective and adequate teaching strategy that encourages students to participate in research-based learning. This teaching strategy is research-based teaching. It introduces students to activities that require them to manage the research process by which, in addition to constructing their understanding of the world, students develop research skills and competencies of independent learning and communication skills. The value of such an approach is also evident because this way of teaching stimulates students' participation in research activities, encourages their natural curiosity, promotes scientific activity as an intellectual value and supports the scientifically perception of the world, natural and social phenomena (Keselman and Kuhn 2002).

Research-based teaching affects the quality of students' learning, their higher education experience, and the development of general skills. Literature shows that the process of research-based teaching motivates students to consistently develop an investigative attitude and create opportunities for knowledge acquisition conceptually, in addition to the development of important skills (Granjeiro 2019). Research skills are not learnt solely by observation but need to be taught, practised, and critiqued. Because of this, students interact more intensively with materials and other students during investigations. In addition to monitoring the learning taking place, teachers have to manage more the movement of materials and equipment and the social dynamics among students (Poon et al. 2009). To achieve research-based teaching goals, teachers should use appropriate classroom management strategies (Matias 2011).

In addition to classroom management, teachers' attitudes regarding research-based effective teaching behaviours may significantly impact their teaching.

Since both aspects affect teaching quality, the important question is whether both are correlated. According to Chambers (2003), it is important to identify teachers' classroom management style and determine its correlated factors. If teachers' beliefs on classroom management and effective research-based teaching are connected, classroom management modification can affect research-based effective teaching behaviours. Such training can help teachers become more effective in developing a positive classroom learning environment where students can learn through the research-based approach (Cerit 2011).

Establishing and maintaining quality classroom management to maximise students' learning experiences is a challenging task for preservice and novice teachers (Caner and Tertemiz 2015). In that context, understanding the belief structures of student teachers is important to improve their professional readiness in classroom management and research-based teaching (Garrett 2005).

Previous studies have shown that teachers' classroom management orientation and their beliefs on effective teaching behaviours contribute significantly to their teaching practices and decisions (Crow 1991; Martin 2004; Urich and Tobin 1989) and also affect students' learning and development (Wang et al. 1994). This study is based on the data gathered from the adapted form of the Attitudes and Beliefs on Classroom Control Inventory Questionnaire (ABCC) (Martin et al. 2007) and Teaching Behaviours Questionnaire (Marchant and Bowers 1990).

## **Objectives**

The aim of this study was to determine student teachers' classroom management orientations and beliefs regarding research-based effective teaching behaviours and the correlation of these two variables. The study seeks to answer three questions:

- What are student teachers' beliefs regarding classroom management as measured by the instructional, people and behaviour management dimensions?
- What are student teachers' beliefs regarding research-based effective teaching behaviours?
- Is there any connection between these beliefs?

## **Research hypotheses**

The following hypotheses are related to the objectives:

- Hypothesis 1: Student teachers' orientation is that classroom management must be connected considerably with people and behaviour dimensions and less with instructional dimensions.
- Hypothesis 2: Student teachers believe that research-based teaching behaviour towards pupils is relevant in the teaching processes, and they are cognizant that the teaching processes should be active and student-centred.

- Hypothesis 3: It is expected that student teachers' more positive orientations about successful classroom management are correlated with their more positive beliefs about effective research-based teacher behaviours.

## Methodology

### *Research method*

The research was conducted through a paper survey using two questionnaires for student teachers. Paper surveys are advantageous because they can generate much higher response rates than web questionnaires. Additionally, most respondents often believe that printed surveys are more anonymous than online surveys, thereby inducing the belief that respondents may be more honest filling out printed surveys. Furthermore, printed surveys have the same formatting, ensuring that all respondents receive the same format and setting the survey.

### *Sample*

A total of 238 (23 males, 9.9% and 215 females, 90.3%) students from two Croatian universities participated in the research. Also, 128 (53.8%) students were from the University of Zagreb (all students from the Faculty of Teacher Education), 110 students were from the Juraj Dobrila University of Pula (45 (18.9%) of them were from the Faculty of Educational Sciences, and 65 students (27.3%) were from the Faculty of Humanities and Social Sciences). These students came from different parts of the Republic of Croatia. All students were in the 3<sup>rd</sup> (n = 42; 17.6%), 4<sup>th</sup> (n = 138; 58%) and 5<sup>th</sup> (n = 58; 24.4%) years of their study. These students were selected because they were approaching the completion of their studies and would soon become teachers. Therefore, they could have more realistic answers on the questionnaire scales. Considering the secondary school of their graduation, 158 (66.4%) students completed gymnasium, 68 (28.5%) came from vocational schools, and 12 (5.1%) from technical schools. The sample of respondents is a non-probabilistic, appropriate sample.

### *Data collection*

The instrument was managed in study groups during regular lectures and filled out anonymously with the students' verbal consent. Completing the questionnaire took approximately 20 minutes.

### *Instrument*

The main research variables were two scales. The first scale was the Attitudes and Beliefs on Classroom Control Inventory Questionnaire (Martin et al. 2007) and the second was the Teaching Behaviour Questionnaire (Marchant and Bowers 1990).

The first 48-item instrument was based on a four-point Likert scale. Classroom management was structured in three subscales: 1) instructional management (IM)—which »refers to how teachers manage the instructional routines, including how teachers establish classroom procedures, manage seating, allocate learning topics and materials, and monitor homework submission« (Quek et al. 2014, p. 159) (e.g. *I believe that the teacher should direct the students' transition from one learning activity to another. Or when a student does not complete an assignment on time, I will assume that the student has a good reason.*); 2) people management (PM)—»refers to what teachers believe about students as persons and teachers' roles in nurturing students through teacher–student interactions« (Quek et al. 2014, p. 159) (e.g. *I believe that teachers should nurture and encourage student independence and self-expression. Or I believe that friendliness, courtesy and respect for fellow students are something that teachers should demand.*); and 3) behaviour management (BM)—»refers to the teachers' preplanned efforts that aimed to prevent misbehaviours, including facets such as teachers' beliefs about whether they should intervene in students' inappropriate behaviours, whether students' opinions should be considered in setting rules« (Quek et al. 2014, p. 159) (e.g. *When a student is repeatedly off task, I will most likely remove a privilege or require detention. Or I believe class rules are important because they shape the student's behaviour and development.*).

The second 36-item instrument was based on a four-point Likert scale and was structured in six subscales—each subscale contained six items (Marchant and Bowers 1990):

- Instructional design and structure—design of teaching process to achieve successful learning performance,
- Active teaching—interaction with students in the teaching process,
- Giving information—meaningful presentation of information to increase students' deeper understanding of teaching content,
- Questioning the students—asking questions to increase the involvement of all students in heuristic conversation and learning process,
- Reacting to student responses—reaction to the students' responses to develop students' skills and knowledge,
- Handling seatwork and homework assignments—creating tasks according to students' abilities.

### *Data analysis*

The study results were processed and presented using standard scientific-statistical methods, supported by the IBM SPSS Statistics 24 program package. The reliability of the questionnaire was measured with Cronbach's Alpha. For the first scale, it was 0.78, while for the second it was 0.73. Descriptive statistics were calculated, i.e., the arithmetic means and standard deviations of the subjects' responses on individual scales and subscales. The Pearson's correlation coefficient was calculated to determine the relevant link between variables (student teachers' opinions about classroom management orientations and their beliefs regarding research-based effective teaching behaviours).

### **Results and discussion**

The item with the highest mean value in the first scale (ABCC) is »I believe teachers should provide clear, specific feedback regarding the quality of student's work.« ( $M = 3.90$ ;  $SD = 0.33$ ), while the item with the lowest mean value is »When a student bothers other students, my first reaction would be to say nothing and let the students work it out themselves.« ( $M = 1.28$ ;  $SD = 0.64$ ). These are expected results. Teachers are expected to provide clear feedback to students on their progress and success and to react if the student interferes with the work of other students. Also it is important to develop evaluations' competence in teaching and in lifelong learning (Mrkonjić and Vlahović 2008). Learning assessment creates feedback that is used to improve students' performance. Students become more involved in the learning process, and from this gain confidence in what they are expected to learn to the required standard. Ultimately, feedback should help learners improve in a specific activity.

When feedback corrects or improves a piece of work, it is valued by learners and acts as an incredible motivator (Jones 2005). Further formative evaluation (evaluation during the teaching and learning process) is vital from the point of getting quick feedback, but unfortunately it is still absent in many teachers' teaching (Čajlaković and Okić 2019).

According to the student teachers' assessment, the item »I believe teachers should nurture and encourage student independence and self-expression« was ranked second ( $M = 3.86$ ;  $SD = 0.40$ ), and the item »I believe it is important to continuously monitor students' learning behaviour during seatwork« was ranked third ( $M = 3.73$ ;  $SD = 0.51$ ). The first belongs to IM, the second to PM, and the third to IM. Self-expression is the students' ability to promote their willingness and show individual peculiarity through creative work (Jagdag and Dembereldor 2017). It can be related to students' activities of conducting a self-study, such as assignments and independent projects. The important role of teachers is to support and encourage students' independence and self-expression in their learning, adopting teacher competencies to work with children with special needs and helping students with special needs (Kudek Mirošević 2018). However, teachers must also work with

gifted students (VanTassel-Baska and Stambaugh 2005; Schroth and Helfer 2008).

Items that were in the last places according to the student teachers' opinion belonged to the BM and PM dimensions »Student interaction should be kept to a minimum because it can easily lead to disruption in the classroom«, ( $M = 1.66$ ;  $SD = 0.82$ ), and then again to the BM dimension »I believe that class rules stifle the student's ability to develop a personal moral code«, ( $M = 1.92$ ;  $SD = 0.82$ ). Contemporary teaching should encourage interaction to help students acquire relevant competences for active participation in the community. Classes in which students have opportunities to communicate with each other help students effectively construct their knowledge. Some studies have shown that student-student interaction significantly contributes to academic achievement and social-personal gains (Sharan 1980; Johnson et al. 1981). Moreover, by agreeing on classroom rules, students will be brought up in a spirit of moral education, which has been neglected in most educational systems (Durkheim 2012).

Regarding the second scale (TBQ), the student teachers' opinion was mostly that »The teacher should convey a strong sense of enthusiasm to the students.« ( $M = 3.82$ ;  $SD = 0.44$ ), which belongs to the subscale *giving information*, while they answered the least that »The teacher should not use praise excessively in the classroom.« ( $M = 1.53$ ;  $SD = 0.63$ ), which belongs to the subscale *reacting to student responses*. Teacher enthusiasm is usually considered a special mode of delivering information to students. A teacher is perceived as being enthusiastic when he or she succeeds in communicating excitement about the subject to students (Keller et al. 2013). Teachers' enthusiasm certainly prompts student success (Sun et al. 2008; Kunter et al. 2013), and students can learn and acquire skills and form attitudes successfully. An enthusiastic teacher enriches the class with excitement, engages students to participate in classes, stimulates them to explore, and encourages their motivation to learn.

The other highest student teachers' answers belong to subscales *reacting to student responses* »The teacher should overtly acknowledge correct answers that a student gives to a question asked in class«, ( $M = 3.77$ ;  $SD = 0.48$ ), and to *active teaching* »The teacher should monitor the progress of each student daily«, ( $M = 3.69$ ;  $SD = 0.54$ ). Author Kramar (2006) highlighted the formative analysis of the teaching process based on feedback about the current course of teaching as a comprehensive analysis to provide a profound explanation of the realised didactic units of teaching. Here, high student teachers' responses related to subscales responding to students' responses and active teaching can be interpreted by the nature of the teaching job in the teaching process. Moreover, in the ABCC questionnaire, student teachers showed a high level of agreement with statements of similar content.

The items that were considered least belonged to *reacting to student responses* »The teacher should continue to the next scheduled unit when performance is poor, and in the future the teacher should avoid material similar to that which the students had problems with«, ( $M = 1.58$ ;  $SD = 0.87$ ), and to *questioning the students* »The teacher should immediately call on a student after asking a question in class«, ( $M = 1.72$ ;  $SD = 0.79$ ). The student should have an opportunity in the teaching process. This implies that she/he can reflect and that she/he can analyse



the question to give the right answer. The teacher, however, cannot simply go on with the content of the subject until it becomes clear to the students what she/he has just taught, so results like this are expected.

Descriptive statistics of the ABCC and TBQ subscales are shown in Table 1.

|      | Min   | Max   | M (S) | SD (S) | M    | SD   |
|------|-------|-------|-------|--------|------|------|
| IM   | 57.00 | 92.00 | 68.95 | 5.66   | 3.00 | 0.55 |
| PM   | 25.00 | 40.00 | 32.98 | 2.45   | 3.30 | 0.68 |
| BM   | 34.00 | 60.00 | 43.86 | 3.95   | 2.92 | 0.74 |
| IDS  | 12.00 | 24.00 | 16.55 | 2.21   | 2.76 | 0.57 |
| AT   | 13.00 | 24.00 | 18.05 | 2.19   | 3.01 | 0.59 |
| HSHA | 13.00 | 24.00 | 17.24 | 2.67   | 2.87 | 0.71 |
| QS   | 12.00 | 24.00 | 16.89 | 1.89   | 2.81 | 0.83 |
| RSR  | 9.00  | 23.00 | 14.03 | 2.62   | 2.34 | 0.94 |
| GI   | 10.00 | 24.00 | 17.60 | 2.21   | 2.93 | 0.69 |

Table 1: Descriptive statistics of ABCC and TBQ subscales

Legend:

IM—Instructional Management Dimension

PM—People Management Dimension

BM—Behaviour Management Dimension

IDS—Instructional Design and Structure

AT—Active Teaching

HSHA—Handling Seatwork and Homework Assignments

QS—Questioning the Students

RSR—Reacting to Student Responses

GI—Giving Information

As shown in Table 1, in the ABCC questionnaire, the PM dimension had the highest value of arithmetic mean regarding the other subscales in this questionnaire ( $M = 3.30$ ;  $SD = 0.68$ ). The IM dimension was ranked second ( $M = 3.00$ ;  $SD = 0.55$ ), and the BM dimension was third ( $M = 2.92$ ;  $SD = 0.74$ ). These results show that student teachers have a greater tendency towards classroom management strategies, which are directed towards respecting students as persons and that they reflect on the teachers' role in nurturing students through high-quality teacher–student interactions. It means that students are likely to create a pleasant classroom atmosphere and develop teacher–student relationships full of mutual respect and esteem. Such an approach, influenced by the social cognitive theory, refers to teachers' attempts to be sensitive to students' needs for relatedness through showing friendliness, care, support and respect to their students (Nie and Lau 2008). The value of the arithmetic mean of students' answers in the IM

( $M = 3.00$ ;  $SD = 0.55$ ) and BM ( $M = 2.92$ ;  $SD = 0.74$ ) subscales shows that the claims in these subscales are also mainly related to their way of teaching but less than claims related to the PM dimension. Findings partly support the first hypothesis. Student teachers' orientations are connected considerably with PM, but they are not strongly connected with the BM and IM dimensions.

TBQ subscale descriptive statistics show that student teachers agree the most with the items in the *active teaching subscale* ( $M = 3.01$ ;  $SD = 0.59$ ), which highlights that teachers should be actively interacting and involved with as many students as possible. These results indicate that future teachers are aware that the teaching process should be student-centred. Findings support the second hypothesis. Domović and Vizek Vidović (2013) claimed that it is critical for students—future teachers to be student-centred and learning-oriented—and Bruff (2009) focused more on active learning, which includes research-based learning, and its effects/benefits in the teaching process and learning outcomes. The subscale *giving information* is ranked second by the value of the arithmetic mean ( $M = 2.93$ ;  $SD = 0.69$ ). Student teachers also mostly agreed ( $M = 2.87$ ;  $SD = 0.71$ ) that the teacher should plan worthwhile assignments that students can understand and complete (*handling seatwork and homework assignments subscale*). Student teachers estimated that the subscale *questioning the students* was ranked fourth ( $M = 2.81$ ,  $SD = 0.83$ ), and the subscale *instructional design and structure* ( $M = 2.76$ ;  $SD = 0.57$ ) was fifth.

The subscale considered least is *Reacting to Student Responses* ( $M = 2.34$ ;  $SD = 0.94$ ), which shows that students, future teachers, generally disagree that teachers should respond to the students' answers in a way that helps participation and understanding of correct information. This result is a little surprising, but we can explain it with their lack of experience in teaching and insufficient knowledge of conducting heuristic conversations with students.

Since this study primarily investigated the correlation of variables—student teachers' classroom management orientations and their beliefs regarding research-based effective teaching behaviours—the Pearson coefficient ( $r$ ) was calculated based on the acquired results. Correlation was confirmed. This means that the student teachers' opinions about classroom management orientations and their beliefs regarding research-based effective teaching behaviours were correlated ( $r = 0.55$ ;  $p < 0.01$ ). The correlation was positive and of a moderate magnitude. This means that positive modification of classroom management could positively affect research-based effective teaching behaviours. These findings support the third hypothesis.

Moreover, teachers with more positive beliefs about research-based effective teaching are more likely to use appropriate classroom management strategies. The obtained result emphasises the importance of developing adequate attitudes and beliefs of future teachers towards classroom management styles and effective teaching behaviours, which could significantly impact their teaching practices and the successes of their future students' learning. Here, it should be noted that the correlation between the scales was expected because of their relatedness.

Based on the results within the measurement conducted by the ABCC instrument, the subscales (IM, PM and BM) demonstrated the highest correlations (from  $r = 0.42$  to  $r = 0.69$ ;  $p < 0.01$ ). Positive correlation between IM (teachers' management of the instructional routines, tasks and classroom procedures), PM (teachers' beliefs about students and teacher–student interactions) and BM (teachers' preplanned efforts to prevent misbehaviours) was expected because these three components construct classroom management dimensions and are the part of the same (ABCC) instrument. The highest correlation within this scale was the correlation among the IM and BM subscales ( $r = 0.69$ ;  $p < 0.01$ ). Student teachers who prefer IM are control-oriented and more focused on preventing misbehaviour, setting rules, reward structures, and providing opportunities for student input.

The results also show that all subscales and both scales correlate positively with each other, but there are greater correlations within each instrument (scale) (Table 2).

According to results within the second scale (TBQ), the correlation among subscales was positively correlated too (from  $r = 0.19$  to  $r = 0.45$ ;  $p < 0.01$ ). The highest correlation within the second scale was the correlation between the subscale *active teaching* and the subscale *handling seatwork and homework assignments* ( $r = 0.45$ ;  $p < 0.01$ ). The value of the correlation coefficient indicates the existence of a moderate correlation between these two subscales. This correlation was logical. Active teaching implies teacher's active interaction with students in monitoring their progress and success in solving seatwork and homework tasks. The teacher should tell the students what is expected of them, how they can get support and what they need to do when they finish their seatwork. Also the teacher should clarify the assignment and go over practice examples before the students work autonomously. Seatwork and homework should be challenging enough to constitute significant learning experiences but easy enough to allow students' success with realistic effort. Also, the teacher should be ready to provide re-teaching and additional tasks when students' performance is poor and does not meet the goals that are set in teaching process. Active teaching enhances many elements of student's learning, both in the immediate teaching process (Michael 2006; Paolini 2015) and in online learning (Salmon 2013).

The *active teaching subscale* is also moderately correlated with the subscale *instructional design and practice* ( $r = 0.40$ ;  $p < 0.01$ ). That means that teachers who prefer active teaching are more inclined to design lessons to increase the students' success rate and time interacting with the information to be learned and learning resources that will enable that.

| Variables | IM | PM     | BM     | IDS    | AT     | HSHA   | QS     | RSR    | GI     |
|-----------|----|--------|--------|--------|--------|--------|--------|--------|--------|
| IM        |    | 0.52** | 0.69** | 0.37** | 0.40** | 0.34** | 0.37** | 0.24** | 0.32** |
| PM        |    |        | 0.42** | 0.21** | 0.36** | 0.34** | 0.16** | 0.14** | 0.27** |
| BM        |    |        |        | 0.23** | 0.36** | 0.32** | 0.38** | 0.28** | 0.28** |
| IDS       |    |        |        |        | 0.40** | 0.35** | 0.28** | 0.35** | 0.33** |
| AT        |    |        |        |        |        | 0.45** | 0.32** | 0.31** | 0.39** |
| HSHA      |    |        |        |        |        |        | 0.19** | 0.22** | 0.29** |
| QS        |    |        |        |        |        |        |        | 0.32** | 0.30** |
| RSR       |    |        |        |        |        |        |        |        | 0.38** |
| GI        |    |        |        |        |        |        |        |        |        |

Table 2: Correlation matrix of ABCC and TBQ subscales ( $n = 238$ )

\*\* Correlation is significant at the 0.01 level (two-tailed);  $p > 0.01$

\* Correlation is significant at the 0.05 level (two-tailed);  $p > 0.05$

Active teaching implies teachers' active interaction with students when teachers present information in a way that promotes their understanding, and correlation between these two subscales was also moderate ( $r = 0.39$ ;  $p < 0.01$ ).

Among subscales of the first and the second instruments (ABCC and TBQ), the correlation was positively significant, and the range was from  $r = 0.14$  (very weak) to  $r = 0.40$  (moderate) ( $p < 0.01$ ). The student teachers' opinion was the most correlated among the subscales IM and *active teaching* ( $r = 0.40$ ;  $p < 0.01$ ). The value of the correlation coefficient indicates the existence of a moderate correlation between these subscales. Teachers who prefer IM are more prone to the belief that teachers should be actively interacting and involved with as many students as possible. That is the expected result because in research-based active teaching, teachers have to manage more procedures and learning materials and spend more time facilitating and monitoring students' work. Gage et al. (2018) emphasised that evidence-based classroom management practices include active instruction and supervision of students, opportunities for students to respond, and feedback to students.

Considering the correlation between subscales ABCC and TBQ, it was evident that the correlations among subscale IM (ABCC) and TBQ subscales varied from  $r = 0.24$  (weak) to  $r = 0.40$  (medium) correlations. Other correlations were positive, too and for subscale PM (ABCC) and TBQ subscales were from  $r = 0.14$  (very weak correlation) to  $r = 0.36$  (weak correlation), and for subscale BM (ABCC) and TBQ subscales varied from  $r = 0.23$  to  $r = 0.38$ , which were weak correlations. The weakest correlation was between the PM and RSR subscales ( $r = 0.14$ ) and the PM and QS subscales ( $r = 0.16$ ).

## Conclusion

Research-based teaching concepts imply a teacher as a facilitator, mediator and initiator who stimulates students' curiosity and critical thinking skills, engaging them in posing relevant questions and solving problems. In research-based teaching, the teacher must support students' research spirit, curiosity and openness to new ideas. To achieve this, teachers need to create a supportive and positive environment. To realise such a challenging task, they should be equipped with practical classroom management competencies that support student-centred teaching and the students' active role in learning. Student teachers' attitudes and beliefs towards classroom management styles and effective teaching behaviours are fundamental because they significantly impact their future teaching practices. It is necessary to understand their beliefs to improve their professional readiness alongside work, including their readiness for effective research-based teaching. This study showed that student teachers have a greater tendency towards classroom management strategies that are directed towards respecting students as persons and nurturing students through teacher-student interactions (PM), which is the main precondition and integral part of efficient research-based teaching. They are also aware that the teaching process should be active and student-centred. The results also showed that classroom management orientations correlated with student teachers' positive beliefs regarding research-based effective teaching behaviour, and that student teachers who prefer IM, which refers to how teachers manage instructional routines, are more prone to believe that teachers should be actively interacting and involved with as many students as possible. Quality interactions between teachers and students will create positive relationships in the classroom and contribute to effective learning. Interaction with the teacher and other students stimulates students' senses and encourages them to learn creatively and innovatively.

These results provide faculties of teacher education with information that can help in determining their requests by detecting areas of strengths and weakness related to student teachers' support for successful teaching and classroom management behaviours. This kind of study could be conducted as a longitudinal study at various times throughout student teachers' training and practice to determine patterns of attitudes so that the training of future teachers could influence the development of their positive attitudes if necessary. It is also necessary to develop and implement effective teacher training programmes that will involve themes and hands-on experiences on effective classroom management and research-based teaching so that future teachers could implement those competences more efficiently and more confidently in their own teaching practice.

There are several limitations to this study. The data were collected among 238 student teachers whose beliefs may differ from the population at large. Future research is, therefore, desirable to replicate the results among larger samples. It is also important to specify that the ABCC and TBQ are instruments intended for measuring student teachers' attitudes and beliefs. The validity of these instruments would be increased in the future by comparing them with observational data. Despite these limitations, our results have implications for improving student

teachers' classroom management and effective research-based teaching beliefs and teacher education programmes, along with the quality of professional development for beginning teachers.

## References

- Bruff, D. (2009). *Teaching with classroom response systems: Creating active learning environments*. San Francisco: John Wiley & Sons.
- Čajlaković, M. and Okić, N. (2019). Evaluation in the educational process. *Knowledge International Journal*, 30, issue 2, pp. 301–305.
- Caner, H. A. and Tertemiz, N. I. (2015). Beliefs, Attitudes and Classroom Management: A Study on Prospective Teachers. *Procedia – Social and Behavioral Sciences*, 186, pp. 155–160.
- Cerit, J. (2011). The relationship between pre-service classroom teachers' self-efficacy beliefs and classroom management orientations. *Buca Faculty of Education Journal*, 30, pp. 156–174.
- Chambers, S. M. (2003). *The impact of length of students teaching on the self-efficacy and classroom orientation of pre-service teachers*. Paper presented at the Annual Meeting of the Southwest Educational Research Association (San Antonio, TX, February 13–15, 2003). Retrieved from: <https://files.eric.ed.gov/fulltext/ED477509.pdf> (accessed on 1. 6. 2020).
- Christersson C, Staaf P, Dakovic G., Peterbauer H. and Zhang T. (2019). *Promoting Active Learning in Universities. Thematic Peer Group Report*. Brussels: European University Association.
- Crow, N. (1991). *Personal perspectives on classroom management*. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL (Eric Document Reproduction Service No. ED 332959).
- Domović, V. and Vizek Vidović, V. (2013). Uvjerenja studentica učiteljskoga fakulteta o ulozi učitelja, učenika i poučavanju. *Sociologija i prostor*, 51, issue 3, pp. 493–508.
- Durkheim, E. (2012). *Moral education*. Mineola, New York: Dover Publications.
- Gage, N. A., Scott, T., Hirn, R. and MacSuga-Gage, A. S. (2018). The Relationship Between Teachers' Implementation of Classroom Management Practices and Student Behavior in Elementary School. *Behavioral Disorders*, 43, issue 2, pp. 302–315.
- Garrett, T. (2005). *Student and Teacher Centered Classroom Management: A Case Study of Three Teachers' Beliefs and Practices*, Unpublished doctoral dissertation. The State University of New Jersey. Pro Quest Information and Learning Company. UMI Number: 3170999.
- Granjeiro, E. M. (2019). Research-based teaching-learning method: a strategy to motivate and engage students in human physiology classes. *Advances in Physiology Education*, 43, pp. 553–556.
- Jagdag, D. and Dembereldor, Z. (2017). Study on the University Students' Self-expressive Tendency in Mongolia. *International Journal of Higher Education*, 6, issue 1, pp. 163–168.
- Johnson, D. W., Maruyama, G., Johnson, R., Nelson, D. and Skon, L. (1981). Effects of cooperative, competitive, and individualistic goal structures on achievement: A meta-analysis. *Psychological Bulletin*, 89, issue 1, pp. 47–62.

- Jones, C. A. (2005). *Assessment for learning*, London: Learning and Skills Development Agency.
- Keller, M., Neumann, K. and Fischer, H. E. (2013). Teacher enthusiasm and student learning. In: J. Hattie and E. M. Anderman (eds.). *Educational psychology handbook series. International guide to student achievement*. Routledge/Taylor & Francis Group, pp. 247–249.
- Keselman, A. and Kuhn, D. (2002). Facilitating Self Directed Experimentation in the Computer Environment. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.16.8607&rep=rep1&type=pdf> (accessed on 3. 2. 2021).
- Korpershoek, H., Harms, T., de Boer, van Kuijk, H. and Doolaard, S. (2016). A Meta-Analysis of the Effects of Classroom Management Strategies and Classroom Management Programs on Students Academic, Behavioral, Emotional, and Motivational Outcomes. *Review of Educational Research*, 86, issue 3, pp. 643–680.
- Kramar, M. (2006). Didaktička analiza u funkciji razvijanja kvalitete nastave. *Odgovorne znanosti*, 8, issue 1, pp. 107–132.
- Kudek Mirošević, J. (2018). Perception of Teachers and Expert Associates on the Application of the Individualized Approach in Working with Students with Disabilities. *Croatian Journal of Education: Hrvatski časopis za odgoj i obrazovanje*, 20, issue 3, pp. 133–155.
- Kunter, M., Klusmann, U., Baumert, J., Richter, D., Voss, T. and Hachfeld, A. (2013). Professional competence of teachers: Effects on instructional quality and student development. *Journal of Educational Psychology*, 105, issue 3, pp. 805–820.
- Marchant, G. J. and Bowers, N. (1990). *The Development and Uses of the Teaching Behaviors Questionnaire*. Meeting Paper. Retrieved from <https://files.eric.ed.gov/fulltext/ED303450.pdf> (accessed on 1. 6. 2020).
- Martin, N. K. and Baldwin, B. (1993). *Perspectives Regarding Classroom Management Style: Differences between Elementary and Secondary Level Teachers*. Paper presented at the Annual Meeting of the Southwest Educational Research Association, New Orleans. Retrieved from <https://files.eric.ed.gov/fulltext/ED393835.pdf> (accessed on 5. 6. 2020).
- Martin, S. D. (2004). Finding balance: Impact of classroom management conceptions on developing teacher practice. *Teaching and Teacher Education*, 20, issue 5, pp. 405–422.
- Martin, N. K., Yin, Z. and Mayall, H. (2007). The Attitudes and Beliefs on Classroom Control Inventory-Revised and Revisited: A Continuation of Construct Validation. *Journal of Classroom Interaction*, 42, issue 2, pp. 11–20.
- Marzano, R. J., Marzano, J. S. and Pickering, D. J. (2003). *Classroom management that works: Research-based strategies for every teacher*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Matias, A. (2011). *Using Classroom Management Strategies in an Inquiry Classroom, Education and Human Development*, Master's Theses. Retrieved from: [http://digitalcommons.brockport.edu/ehd\\_theses/55](http://digitalcommons.brockport.edu/ehd_theses/55) (accessed on 1. 6. 2020).
- Michael, J. (2006). Where's the evidence that active learning works? *Advances in physiology education*, 30, issue 4, pp. 159–167.
- Mrkonjić, A. and Vlahović, J. (2008). Vrednovanje u školi. *Acta Iadertina*, 5, issue 1, pp. 27–37.
- Nie, Y. and Lau, S. (2008). *Control and Care: The complementary roles in classroom management*. Paper presented in the 2008 Annual Meeting of the American Educational Research Association, New York. Retrieved from: [https://repository.nie.edu.sg/bitstream/10497/486/1/CORE\\_Conf08%28AERA%29\\_NieLau.pdf](https://repository.nie.edu.sg/bitstream/10497/486/1/CORE_Conf08%28AERA%29_NieLau.pdf). (accessed on 5.6.2020).

- Paolini, A. (2015). Enhancing Teaching Effectiveness and Student Learning Outcomes. *Journal of Effective Teaching*, 15, issue 1, 20–33.
- Poon, C. L., Tan, D. and Tan, A. L. (2009). Classroom Management and Inquiry-Based Learning: Finding the Balance. *Science Scope*, 32, issue 9, pp. 18–21.
- Quek, C. L., Liu, C., Kang, S., Wang, Q. and Nonis, D. A. M. (2014). Validation of attitudes and beliefs on classroom control inventory among beginning teachers in Singapore schools. *The Asia-Pacific Education Researcher*, 24, issue 1, pp. 157–168.
- Salmon, G. (2013). *E-tivities: The key to active online learning*. Abingdon, England: Routledge.
- Schroth, S. T. and Helfer, J. A. (2008). Identifying gifted students: Educator beliefs regarding various policies, processes, and procedures. *Journal for the Education of the Gifted*, 32, issue 2, pp. 155–179.
- Sharan, S. (1980). Cooperative learning in small groups: Recent methods and effects on achievement, attitudes, and ethnic relations. *Review of Educational Research*, 50, pp. 241–271.
- Sun, P. C., Tsai, R. J., Finger, G., Chen, Y. Y. and Yeh, D. (2008). What drives a successful e-Learning? An empirical investigation of the critical factors influencing learner satisfaction. *Computers & education*, 50, issue 4, pp. 1183–1202.
- Urich, S. L. and Tobin, K. (1989). *The influence of a teacher's beliefs on classroom management*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- VanTassel-Baska, J. and Stambaugh, T. (2005). Challenges and possibilities for serving gifted learners in the regular classroom. *Theory into practice*, 44, issue 3, pp. 211–217.
- Wang, M. C., Haertel, G. D. and Walberg, H. J. (1994). What helps students learn? *Educational Leadership*, 51, issue 4, pp. 74–79.

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## USMERJENOST BODOČIH UČITELJEV K VODENJU RAZREDA IN NJIHOVA PREPRIČANJA O UČINKOVITEM UČITELJSKEM VEDENJU

**Povzetek:** V prispevku so predstavljeni rezultati raziskave, katere namen je bil ugotoviti usmerjenost bodočih učiteljev k vodenju razreda, preveriti njihova prepričanja o učinkovitem učiteljskem vedenju in odnos med temi spremenljivkami. Raziskava je bila izvedena na vzorcu 238 študentov – bodočih učiteljev. Rezultati kažejo, da se ugotovljena pozitivna prepričanja študentov glede učinkovitega učiteljskega vedenja ujemajo z dosedanjimi raziskavami in usmeritvami za kakovostno vodenje razreda. Pridobljeni rezultati kažejo tudi na pomen razvijanja ustreznega odnosa bodočih učiteljev do stilov vodenja v učilnici in učinkovitega učiteljskega vedenja, kar bi lahko pomembno vplivalo na njihovo učiteljsko prakso in na učni uspeh njihovih bodočih učencev.

**Ključne besede:** vodenje razreda, bodoči učitelji, učinkovita učiteljska vodenja, začetno izobraževanje učiteljev

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