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# TEACHER EDUCATION STUDENTS' SELF-ASSESSMENT OF THEIR SOCIAL COMPETENCIES IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

***Abstract:*** *Social competence is an important outcome of education for sustainable development since the process of social learning contributes to real change. Sustainable development refers to development processes combining economic and social well-being and efficiency with environmental resilience and health, both here, now, elsewhere, and in the future.*
*Aim of the research was to examine students' self-assessment of social competence. A total of 127 students of the Faculty of Teacher Education in Rijeka participated in the research. A Scale of self-assessment of social competencies in the context of sustainable development was also constructed and validated. The analysis of scale identified three factors - Goal Orientation, Self-Expression and Global Competences.*
*The results of the research indicate satisfactory applicability of the constructed scales, but as this is preliminary research, therefore these conclusions should be handled with caution. The self-assessment of student social competencies was found to be from moderate to high. Although the results are not worrying, they indicate the need to enrich interpersonal skills fur future teachers to increase their confidence in their own performance.*

***Keywords****: attitudes, social competencies, students, sustainable development, teachers*

## INTRODUCTION

Sustainable development is a concept based on Our Common Future report, issued by the World Commission on Environment and Development (WCED) in October 1987, and includes a development that meets the needs of the present without compromising future generations to meet their own needs (WCED, 1987), i.e., organizing society in a way that enables its long-term existence (Mubtaker, 2020). Although the WCDE's definition is the most used, there are

a number of critics who believe that it is too general and does not offer overall understanding of the concept, thus becoming a political phrase everyone can agree on (Mebratu, 1998, Ročnević et al, 2008). However, there are two key concepts of this definition - the concept of needs which should be given priority and the idea of limiting the environment to meet current and future needs (Mebratu, 1998).

The implementation of sustainable development was given a definite form by the UN in 1992 conference in Rio de Janeiro by issuing Agenda 21, a comprehensive program prescribing action on local, national and global levels for a sustainable future. Agenda 21 in Chapter 36 identifies upbringing and education as a key factor in promoting sustainable development and improving the ability to address environmental and development issues (UN, 1993). Although education is not solely responsible for sustainable future, without it, sustainable future would be impossible.

Education for sustainable development is one of the biggest challenges humanity is facing because it requires preparation of present generations for the future, without knowing what that future will really be like. Robert Prescott-Allen (2011) compared progress towards sustainability to going to a country we haven't been before - we don't know what that place is like or how to reach it (Laininen, 2018). Education for sustainable development should prepare the individual for understanding and progressive sustainable action in a complex and uncertain environment and participating in socio-political processes by which one would act toward sustainable change, such as the preservation of the environment and natural resources or social and economic equality (UNESCO 2015; 2017).

Three global initiatives presented an important step in the implementation of Agenda 21: Millennium Development Goals (2000 – 2015), Education for All (2000-2015) and United Nations Literacy Decade (2003-2012), with the Decade of Education for Sustainable Development (2005 - 2014) as an additional contribution. It aimed at integrating sustainable development principles, values, and practices in all aspects of education, aiming to address social, economic, cultural and environmental problems. The Decade programme was followed by the Global Development Agenda 2030 (Agenda 2030) which represents an upgrade of the eight millennium development goals that marked the period up to 2015. The programme was adopted by the UN Member States on 25 September 2015 in New York, and includes seventeen goals of sustainable development that can only be achieved through strong global partnership and cooperation and education that enables socio-economic growth (UN, 2015). Sustainability is in the interest of a specific social actor – an individual, groups and institutions (Lay and Puđak, 2008), which is why the social competence of all involved is crucial for its realization.

## COMPETENCIES IN THE CONTEXT OF EDUCATION FOR SUSTAINABLE DEVELOPMENT

Organization for Economic Cooperation and Development (OECD) presented in 2018 a metric for comparing 'global competencies' of 15-year-old pupils, which is integrated in the Programme for International Student Assessment (PISA) in response to objectives of sustainable development. In addition to knowledge, cognitive values and skills, global competencies also include social skills and attitudes.

The responsibility for achieving the full potential of students lies in the expertise of the teacher, which is reflected in having general and specific knowledge, skills and attitudes, i.e., general and specific competencies, and the ability to apply them in practice. The role of the teacher is crucial in development of students' skills and work capacity necessary to improve social well-being and community development, i.e., to prepare students to participate in the community and future world. Previous research indicates that students of teacher education studies and educators recognize the importance of sustainable development and professional development in that area (Anđić and Ćurić, 2020; Anđić and Tatalović Vorkapić, 2017; Anđić, 2015; Borić et al., 2008; Vukelic et al., 2018), while on the other hand, they assess ethical values, emotional management and sustainability as less important (Anđić, 2017; Cvitković, 2018). Such results are confirmed by research results indicating that there is no systematic approach to education for sustainable development, and it is implemented only through individual initiatives (Kostović-Vranješ, 2016; Raditya-Ležaić and et al., 2018; Rončević et al., 2008).

Teachers spend more than half of their working day interacting with other people, which makes social competencies the core competencies responsible for their professional success (Kanning et al., 2012). Social skills are in the interest of all parties, and they are characterized by the fact that a person simultaneously achieves their own goals and respects the interests of other people. In educational institutions, social competencies are influenced by the learning environment in which the ability to communicate and collaborate with each other is emphasized (Gedvilienė, 2012). Leganés-Lavall and Pérez-Aldeguer (2016) explain that communication and collaboration involve teamwork skills, problem solving, decision making, facing challenges, establishing and maintaining relationships, self-control, assertiveness, responsibility, respect, creativity and critical thinking (Leganés-Lavall and Pérez-Aldeguer, 2016). Development of these skills is significant for enabling personal growth, self-esteem and respecting community-based human norms.

According to the recommendations of the European Parliament and the Council of Europe on Key competencies for lifelong learning (2006), individuals should master the following competencies during schooling: Communication

in the mother tongue, Communication in foreign languages, Mathematical and Science competences, Digital competence, Social and civic competences, Learning to learn, Cultural awareness and Sense of initiative and entrepreneurship. In doing so, Social and civic competences refer to ability to effectively participate in one's own social and working life and active and democratic participation in the community. Such an explanation of social competencies encompasses two perspectives – 'education for adulthood' perspective and an 'education for citizenship' perspective. The 'education for adulthood' perspective considers social competences as developmental construct and, as such, considers them as the outcome of the normal part of a child's development (Zwaans et al., 2006). This perspective refers to socially learned behaviour, knowledge, skills and attitudes that an individual has acquired in a particular social context and applies them in it. Emphasis is placed on interpersonal and intrapersonal components. When it comes to 'education for citizenship' perspective, the emphasis is placed on a person's ability to participate as a citizen in a democratic and multicultural social context, which includes critical reflection on the social balance, equality, and the interpretation of cultural differences (Zwaans et al., 2006).

The term "Sustainability Citizens", which is mentioned in the UNESCO document "Education for sustainable development: learning goals", describes a socially competent individual who participates responsibly and actively in social life (UNESCO, 2017). In doing so, sustainable development cannot be limited to only one perspective of social competencies and considers them as a whole. Although each perspective focuses on different elements of social competences, we realize that we can grasp the social dimension of sustainable development only if we perceive them as a whole. Therefore, Knippenberg et al. (2005) emphasize the need for data elaboration to assess the social aspects of sustainable development and sustainable interactions between social, economic and environmental areas.

In both domestic and foreign literature, we most often find studies on the social competence of children (Buljubašić Kuzmanović and Livazović, 2010; Dodge et al., 1986; Livazović, 2012; Martinson 2016), while little attention is paid to the factors that determine social competence of educational staff. Significant contribution to research on adult competencies was given by Annemieke Zwaans et al. (2006; 2016) and Uwe Peter Kanning and Christoph Herrmann (2012; 2015) who conducted detailed analyses of social competences and thus to a greater extent include the perspective of education for adulthood and the perspective of education for citizenship.

Analysis of the FIBEL questionnaire (ger. *Feedback Inventar zur berufsbezogenen Erstorientierung für Lehramtsstudierende*, engl. Teacher Training Feedback Questionnaire) resulted in 17 primary social competencies, summarized in four secondary factors: social orientation, dynamic and proactive

behaviour, self-control and reflective existence, which are recognized as being of special importance for success in teaching profession. This is a diagnostic tool for self-assessment intended for future teachers (Kanning and Herrmann, 2012), which data we have also used in the development of our measuring instrument.

The aim of this research was to examine the perception of students, future teachers, about their own social competencies in the context of sustainable development and to validate the constructed scale of social competencies. As this is a preliminary study, the results of the research are expected to further improve the instrument for measuring social competences in the context of sustainable development.

The tasks of the research were as follows:

1. Adjust and validate the developed social competencies scale.
2. Determine students' assessment of their own social competencies.
3. Determine students' attitudes about their own social competencies relative to the year of study.
4. Determine students' assessment of their own social competencies relative to the number of foreign languages they speak.
5. Determine the attitudes of students about their own social competencies relative to the size of the place they come from.

In accordance with the set research tasks, the following hypotheses were set:

H1 The compiled questionnaire is an objective, valid and reliable instrument for measuring social competencies in the context of sustainable development.

H2 Students highly value social competencies in the context of sustainable development.

H3 There is no statistically significant correlation between the year of study and social assessment competence in the context of sustainable development.

H4 There is no statistically significant correlation between the number of foreign languages students speak and the assessment of social competences in the context of sustainable development.

H5 There is no statistically significant correlation between the size of the student's place of residence and assessments of social competences in the context of sustainable development.

## METHODOLOGY

The research was conducted using an online questionnaire in October 2020 on a sample of 127 students of Teacher Education, Faculty of Teacher Education, University of Rijeka, Croatia. It was conducted in accordance with ethical principles and the completion of the questionnaire was anonymous and voluntarily. In the mentioned period, epidemiological measures to combat the COVID-19 epidemic were in place in the Republic of Croatia, making it difficult to determine the total number of students.

First-year students account for the largest part of the sample, N = 40. A total of N = 20 of the second-year students were examined, N = 3 of third-year students, N = 35 of the fourth-year students and N = 28 of the fifth-year students. All students stated that they speak English and a majority of students were women, N = 121, which is why English language proficiency and gender are not included as variables.

For the purposes of this research, a special questionnaire was constructed. The questionnaire consisted of the introductory part which, in addition to sociodemographic data, contained the question of knowledge of foreign language and a scale for assessing social competences from the context of sustainable development. The scale for assessing social competencies from the context of sustainable development was constructed with the aim of assessing social competence of students, future teachers, and it contained 29 items based on which the participants assessed their attitudes on a 5-point Likert scale, where 1 indicates 'Strongly disagree' and 5 'Strongly agree'.

FIBEL questionnaire items (Kanning and Herrmann, 2012) were used for the construction of questionnaire. In order to reach the variables that measure social competence of the teaching profession, authors Kanning and Herrmann have used a research approach, since there is no solid theory on social competencies. They conducted the research in four steps - the first was an interview with teachers to generate situations crucial to success in everyday working life.

Competencies were grouped into 10 dimensions that were measured using FIBEL: organizational skills, complexity of perception, ability to work under pressure, motivation for innovation, self-expression, self-confidence, assertiveness, willingness to cooperate, prosociality, willingness for education. In the second step, two empirical studies were conducted to reduce the number of dimensions, and in the third and fourth steps, surveys were conducted to verify validity of the questionnaire and its standardization. Finally, exploratory factor analysis, varimax rotation, was conducted, and 3 factors were obtained based ten dimensions - 1. Calm and fair interaction within the classroom, 2. Behaviour in the school context and 3. Positive impact on control of social processes in school. Those variables which showed the highest loadings on each dimension of the FIBEL questionnaire were used in the construction of our

questionnaire and were supplemented with variables that describe the dimensions of prosocial behaviour, willingness to teach, willingness to cooperate, perception of relationships, motivation to motivate, ability to work under pressure, self-confidence, organizational skills, self-expression and assertiveness. A total of 17 variables of the FIBEL questionnaire was taken over and adapted and they were assigned the SK code.

Given that cultural diversity and intercultural education contribute to social aspects of sustainability (Bogović and Čegar, 2012) in addition to the above variables, the questionnaire included 12 variables relating to intercultural education and attitudes about social and environmental risks, and which were taken over and adapted from the PISA Global Competences Questionnaire (2018). Variables were labelled OR, and are formulated to focus on the attitudes and values from teacher positions*: OR24 I have confidence in my ability to act and influence the results of activities in achieving the goal (work towards the goal), OR8 I make decisions in a democratic way, including age equality and considering different perspectives, OR31 I am able to look at the environmental, economic and social problems in general and understand their consequences, OR32 I can predict the long-term impact of human actions in the future, OR19 I solve conflicts that have arisen non-violently (negotiation, finding a compromise, ...), OR28 I will present different intercultural perspectives to my students to encourage inclusion within the classroom, OR10 I gladly participate in various social and civic actions, OR29 I can understand different intercultural perspectives of my students, OR9 I like discussing ideas with colleagues from different areas, OR17 I am capable of understanding social events at the national and international level, OR13 I am willing to accept suggestions from others, SK16 I am capable of performing as open, spontaneous, witty and an resourceful person in front of a group of people without ignoring my opinion on topics* and *OR30 I think the world would work better if there were fewer different cultures.*

Prior to data processing, the variables "*SK21 I feel stressed when I know I have a few things to do during the day*" and "*OR30 I think the world would function better if there were fewer different cultures*" were recoded from 1-5 to 5-1, where 5 signified the greatest disagreement and 1 the greatest agreement. The obtained data were processed statistically in SPSS Statistics programme.

## RESULTS AND DISCUSSION

To determine the measured characteristics of the instrument used, measures of internal coexistence of the scale of social competencies and its 29 items were examined through Principal Components Analysis (PCA). Suitability of data for factor analysis was assessed prior to PCA implementation. The value of the Cronbach's alpha coefficient was calculated to be $\alpha = 0.836$, or standardized Cronbach's alpha $\alpha = 0.847$. By reviewing the correlation matrix many coefficients with values equal to or higher than 0.3 were detected. In the continuation of the research, the assumptions of data adequacy for factor analysis were tested using the Kaiser-Meyer-Olkin measure (CMO) and the Barlett sphericity test. The Kaiser-Meyer-Olkin sample suitability measure was satisfactory (KMO = .692), and the Barlett test sphericity confirmed the adequacy of data for factor analysis ($\chi 2 = 134{,}182$, df = 406, p <, 000). Also, the individual KMO measures for each individual item were higher than the value of the coefficient 0.3. The obtained results indicate the factorality of the correlation matrix.

The analysis of the main factors revealed the presence of nine factors with characteristic values over 1, which explains variants 20.8%, 8.9%, 6.96%, 6.3%, 5.8%, 5.3%, 4.6%, 4.2% and 3.7%. The results of the parallel analysis confirmed 5 factors, whose values exceed threshold values obtained using an equally large random number matrix (29 items x 127 respondents). Examination of the Screen Plot determined the existence of a breaking point behind the fifth factor. Based on Cattell criteria it was decided to keep the five-factor solution for further research which explains 49.8% of the variance.

To determine the latent structure of the Social Competence Scale, a factor analysis was conducted with oblique rotation of factor axes (oblimin rotation) and factor extraction by maximum likelihood method the solution of which pointed to a smaller number of factors due to small item number and low loadings. This was followed by gradual analyses in which the items that have disrupted the factor structure and content validity of the factors were removed. The following items were removed: "*SK11 I always listen to people who come to tell me their problems*","*OR13 I am willing to accept suggestions from others*" and "*OR19 I solve conflicts that have arisen non-violently*".

Testing of data adequacy assumptions for factor analysis was performed using the Kaiser-Meyer-Olkin measure (CMO) and the Barlett sphericity test. The Kaiser-Meyer-Olkin measure of sample suitability is satisfactory (KMO = .712), and the Barlett test sphericity confirms the adequacy of data for factor analysis ($\chi 2 = 1169{,}273$, df = 325, p <, 000).

The clearest and purest structure was obtained based on 26 items and three extracted factors. The explained variance based on the three factors was 31.2%: 5,731 explained 22%, 2,409 explained 9.3% and 1,886 explained 7.3% of the variance.

There was a weak correlation between the first and second factor (r12 = 0.159), and between the third and other two correlation factors were mean negative (r13 = -0.351, r23 = 0, -318). High correlation indicated the justification for the use of oblique rotation of factor axes (oblimin rotation) because the factors are not independent.

The final factor structure is shown in Table 1.

**Table 1**. Factor analysis results

| Items | Factorial loadings | | |
|---|---|---|---|
| | **1** | **2** | **3** |
| SK20 Many people say I am an organized person | **,787** | ,054 | -,100 |
| SK25 I am capable of structuring and organizing everyday life in a reliable manner; including activities, tasks, meetings, etc. | **,698** | ,015 | -,020 |
| OR24 I have confidence in my ability to act and influence the results of activities in achieving the goal (work towards the goal) | **,632** | -,012 | -,183 |
| SK23 I am able to concentrate on my work and work without interruption, coping with different tasks without feeling any pressure | **,601** | -,034 | -,015 |
| SK22 Whenever I decide to achieve something, I manage to achieve my goal | **,550** | ,090 | -,245 |
| SK21_rec I don't feel stressed when I know I have a few things to do during the day | **,444** | -,024 | ,126 |
| OR30_rec I don't think the world would function better if there were not so many different cultures | **,298** | ,014 | ,025 |
| OR10 I gladly participate in various social and civic actions | ,113 | **,682** | -,036 |
| SK7 I enjoy working in a team | ,011 | **,665** | ,276 |
| SK14 I like being in the center of attention | -,189 | **,522** | -,134 |
| SK26 I like trying new things | -,110 | **,422** | ,079 |
| OR9 I like discussing ideas with colleagues from different areas | ,120 | **,370** | -,135 |
| SK15 During the discussion, I am able to convince the opposite side of my own opinion | -,047 | **,362** | -,107 |
| OR17 I am capable of understanding social events at the national and international level | ,109 | **,334** | -,004 |
| SK16 I am capable of performing as open, spontaneous, witty and resourceful person in front of a group of people without ignoring my opinion on topics | ,164 | **,321** | -,187 |

**Table 1**. (continued) Factor analysis results

| Items | Factorial loadings | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| OR31 I am able to look at the environmental, economic and social problems in general and understand their consequences | ,167 | **,278** | -,213 |
| SK12 I am able to observe and recognize interpersonal relationships, internal processes and relationship structures, and use that information to predicted behavior and avoid conflicts | -,153 | ,131 | **-,640** |
| OR32 I can predict the long-term impact of human actions in the future | ,085 | -,045 | **-,631** |
| SK33 I can teach students about latent (hidden) demands of society with the goal of achieving the individual sense of responsibility | ,119 | ,005 | **-,625** |
| OR28 I will present different intercultural perspectives to my students to encourage inclusion within the classroom | ,038 | -,010 | -,521 |
| SK6 I can predict well how others will behave in certain situations | -,006 | -,046 | **-,486** |
| OR29 I can understand different intercultural perspectives of my future students | -,104 | ,029 | **-,409** |
| SK18 I am able to stand behind my opinion and interest in the situations of disagreement and opposition without violating social norms of behavior | ,172 | -,003 | **-,400** |
| OR8 I make decisions in a democratic way, including age equality and considering different perspectives | ,202 | ,141 | **-,346** |
| SK34 The teacher should pay attention to the shaping of students' social skills | ,223 | ,014 | -,238 |

The variables "*SK20 Many people say that I am organized person*" (=, 787) and "*SK25 I am capable of structuring and organizing everyday life in a reliable manner; including activities, tasks, meetings, etc*" (=, 698) had the greatest loading based on the first factor, meaning they describe it most closely in terms of content.. The variables OR24 (=, 698), SK23 (=, 632), SK22 (, 601), SK21 (, 550) had a medium loading on the first factor. The variable SK21_rec (=, 444) and the variable OR30_rec (=, 298), classified under the first factor, had low loading. The variables that entered the first factor dominantly describe organizational skills, ability to work under pressure and self-efficacy, so the first factor is called the "*Goal Orientation*" factor. By checking the internal agreement of the variables in the first factor, the Cronbach's alpha coefficient is calculated, which is α = .401; standardized α =, 513.

Based on the second factor, the factorial loadings were mediocre and low. The greatest loading was observed with the variables "*OR10 I gladly participate in various social and civic actions*" (=, 682) and "*SK7 I enjoy working in a team*" (=, 665). The variables that entered the second factor describe the will for participation, extroversion, innovation and assertiveness, therefore the second factor is called "*Self-expression*." Internal agreement of variables in the second factor, Cronbach's alpha coefficient, is α = .727; standardized α = .725.

On the third factor, loadings were mediocre and low. The variables "*SK12 I am able to observe and recognize interpersonal relationships, internal processes and relationship structures, and use that information to predict behaviour and avoid conflicts*" (= -, 640), "*OR32 I can predict the long-term impact of human actions in the future*" (= -, 631)," *SK33 I can teach students about latent (hidden) demands of society with the goal of achieving the individual sense of responsibility*" (= -, 625) and "*OR28 I will present different intercultural perspectives to my student to encourage inclusion within the classroom*"(= - , 521), had the highest loading based on the third factor, while the variables SK6 (-, 486), OR29 (-, 409), SK18 (-, 400), OR8 (-, 346) and variable SK34 (-, 238) had low loading. The variables that entered the third factor primarily describe the prediction of behavioural actions, intercultural perspectives, and community action so the third factor is called "*Global Competencies*". Cronbach's alpha coefficient of the Global Competence factor is α = .763; standardized α = .763.

Table 2 shows the arithmetic means and standard deviations of the three obtained dimensions of social competences and Cronbah alpha reliability coefficients for each subscale and their mutual correlations. From the values of the Cronbah alpha coefficients we notice that all subscales showed satisfactory levels of reliability. Also, positive correlations were found in the estimated dimensions of goal and self-expression, and negative correlations in dimensions of global competencies.

**Table 2.** Descriptive indicators: arithmetic means (M), standard deviations (SD) of the answer, Cronbach's alpha reliability coefficients and correlations for all subscales

| Factor | Average | | Cronbach alpha | Correlations between the Subscales | | |
|---|---|---|---|---|---|---|
| | M | SD | | Goal Orientation | Self-Expression | Global Competences |
| Goal Orientation | 3,86 | ,473 | ,513 | 1 | ,159 | -,351 |
| Self-Expression | 3,74 | ,466 | ,725 | ,159 | 1 | -,318 |
| Global Competences | 3,96 | ,373 | ,763 | -,351 | -,318 | 1 |

The three factors obtained indicate the existence of three separate dimensions of social competencies from the angle of sustainable development which, in addition to encompassing global competencies, include factors of self-expression and goal-orientation that are recognized as the other two dimensions of social competencies. The results are high based on all three dimensions; thus we can conclude that students assess that they are socially competent to a great extent. These results are significant because teaching is a process of interpersonal communication between its constituent entities, and the quality of social competencies is a significant factor in realization of the teaching process.

The second research task determined the students' attitudes about social competencies in the field of sustainable development. Table 3 shows the arithmetic means (M), standard deviations (SD), range (minimum, maximum) and measures of skewness and kurtosis.

**Table 3**. Descriptive statistics

| Item | M | SD | RANGE | | SKEWNESS | | KURTOSIS | |
|---|---|---|---|---|---|---|---|---|
| | | | min | max | value | SD | value | SD |
| SK34 The teacher should pay attention to the shaping of students' social skills | 4,91 | ,31 | 3 | 5 | -3,76 | ,21 | 14,84 | ,43 |
| SK11 I always listen to people who come to tell me their problems | 4,80 | ,49 | 3 | 5 | -2,42 | ,21 | 5,15 | ,43 |
| OR19 I solve conflicts that have arisen non-violently | 4,77 | ,60 | 2 | 5 | -3,11 | ,22 | 10,42 | ,43 |
| OR13 I am willing to accept suggestions from others | 4,57 | ,62 | 3 | 5 | -1,15 | ,21 | ,26 | ,43 |
| OR29 I can understand different intercultural perspectives of my future students | 4,57 | ,70 | 2 | 5 | -1,60 | ,21 | 2,13 | ,43 |
| OR8 I make decisions in a democratic way, including age equality and considering different perspectives | 4,54 | ,60 | 3 | 5 | -,95 | ,21 | -,08 | ,43 |

**Table 3**. (continued) Descriptive statistics

| Item | M | SD | RANGE | | SKEWNESS | | KURTOSIS | |
|---|---|---|---|---|---|---|---|---|
| | | | min | max | value | SD | value | SD |
| SK18 I am able to stand behind my opinion and interest in the situations of disagreement and opposition without violating social norms of behavior | 4,47 | ,60 | 3 | 5 | -,67 | ,21 | -,49 | ,43 |
| SK27 I am motivated to use opportunities and possibilities to act and adjust things to improve them | 4,29 | ,68 | 3 | 5 | -,44 | ,21 | -,80 | ,43 |
| SK26 I like trying new things | 4,26 | ,77 | 2 | 5 | -,80 | ,21 | ,15 | ,43 |
| SK12 I am able to observe and recognize interpersonal relationships, internal processes and relationship structures, and use that information to predict behaviour and avoid conflicts | 4,24 | ,66 | 3 | 5 | -,32 | ,21 | -,75 | ,43 |
| OR9 I like discussing ideas with colleagues from different areas | 4,20 | ,76 | 2 | 5 | -,79 | ,21 | ,53 | ,43 |
| OR31 I am able to look at the environmental, economic and social problems in general and understand their consequences | 4,10 | ,75 | 2 | 5 | -,40 | ,21 | -,47 | ,43 |
| SK25 I am capable of structuring and organizing everyday life in a reliable manner; including activities, tasks, meetings, etc. | 4,02 | ,87 | 1 | 5 | -,93 | ,21 | 1,59 | ,43 |

**Table 3**. (continued) Descriptive statistics

| Item | M | SD | RANGE | | SKEWNESS | | KURTOSIS | |
|---|---|---|---|---|---|---|---|---|
| | | | min | max | value | SD | value | SD |
| OR30_rec I don't think the world would function better if there were not so many different cultures | 3,98 | 1,22 | 1 | 5 | -1,08 | ,21 | ,26 | ,43 |
| SK7 I enjoy working in a team | 3,91 | 1,12 | 1 | 5 | -,89 | ,21 | ,19 | ,43 |
| SK33 I can teach students about latent (hidden) demands of society with the goal of achieving the individual sense of responsibility | 3,89 | ,81 | 2 | 5 | ,02 | ,21 | -1,08 | ,43 |
| OR24 I have confidence in my ability to act and influence results of activities in achieving the goal (work towards the goal). | 3,87 | ,79 | 2 | 5 | -,34 | ,21 | -,23 | ,43 |
| SK20 Many people say I am an organized person | 3,85 | 1,08 | 1 | 5 | -,84 | ,21 | ,13 | ,43 |
| SK6 I can predict well how others will behave in certain situations | 3,78 | ,57 | 3 | 5 | ,00 | ,22 | -,29 | ,43 |
| OR32 I can predict the long-term impact of human actions in the future | 3,71 | ,80 | 2 | 5 | ,38 | ,21 | -,99 | ,43 |
| SK22 Whenever I decide to achieve something, I manage to achieve my goal | 3,68 | ,86 | 1 | 5 | -,68 | ,21 | ,56 | ,43 |
| SK16 I am capable of performing as open, spontaneous, witty and resourceful person in front of a group of people without ignoring my opinion on topics | 3,54 | 1,11 | 1 | 5 | -,71 | ,21 | -,05 | ,43 |

**Table 3**. (continued) Descriptive statistics

| Item | M | SD | RANGE | | SKEWNESS | | KURTOSIS | |
|---|---|---|---|---|---|---|---|---|
| | | | min | max | value | SD | value | SD |
| SK15 During the discussion I can convince the opposite side of my own opinion | 3,27 | ,83 | 1 | 5 | -,37 | ,21 | ,53 | ,43 |
| SK23 I am able to concentrate on my work and work without interruption, coping with different tasks without feeling pressure | 3,15 | 1,08 | 1 | 5 | ,08 | ,21 | -,88 | ,43 |
| SK14 I like being in the center of attention | 2,35 | 1,09 | 1 | 5 | ,47 | ,21 | -,28 | ,43 |
| SK21_rec I don't feel stressed when I know I have a few things to do during the day | 2,30 | 1,14 | 1 | 5 | ,72 | ,21 | -,09 | ,43 |

Students agreed to a greater extent or in full on almost all variables. The highest arithmetic mean had the variable "*SK34 The teacher should pay attention to the shaping of social student skills*" on which most students completely agreed (M = 4.91, SD = 0.31). Such a result indicated that future teachers recognize the importance of social completeness of students for future life. Also, the result is in line with research conducted by other authors (Buljubašić Kuzmanović, 2010; Kostović Vranješ and Ljubetić, 2008; Zrilić, 2010; Zwaans et al., 2006) who state that all teachers, regardless of the school context, promote social development of their students as an educational goal.

There was a mediocre agreement on the variables "*SK23 I am able to concentrate on work and work without interruption, coping with different tasks without feeling pressure* " (M = 3.15, SD 1.08) and "*SK15 During the discussion, I am able to convince the opposite side of my own opinion*" (M = 3.27, SD 0.83). A slightly lower score on the first variable was expected because the citizens of the Republic of Croatia faced great challenges caused by epidemiological situation, the transition to an online form of work and earthquakes, floods and other natural disasters. This assumption is grounded and related to recent research results (Li et al., 2021; Obradović and Dmitrović, 2021; Pandey et al., 2020) which found that the number of students struggling with stress and emotional difficulties has increased in the last year.

The lower score on the variable „*SK15 During the discussion I can convince the opposite side of my own opinion*" is explained by the possible students' misunderstanding of the difference between the terms "discussion" and "quarrel". Namely, the terms discussion and quarrel are often used as synonyms, although they are not. While the term quarrel has a negative connotation and signifies discussion without respecting the interlocutor, a discussion is a conversation in which one explains one's own views while respects the opinion of the interlocutor (Jurčić, 2010). Discussion is a communication skill implemented as a teaching method already in the lower school grades, which is why it is important to be adopted. Lower results on the variable SK15 indicate the need for greater implementation of the discussion in the teaching processes, to enable the individual to state an argumentative opinion.

The variables "*SK21_rec I don't feel stressed when I know I have a few things to do during the day*" (M = 2.30, SD = 1.14) and "*SK14 I like being in the center of attention*" (M = 2.35, SD = 1.10) had the lowest arithmetic mean. Such results are again explained by external factors that affect everyday life. In the future research, one should try to avoid negative connotations that occur in the variable "*I like being the center of attention*" and compare the obtained results.

In order to determine whether the assessment of competence differs based on the factors *Goal Orientation, Self-expression* and *Global competencies* according to the year of study of the respondents, a nonparametric substitution of one-way ANOVA with independent groups was performed: Kruskal-Wallis test. It was found that there is no statistically significant difference in the Goal orientation factor ($\chi 2$ (4, N = 127) = 1,805, p> 0.05), Self-Expression factor ($\chi 2$ (4, N = 127) = 1,136, p> 0.05), nor the Global Competence factor ($\chi 2$ (4, N = 127) = 4,360, p> 0.05), relative to the year of study of the respondents, that is, that the respondents felt equally competent regardless of the year of study. We can assume that students do not recognise the assessed social competencies in the study curriculum and consider them as developmental abilities they acquire through everyday life, which is why the year of study has not significantly contributed to the difference in the assessment of their own competencies. The obtained results are different in relation to self - assessment of sustainable development competencies and self-assessment of the value of sustainable development which were examined by previous research (Anđić and Ćurić, 2020; Anđić, 2015; Cvitković, 2018; Vukelić and et al., 2018). Namely, research has shown that during the completion of compulsory teacher education, students assess increased social sensitivity, nonviolent communication skills, interaction, etc., which is contrary to the results obtained by the results.

Knowledge of foreign languages was tested by an open-ended question in which students entered all foreign languages they speak. It was found that all students (100%) speak English language, while a smaller number of students

speaks Italian (26.8%), German (24.4%), French (3.9%), Slovenian (2.4%) and Spanish (2.4%), and only some students indicated they speak languages such as Ukrainian (0.8%) and Czech (0.8%).

Considering the knowledge of foreign languages per respondent, it was found that 53.5% of respondents speak one foreign language, 32.3% two foreign languages, 13.4% speak three foreign languages and 0.8% speak four foreign languages.

Villegas and Lucas (2002). proved that students learn more from teachers who teach in culturally and linguistically diverse classrooms than from those with more didactic approach (Keengwe, 2016). With that in mind, we wondered if there was a statistically significant difference in the assessment of social competences between students who speak several foreign languages.

In order to determine whether the assessment of competence differs in terms of factors *Goal Orientation, Self-expression,* and *Global competencies* relative to the number of languages the respondent speaks, non-parametric substitution of one-way ANOVA with independent group was once more performed: Kruskal-Wallis test (Table 4).

**Table 4**. Assessment of competency on factors Goal Orientation, Self-expression, and Global competencies according to the number of foreign languages the respondent speaks

| Factor | No. of languages | N | C | $Q_{3-1}$ | $AS_{rang}$ | Min | Max | χ2 (df) | p |
|---|---|---|---|---|---|---|---|---|---|
| Goal Orientation | 1 | 68 | 3,78 | 0,71 | 58,43 | 2,43 | 4,71 | 9,637 (3) | 0,022 |
| | 2 | 41 | 4,00 | 0,57 | 66,28 | 3,29 | 4,71 | | |
| | 3 | 17 | 4,29 | 0,71 | 84,29 | 3,43 | 4,57 | | |
| | 4 | 1 | | | 4,00 | | | | |
| Self-Expression | 1 | 68 | 3,60 | 0,50 | 52,29 | 2,60 | 4,60 | 15,394 (3) | 0,002 |
| | 2 | 41 | 3,90 | 0,65 | 75,55 | 3,10 | 5,00 | | |
| | 3 | 17 | 4,2 | 0,55 | 82,65 | 3,10 | 4,80 | | |
| | 4 | 1 | | | 70,00 | | | | |
| Global Competences | 1 | 68 | 3,89 | 0,67 | 59,93 | 2,89 | 4,89 | 3,070 (3) | 0,381 |
| | 2 | 41 | 4,00 | 0,39 | 69,04 | 3,11 | 4,78 | | |
| | 3 | 17 | 4,00 | 0,56 | 70,24 | 3,56 | 4,67 | | |
| | 4 | 1 | | | 28,00 | | | | |

The Kruskal-Wallis test determined that there was no significant difference in the factor of *Global Competence* relative to the knowledge of foreign languages the respondent speaks ($\chi2$ (3, N=127) = 15,394, p>0,05). A statistically

significant difference was found in the remaining two factors relative to the knowledge of foreign languages, and it is described below.

It was found that there is a statistically significant difference in terms of the *Goal Orientation* factor relative to the knowledge of foreign languages ($\chi 2$ (3, N=127) = 9,637, p<0,05). Thereby, the number of languages the respondents speak reflects the mean share of variance ($\eta 2 = 0.0765$) in terms of the result of the *Goal Orientation* factor, indicating a significant correlation between the variables.

Multiple comparisons were performed by the Mann-Whitney U test with Bonferoni correction for alpha error control. It was found that there is a statistically significant difference between the respondents who speak one foreign language in relation to those who speak three foreign languages (U = 359.00, z = -2.42, p <0.05), where the respondents who speak one foreign language ($C_1$=3,79, $Q_{3-1}$=0,71) assigned a lower point to the goal orientation factor than the respondents who speak three foreign languages ($C_3$=4,29, $Q_{3-1}$=0,71). Language was found to have a small effect size (r = -0.21).

Also, a statistically significant difference was found between the respondents who speak two foreign languages compared to those who speak three foreign languages (U = 231.00, z = -2.02, p <0.05). Respondents who speak two foreign languages ($C_2$=4,00, $Q_{3-1}$=0,57 assigned a lower point to the factor goal orientation than respondents who speak three foreign languages ($C_3$=4,29, $Q_{3-1}$=0,71). A small effect size of the language (r = -0.18) was noticed. As for the other groups, no statistically significant differences were found.

Analysis of the *Self-Expression* factor showed that there was a statistically significant difference relative to knowledge of foreign languages ($\chi 2$ (3, N=127) = 15,394, p<0,05). The number of languages respondents speak indicates a significant correlation between the variables, that is, it reflects the mean share variance ($\eta 2 = 0.1222$) for the result of the Self-expression factor.

Multiple comparisons using the Mann-Whitney U test with Bonferoni correction for alpha error control were again performed which found statistically significant difference between respondents who speak one foreign language compared to those who speak two foreign languages (U = 882.50, z = -3.209 p <0.05). Respondents who speak one foreign language ($C_1$=3,60, $Q_{3-1}$=0,50) assigned a lower point to the self-expression factor than respondents who speak two foreign languages ($C_2$=3,90, $Q_{3-1}$=0,65). A small effect size of the number of foreign languages was observed for the Self-Expression factor (r = -0.27).

In addition, a statistically significant difference was observed between respondents who speak one foreign language compared to those who speak three foreign languages (U = 305.50, z = -3.00, p <0.05). The respondents who speak one foreign language ($C_1$=3,60, $Q_{3-1}$=0,50) assigned a lower point to the *Self - expression* factor than the respondents who speak three foreign languages

($C_3$=4,2, $Q_{3-1}$=0,55) thereby asserting a small effect size of the language (r = -0.28).

Finally, no statistically significant difference was found between the remaining groups.

The results suggest a difference in the assessment of competencies based on social factors Competence *Self-expression* and *Goal Orientation* in students who speak more than one foreign language, ie multilingual students as opposed to students who speak only one foreign language. The factors *Self-expression* and *Goal Orientation* predominantly describe organizational skills, innovation, willingness to participate and extroversion, and relevant research precisely support the benefit of multilingualism in terms of attention (Bak et al. 2016 according to Mehmedbegović-Smith, 2020), respect for others and self-expression (Račić, 2013). Based on the above, we can conclude that multilingualism in this sense, should be one of the educational goals through which the individual will affirm himself professionally and personally (Račić, 2013).

In order to test the third hypothesis, i.e. the difference between self-assessment of student's competencies given the size of the place the student comes from, an open-ended question was formed in which the students entered the name of the place by themselves. Each place was subsequently marked as large, medium size or small place, according to the data from the 2011 census. Thus, "large place" refers to cities with a population of 45,000 or more, 'medium size place' to cities with 20,000 to 45,000 inhabitants, and small place to all cities that have less than 20,000 inhabitants. It was found that 52% of respondents come from a large place, 4% from medium size place and 44% from small place. The nonparametric substitution of one-way ANOVA with independent groups: Kruskal-Wallis test and it was found that there is no statistically significant difference in the *Goal Orientation* factor ($\chi^2$ (2, N=127) = 0,119, p>0,05), *Self-Expression* ($\chi$2 (2, N=127) = 0,823, p>0,05) *and Global Competences* factor ($\chi$2 (2, N=127) = 0,209, p>0,05) according to the size of the place from which the respondents come from (p> 0.05).

The difference between self-assessment of competencies with respect to site size was examined with assuming that larger cities offer more opportunities for the development of different intercultural and civic competencies and that respondents from larger places will assessed themselves as more competent in relation to respondents from smaller places. However, although the results showed no difference, they should be taken with caution because they are obtained on a small non-uniform sample.

## CONCLUSION

The results of the research indicated the applicability of the constructed scales. However, since this is preliminary research conducted on a small sample, these conclusions should be made extremely carefully. It is recommended to increase the sample in the future research in order to be more representative and to make the results more significant. Also, further upgrades of the measuring instrument itself are needed. A questionnaire set up like this can be the basis for further development of research on teachers' social competencies, therefore we can conclude that the first hypothesis is partially confirmed.

Another research task was to determine students' attitudes about their own social competencies. The arithmetic means on the assessment of one's own social competencies were high for the factor *Goal Orientation* (M = 3.86, SD = 0.473), the factor *Self-Expression* (M = 3.74, SD = 0.466) and the *Global Competence* factor (M = 3.96, SD = 0.373) thus confirming the second hypothesis.

The third and fifth hypotheses were confirmed, because the research showed that the year of study of the respondents and size of their place of residence are not associated with a higher assessment of social competence of students.

The fourth hypothesis has been partially confirmed - Students who speak multiple languages assess themselves as more competent compared to students who speak a smaller number of foreign languages. Namely, research has shown that there is a connection between students who speak three foreign language and *Goal Orientation*, in relation to students who speak one and two foreign languages, whereby students who speak three foreign languages assigned a higher point to a goal-oriented factor. Also, students who speak two and three foreign languages assigned a higher point to the *Self-Expression* factor than students who speak one foreign language. Given that sustainable development has both local and global component, their ability to inform, understand and access information related to global events, interrelationships and trends is higher. It is possible that respondents with poorer knowledge of foreign languages feel more limited and localized and, due to the component of knowing global relationships, except those interpreted through languages they speak, they consider that they have less competencies compared to those who speak more foreign languages. This opens up space for further research due to the possible connection of social competencies from the context of sustainable development and language competence and emphasizes the importance of multilingualism in the context of their own development and lifelong learning.

Finally, social competence is not something new, it stems from metacognition, that is, knowledge and the ability to observe the process within oneself and one's reactions, and this was the basis of the ancient educational systems in ancient Greece, Rome, China, India, etc. which stemmed from religion and

self-knowledge. Without the ability to observe the process within oneself, any further development and reaction towards other people is impossible. The impact of the educational programme needs to be recognized and the possibility of further empowering future teachers in this field, especially in their practical application should be supported, because a sustainable future is not possible without education of socially competent teachers who educate future citizens.

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## REFERENCES

Anđić, D. (2015). Doprinosi razvoju kompetencija učitelja osnovnih škola u odgoju i obrazovanju za održivi razvoj. *Napredak: Časopis za pedagogijsku teoriju i praksu*, *156*(4), 367–383. https://bib.irb.hr/prikazi-rad?&rad=801341

Anđić, D. (2017). Contribution to the Development of Kindergarten / Preschool Teachers' Competences for Education for Sustainable Development in Preschool Institutions. *Hrvatski časopis za odgoj i obrazovanje, 19*(3), 213–232. https://doi.org/10.15516/cje.v19i0.2712

Anđić, D. and Ćurić, A. (2020). What are the attitudes of future teachers about sustainable development in Croatia? Validation and adaptation of the attitudes toward sustainable development scale. *Proceedings of ICERI2020 Conference* (str. 1448-1457). IATED. https://doi:10.21125/iceri.2020.0374

Anđić, D. and Tatalović Vorkapić, S. (2015). Kako mjeriti održivo ponašanje? Adaptacija i validacija upitnika o održivom ponašanju. *Revija Za Sociologiju*, *45*(1), 69–97. https://doi.org/10.5613/rzs.45.1.3

Anđić, D. and Tatalović Vorkapić, S. (2017). Teacher education for sustainability: the awareness and responsibility for sustainability problems. *Journal of Teacher Education for Sustainability*, *19*(2). 121-137. https://doi:10.1515/jtes-2017-0018

Bogović, N. D. and Čegar, S. (2012). Education principles in a model of strong sustainability. *Problems of Education in the 21st Century*, *44*, 10-19. http://www.scientiasocialis.lt/pec/node/729

Borić, E, Jindra, R. and Škugor, A. (2008). Razumijevanje i primjena sadržaja cjeloživotnog učenja za održivi razvoj. *Odgojne znanosti*, *2*(16); 315-327. https://hrcak.srce.hr/29572

Buljubašić-Kuzmanović, V. (2010). Socijalne kompetencije i vršnjački odnosi u školi. *Pedagogijska Istraživanja*, *7*(2), 191–201. https://hrcak.srce.hr/118097

Cvitković, E. (2018). *Održivo ponašanje budućih učitelja* [diplomski rad, Sveučilište u Rijeci]. Repozitorij Filozofskog fakulteta Sveučilišta u Rijeci. https://urn.nsk.hr/urn:nbn:hr:186:514859

Dodge, K., Pettit, G., McClaskey, C., Brown, M. and Gottman, J. (1986). Social Competence in Children. *Monographs of the Society for Research in Child Development*, *51*(2), I-85. https://doi:10.2307/1165906

Jurčić, M. (2010). Nastavni kurikulum kao poticaj razvoju socijalnih kompetencija učenika. *Pedagogijska Istraživanja*, *7*(2), 205–217. https://hrcak.srce.hr/118090

Kanning, U. P. and Herrmann, C. (2012). Measuring social competencies in the teaching profession - development of a self-assessment procedure. *Journal Für Bildungsforschung Online*, *4*(1), 140–154. https://doi: 10.25656/01:7055

Keengwe, J. (2016). *Handbook of Research on Promoting Cross-Cultural Competence and Social Justice in Teacher Education*. IGI Global Online Bookstore. https://doi.org/10.4018/978-1-5225-0897-7

Knippenberg, L., Edelmann, E. and Hermans, F. (2005). Shaping the social dimension of sustainable development. In S. van den Burg, G. Spaargaren, H. Waaijers (ed.), *Wetenschap met beleid, beleid met wetenschap (str.* 64-68). Wageningen, the Netherlands: Wageningen Universiteit. https://www.researchgate.net/profile/Frans-Hermans-3/publication/254871461_Shaping_the_social_dimension_of_sustainable_development/links/548562030cf283750c37138c/Shaping-the-social-dimension-of-sustainable-development.pdf

Kostović-Vranješ, V. (2016). Inicijalno obrazovanje i profesionalno usavršavanje učitelja usmjereno prema osposobljavanju za promicanje obrazovanja za održivi razvoj. In N. Mihaljević (ed.) *Zbornik radova Filozofskog fakulteta u Splitu* (str. 166–188). Filozofski fakultet u Splitu. https://hrcak.srce.hr/154589

Laininen, E. (2019). Transforming Our Worldview Towards a Sustainable Future. In J. W. Cook (ed.), *Sustainability, Human Well-Being, and the Future of Education* (str. 161–200). Springer International Publishing. https://doi.org/10.1007/978-3-319-78580-6_5

Lay, V. and Puđak, J. (2008). Sociološke dimenzije odgoja i obrazovanja za održivi razvoj. In V. Uzelac, L. Vujičić (ed.), *Cjeloživotno učenje za održivi razvoj, 1. svezak* (str. 95-105). Sveučilište u Rijeci, Učiteljski fakultet u Rijeci.

Leganés-Lavall, E. N. and Pérez-Aldeguer, S. (2016). Social competence in higher education questionnaire (CCSES): Revision and psychometric analysis. *Frontiers in Psychology*, *7*(34), 1–6. https://doi.org/10.3389/fpsyg.2016.01484

Li, Y., Zhao, J., Ma, Z., McReynolds, L. S., Lin, D. and Chen, Z. (2021). Mental Health Among College Students During the COVID-19 Pandemic in China: A 2-Wave Longitudinal Survey. *Journal of affective disorders*, *281*, 597-604. https://doi.org/10.1016/j.jad.2020.11.109

Livazović, G. (2012). Pedagoško utemeljenje kurikuluma socijalnih kompetencija u školi. *Pedagogijska istraživanja*, *9*(1-2), 59-81. https://hrcak.srce.hr/113446

Martinsone, B. (2016). Social Emotional Learning: Implementation of Sustainability-Oriented Program in Latvia. *Journal of Teacher Education for Sustainability*, *18*(1), 57-68. https://doi: 10.1515/jtes-2016-0005

Mebratu, D. (1998). Sustainability and sustainable development: historical and conceptual review. *Environmental impact assessment review*, *18*(6), 493-520. https://doi.org/10.1016/S0195-9255(98)00019-5

Mehmedbegović-Smith, D. (2020). Zdrava lingvistička prehrana (HLD): učenje jezika kao ključan sastojak čovjekove dobrobiti. In A. Peko, M. Ivanuš Grmek i J. Delcheva Dizarevikj (ed.), (2020). *Međunarodna znanstvena konferencija Didaktički izazovi III: didaktička retrospektiva i perspektiva Kamo i kako dalje?* (str. 67 - 77). Sveučilište Josipa Jurja Strossmayera u Osijeku Fakultet za odgojne i obrazovne znanosti. https://drive.google.com/file/d/1Q97LhzjTDDuu097QRmuzjhZnhlEoBXEX/view

Mubtaker, Y. (2020). *SDGs for Everyone*. Independently published.

Obradović, J. and Dmitrović, M. SWOT analiza on-line nastave u toku pandemije. In V. Katić (ed.), *XXVII skup trendovi razvoja: "On-line nastava na univerzitetima",* (str. 87 – 90). Fakultet tehničkih nauka Univerziteta u Novom Sadu. http://www.trend.uns.ac.rs/stskup/trend_2021/radovi/T1.1/T1.1-18.pdf

OECD (2018). *Questions related to global competence in the student questionnaire*. https://www.oecd.org/pisa/PISA-2018-Global-Competence-Questionnaire.pdf

Pandey, U., Corbett, G., Mohan, S., Reagu, S., Kumar, S., Farrell, T. and Lindow, S. (2021). Anxiety, depression and behavioural changes in junior doctors and medical students associated with the coronavirus pandemic: a cross-sectional survey. *The Journal of Obstetrics and Gynecology of India*, *71*(1), 33-37. https://doi: 10.1007/s13224-020-01366-w

Račić, M. (2013). Modeli kompetencija za društvo znanja. *Suvremene Teme : Međunarodni Časopis Za Društvene i Humanističke Znanosti*, *6*(1), 86–100. https://hrcak.srce.hr/112805

Raditya-Ležaić, A., Boromisa, A. M. and Tišma, S. (2018). Comparative analysis of education for sustainable development and the need for experts in sustainable development in Croatia. *Socijalna Ekologija*, *27*(2), 165–180. https://doi.org/10.17234/SocEkol.27.2.3

Rončević, N., Ledić, J. and Ćulum, B. (2008). „Nisam sigurna što je, ali je bitno"- analiza stavova studenata Sveučilišta u Rijeci o održivom razvoju. *Suvremene Teme: Međunarodni Časopis Za Društvene i Humanističke Znanosti*, *1*(1), 62–75. https://hrcak.srce.hr/35232

UN (1993). *Agenda 21: Programme of Action for Sustainable Development; Rio Declaration on Environment and Development; Statement of Forest Principles: the Final Text of Agreements Negotiated by Governments at the United Nations Conference on Environment and Development (UNCED), 3-14 June 1992.* United Nations Department of Information. https://digitallibrary.un.org/record/170126

UNESCO (2005). *UN Decade of Education for Sustainable Development: Linkages Between the Global Initiatives in Education. Paris*. UNESCO.

UNESCO (2015). *Rethinking Education. Towards a global common good?* Paris. UNESCO https://unesdoc.unesco.org/ark:/48223/pf0000232555

UNESCO (2017). *Education for Sustainable Development: Learning Objectives*. Paris. UNESCO https://unesdoc.unesco.org/ark:/48223/pf0000247444?posInSet=1&queryId=aa1670dc-4b43-4762-ac66-688bf3a9d37b

Villegas, A. M. and Lucas, T. (2002). Preparing culturally responsive teachers: Rethinking the curriculum. *Journal of teacher education*, *53*(1), 20-32. https://doi: 10.1177/0022487102053001003

Vukelić, N, Rončević, N. and Vinković, A. (2018). Jesu li budući nastavnici spremni za integraciju obrazovanja za održivi razvoj u nastavu? U E. Dedić Bukvić i S. Bjelan-Guska (ur.), *Ka novim iskoracima u odgoju i obrazovanju. Zbornik radova sa 2. međunarodne znanstveno- stručne konferencije* (str. 326-338). Filozofski fakultet u Sarajevu. https://www.researchgate.net/publication/337010122_Jesu_li_buduci_nastavnici_spremni_za_integraciju_OOR_u_nastavu

World commission on environment and development (1987). *Our common future*. United Nations. https://www.are.admin.ch/are/en/home/media/publications/sustainable-development/brundtland-report.html

Zrilić, S. (2010). Kvaliteta komunikacije i socijalni odnosi u razredu. *Pedagogical Research*, *7*(2), 231–240. https://hrcak.srce.hr/118096

Zwaans, A., Ten Dam, G. and Volman, M. (2006). Teachers' goals regarding social competence. *European Journal of Teacher Education*, *29*(2), 181–202. https://doi.org/10.1080/02619760600617375