



1 prediction. Researchers of the future often emphasize the importance of increasing  
2 the mentioned awareness to enable more decisive and more concrete decisions (at  
3 a global level) towards more desirable futures, especially in the direction of  
4 educational challenges. Despite the importance of the concept of futures  
5 consciousness and the proliferation of related concepts, there are only a few  
6 solutions. Therefore, Ahvenharju et al. (2018) offered a model that they named the  
7 model of five dimensions: 1) time perspective; 2) agency beliefs; 3) openness to  
8 alternatives; 4) systems perception; and 5) concern for others. The model is the  
9 foundation for Futures Consciousness's conceptual expansion and  
10 operationalization, allowing for its use in empirical research. Future awareness is  
11 generally considered a holistic concept that draws attention to the future as an  
12 internalized and experienced phenomenon, and it can also be defined as being  
13 aware of what is possible, probable, and desirable in the future (Lombardo, 2016;  
14 2017). The importance of this topic has been underscored by numerous studies,  
15 with a significant increase in research over the past decade on the global stage  
16 (Knudsen et al., 2023; Burgess et al., 2021) and in specific regions such as Croatia  
17 (Dubovicki, 2020; Dubovicki, & Kostanjčar, 2023). This surge in academic  
18 interest further underscores the relevance and urgency of the research and  
19 academic discussion.

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## 22 **University teaching as a model of teaching future students**

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24 Previous research shows that the quality of university teaching is of great  
25 importance. Not only does it represent a model that helps teacher education  
26 students to conceptualize their future teaching process, but it also associates the  
27 quality of the teaching process with a particular form of social and emotional  
28 climate (Bognar & Kragulj, 2010; Bognar & Dubovicki, 2012; Dubovicki &  
29 Banjari, 2014). It should be taken into account that we, as university professors,  
30 have a direct and indirect influence on the education of those who will raise and  
31 educate our children for the next 40 years; we can almost reach the year 2100,  
32 which presents us with a great challenge and an even greater responsibility  
33 (Dubovicki, 2020). A standard duty of university professors who teach future  
34 generations of students is to advocate for a general awareness of the future and to  
35 reflect on the future. The results of previously conducted research show that  
36 people who perceive their personal and professional future positively have a  
37 greater chance of success because they envisioned and planned optimistic  
38 scenarios, unlike those who negatively perceived themselves and their future  
39 occupation, which ultimately led them to demotivation and giving up (Hideg &  
40 Nováky, 2010; Chen & Vazsonyi, 2011). If students are not "taught" to plan,  
41 research, and prevent challenges in the future during their university classes, the  
42 question arises whether they are ready to face new challenges. According to some  
43 experts, educational strategists should study the future and learn from futurologists  
44 to create new viewpoints for preparing future trends and educational issues (Singh  
45 & Yadav, 2017).

1 Today's university teaching is commonly conducted in a blended learning  
2 environment. Samoylenko et al. (2022) emphasize that the online and face-to-face  
3 components must be properly balanced, with methods of motivating and involving  
4 students while fostering students' independence and independent study. New  
5 learning environments are omnipresent in higher education, impacting changes in  
6 study habits related to the time and space of studying, a decline in motivation and  
7 its connection to the complexity of the learning goals, and greater flexibility for  
8 students (Jereb et al., 2023). In contemporary schooling, the advantages of using  
9 digital videos to support learning complex concepts, encourage discussion, and  
10 develop higher levels of thinking are highly valued (Batarelo Kokić & Rukavina,  
11 2017). Furthermore, using video cases in teacher education benefits future teachers  
12 by demonstrating instructional strategies, providing additional resources to  
13 augment the video examples, and providing insights into classroom administration  
14 (Kurz & Batarelo, 2010). However, we should stress that including new media in  
15 the educational process has never automatically meant a contemporary teaching  
16 process if most activities are still focused mainly on listening, observing, and  
17 writing down through one-way communication. While focusing on the  
18 development of communication skills, special attention should also be paid to the  
19 use of social networks since recent research indicates that the role of social media  
20 in teacher education students' development of interpersonal relationships in areas  
21 including making new contacts, preserving ties offline, learning from one another,  
22 and self-presentation (Frانيا et al., 2023).

23 The Bologna Process's reform requires a shift of emphasis from university  
24 professors to students, who are now more active in the higher education  
25 classroom. This shift towards student-centred learning in higher education aligns  
26 with contemporary social reality (Osmanović Zajić & Maksimović, 2023).  
27 University teachers, and consequently future teachers, are responsible for creating  
28 the contemporary and quality teaching process since they are the ones that create it  
29 and implement it as well. Therefore, it is necessary to continuously invest in  
30 personal and professional growth and development via continuous research and  
31 improvement of one's teaching and questioning already established theoretical  
32 starting points of taught content through a critical correlation with contemporary  
33 achievements and discussions with students (Topolovčan, 2023). The  
34 professionalization of the teaching profession requires changes in the initial  
35 selection and training of future teachers, which leads to the autonomous teacher  
36 who operates in an autonomous setting (Batarelo Kokić & Blažević, 2022).

37 However, teaching is not the only aspect on which the students focus and  
38 "look up to" their teachers during their studies. One of the essential elements,  
39 which is also an indicator of the hidden curriculum, are research approaches and  
40 methodological frameworks in research of future teachers, which show that the  
41 students, following their teachers' examples, most commonly conduct research in  
42 the field of positivistic paradigm using a survey as a research tool (Dubovicki et  
43 al., 2018; Dubovicki & Topolovčan, 2020). By looking at the global achievements  
44 in contemporary methodology, we know that in conducting contemporary research  
45 on a phenomenon (and especially those in the field of pedagogy), we cannot "rely"  
46 on the benefits of only one research method. Moreover, the pluralism of scientific

1 paradigms and research methods is emphasized nowadays, all to obtain as reliable,  
2 concrete, and comprehensive insights into the research subject as possible (Cohen  
3 et al., 2007; Creswell, 2012; Topolovčan & Dubovicki, 2019). Methods from  
4 future studies also have a special place in conducting contemporary research.  
5 Those methods have been long known in the world and are applied, among other  
6 things, to research phenomena in the field of education (Inayatullah, 2004; 2005;  
7 Holdaway, 2023) and have their special place. In Croatia, they have been  
8 increasingly used and affirmed in the last ten years or so (Dubovicki, 2017;  
9 Dubovicki & Beara, 2021; Dubovicki & Dilica, 2022; Dubovicki & Kostanjčar,  
10 2023). We are faced with numerous challenges brought to us by new  
11 generations (Jukić & Škojo, 2021; Dubovicki, Jukić & Topolovčan, 2022; Jukić,  
12 2023), those that we need to raise and educate in a way that will enable students to  
13 be active, to unleash their potential, to express their ideas freely and take the  
14 initiative.

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### Goal Orientations of Students

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19 A critical question is: What motivates students and future teachers? It is  
20 orientation towards achieving a desired and/or set goal, better known as goal  
21 orientation. It represents one of the leading theories of motivation in the last few  
22 decades, and we can define it as a set of beliefs leading to different approaches,  
23 engagement, and responses to situational demands (Đuranović, 2019). Given the  
24 importance and "power" that goal orientation has, especially in the educational  
25 process, contemporary researchers have compared it with the emotions that  
26 students face during exam situations (Burić & Sorić, 2011); academic success and  
27 self-regulation strategies among students at different educational levels (Batarelo  
28 Kokić et al., 2023; Pahljina-Reinić, 2022; Callan & Shim, 2019; Đuranović, 2019;  
29 Pahljina-Reinić & Kukić, 2015), and the relationship between self-regulated  
30 learning and non-academic achievements was also researched (Anthonysamy et  
31 al., 2020). It is precisely self-regulation that is understood as the most significant  
32 predictor of teaching quality, along with learning orientation as an indicator of a  
33 positive perception of teaching quality and the importance of challenge and  
34 stimulation for achieving greater student involvement (Jurčev et al., 2019).

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36 After a comprehensive review of research spanning three decades, we can  
37 draw several key conclusions about goal orientations. These orientations are often  
38 linked to beliefs about effort, abilities, and the pace of learning. They are also  
39 associated with perceived self-efficacy, goal dedication, task complexity,  
40 perseverance, and learning processes. Moreover, goal orientations are frequently  
41 tied to positive academic adaptations, with knowledge orientation being the most  
42 desirable outcome of the teaching process (Niemi-virta, 2002; Vandewalle et al.,  
43 2019; Tuominen et al., 2020).

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## Methodology

The first research goal was to examine future teachers' individual and educational characteristics. We wanted to research the type of study program that student chose to pursue concerning the type of high school they graduated from and their place of residence. Also, this research aimed to examine and present the metric characteristics and factor structure of the Croatian version of the *Student Course Experience Questionnaire* (Ginns et al., 2007) and the *Components of Self-regulated Learning Questionnaire – Goal Orientations* (Niemivirta, 1996, 1998). Furthermore, we wanted to research the characteristics of student experiences in teacher education and the characteristics of future teachers' target orientations. Finally, we wanted to research the connection between students' experience with teaching and specific aspects of the goal-oriented future teachers.

### Respondents

The data were collected among a sample of teacher education students, i.e., future teachers (N = 747) from Osijek, Rijeka, and Split universities. There were 91 (12.2%) men and 656 (87.8%) women. Regarding residence, 464 (62.1%) live in the city and 283 (37.9%) in the countryside. Regarding the type of secondary school, 492 (65.9%) completed gymnasium, and 255 (34.1%) completed vocational school. Regarding the university, 286 (38.3%) of them study at the University of Osijek, 269 (36%) at the University of Split and 192 (25.7%) at the University of Rijeka. Regarding the type of study program, 404 (54.1%) of them are studying to become elementary school teachers, and 343 (45.9%) are to become subject teachers. Regarding the study year, 89 (11.9%) are in the first, 125 (16.7%) in the second, 97 (13%) in the third, 203 (27.2%) in the fourth and 233 (31.2%) in the fifth year of study.

### Data Collection Instruments

Data were collected on demographic characteristics, i.e., gender (male, female), completed high school (vocational, gymnasium, some other high school), year of study (first, second, third, fourth, fifth), place of residence (city, village), the university where future teachers are studying (University in Osijek, University of Rijeka, & University of Split) and which study program they are studying (teaching, teaching studies). In addition to demographic data, we also collected data on the assessment of the quality of university teaching and self-assessment of goal orientations in learning.

The *Student Course Experience Questionnaire* (SCEQ) (Ginns et al., 2007) collected data on the quality of university teaching. The questionnaire was used with the author's permission and translated into Croatian. The questionnaire consists of twenty-three manifest statements that form five latent factors (1 = *completely disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, 5 = *completely agree*) The *Good Teaching Scale* includes six statements that examine the didactic-methodical quality of university teachers' teaching. The *Clear Goals*

1 *and Standards Scale* consists of four statements that examine whether the learning  
 2 outcomes and standards are presented and explained to students. Following is the  
 3 *Appropriate Assessment Scale* which contains three statements that examine the  
 4 appropriateness of the assessment. The *Appropriate Workload Scale* consists of  
 5 four statements that measure the appropriateness of the workload with teaching  
 6 tasks and learning activities. Finally, the *Generic Skills Scale*, contains six  
 7 manifest statements that examine the extent to which the university teaching  
 8 develops generic skills such as democratic communication, planning, and  
 9 analytical skills. The scales show satisfactory internal reliability, while the  
 10 intercorrelations of the scales are significant.

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*Table 1.* The results of the factor analysis for the SCEQ

The claims from the SCEQ	Factor saturations				
	1	2	3	4	5
Factor 1: Good Teaching Scale					
2.The teaching staff of this degree course motivate me to do my best work.	<b>.79</b>	-.01	.03	-.00	-.00
3.The staff make a real effort to understand difficulties I may be having with my work	<b>.78</b>	-.01	.12	-.01	.05
6.The staff put a lot of time into commenting on my work.	<b>.77</b>	.00	.01	.07	-.10
5.The teaching staff work hard to make their subjects interesting	<b>.72</b>	-.01	-.10	-.06	-.10
1.The teaching staff normally give me helpful feedback on how I am going	<b>.68</b>	-.01	.02	.03	-.01
4.My lecturers are extremely good at explaining things.	<b>.58</b>	-.06	-.03	-.23	-.09
Factor 2: Generic Skills Scale					
21.The degree course has developed my problem-solving skills.	.00	<b>-.83</b>	.04	.03	-.04
19.The degree course has sharpened my analytic skills.	-.01	<b>-.83</b>	-.07	.02	.00
22.The degree course has improved my skills in written communication.	-.08	<b>-.77</b>	-.09	-.07	-.08
18.The degree course has helped me develop my ability to work as a team member.	.06	<b>-.74</b>	-.04	.08	.06
23. My degree course has helped me to develop the ability to plan my own work.	.00	<b>-.72</b>	.00	-.03	-.03
20. As a result of my degree course, I feel confident about tackling unfamiliar problems.	.03	<b>-.64</b>	.20	-.07	.04
Factor 3: Appropriate Workload Scale					
15. The workload is too heavy. *	-.04	.09	<b>.85</b>	.07	.02
14. There is a lot of pressure on me as a student in this degree course. *	-.03	.03	<b>.74</b>	-.11	-.11
16. I am generally given enough time to understand the things I have to learn.	.21	-.14	<b>.61</b>	-.12	.15
17. The sheer volume of work to be got through in this degree means it can't all be thoroughly comprehended. *	.02	-.05	<b>.51</b>	.04	-.27
Factor 4: Clear Goals and Standards Scale					
8. It is always easy to know the standard of work expected.	.11	.00	.01	<b>-.79</b>	.05

10. It has often been hard to discover what is expected of me in this degree course. *	-25	.00	.08	<b>-.76</b>	-.17
9. The staff made it clear right from the start what they expected from students.	.12	-.05	-.05	<b>-.75</b>	.02
7. I have usually had a clear idea of where I am going and what is expected of me in this degree course.	.32	-.05	.04	<b>-.46</b>	.04
Factor 5: Appropriate Assessment Scale					
12. Too many staff ask me questions just about facts.*	.17	.03	-.01	-.02	<b>-.82</b>
11. The staff seem more interested in testing what I have memorised than what I have understood.*	.13	.01	.01	-.02	<b>-.78</b>
13. To do well in this degree all you really need is a good memory.	-.06	-.10	.08	-.02	<b>-.71</b>
Explained variance %	29.2	11.24	8.28	6.14	5.58
Characteristic root	6.71	2.58	1.92	1.44	1.33
$\alpha$	.86	.86	.70	.74	.77

Remark:  $N = 747$ ;  $KMO = .889$ ; Bartlett's sphericity test = 6816.49 ( $df = 253$ ;  $p = .000$ ); \* the particles have been recoded.

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2 In order to check the construct validity, a factor analysis (PCA) was  
3 performed with saturations greater than .04, characteristic root greater than 1.0 and  
4 oblimin rotation. Five latent factors were obtained, which explains 60.72% of the  
5 variance (Table 2). The obtained factor structure fully replicates the original factor  
6 structure of the *Student Course Experience Questionnaire*, and the internal  
7 reliabilities of the factors are satisfactory (Table 1), as well as the intercorrelations  
8 of the factors (Table 3).

9 The questionnaire *Components of Self-regulated Learning – CSRL*  
10 (Niemi-virta, 1996, 1998) was used to collect data on goal orientations in learning.  
11 The questionnaire consists of fifteen manifest statements on a Likert scale (1  
12 = *completely disagree*, 2 = *disagree*, 3 = *neither agree nor disagree*, 4 = *agree*, 5  
13 = *completely agree*) which form three subscales. The questionnaire was used with  
14 the author's consent, with the translation from previous questionnaire applications  
15 on a sample of Croatian respondents (Pahljina-Reinić & Kukić, 2015). The first  
16 scale focuses on learning orientation; it contains five statements and measures the  
17 student's orientation toward acquiring new knowledge as a product of the learning  
18 process. The second scale focuses on performance orientation; it contains five  
19 manifest statements that measure the orientation toward the best possible success  
20 for others. The third scale focuses on the work-avoidance orientation, and it  
21 consists of five statements that measure the achievement of learning outcomes  
22 with as little effort as possible.

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1 **Table 2.** *The results of the factor analysis for the CSRL*

Claims from the CSRL questionnaire	Factor saturations		
	1	2	3
Factor 1: Learning orientation			
4. I like the most tasks that I can learn new things from	<b>.84</b>	-.09	.01
3. Learning something new feels especially good	<b>.80</b>	-.01	.05
5. I like to learn about new things in school	<b>.77</b>	.00	-.05
2. An important goal for me in school is to learn as many new things as possible	<b>.76</b>	.00	-.04
1. To acquire new knowledge is the most important goal for me in school	<b>.70</b>	.01	-.01
Factor 2: Performance orientation			
7. I have succeeded when I get better results or grades than many other students	-.05	<b>.87</b>	.07
8. I feel especially good when I succeed in tests better than other students	-.15	<b>.83</b>	.02
6. I am particularly satisfied when I do better in school than other students	.05	<b>.80</b>	.09
9. It is important to me that other students and teachers consider my schoolwork good	.07	<b>.70</b>	-.15
10. I feel good when I manage to demonstrate to other people that I master things	<b>.400</b>	<b>.403</b>	-.01
Factor 3: Work-Avoidance Orientation			
12. I try to get off with my schoolwork with as little effort as possible		.43	<b>.85</b>
11. I try to do my schoolwork with as little effort as possible		.77	<b>.82</b>
14. I am not interested in doing anything extra for my schoolwork and studying		.75	<b>.81</b>
13. I usually want to do just the required schoolwork, nothing more		.70	<b>.79</b>
15. I am very satisfied when my schoolwork does not require too much time or thinking		.56	<b>.70</b>
Explained variance %	29.35	20.4	12.61
Characteristic root	4.04	3.06	1.89
$\alpha$	.84	.80	.86
Remark: $N = 747$ ; $KMO = .807$ ; Bartlett's sphericity test = 5311.54 ( $df = 105$ ; $p = .000$ ).			

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To check the construct validity, factor analysis (PCA) was performed with saturations greater than .04, characteristic root greater than 1.0 and oblimin rotation. Three factors were obtained, explaining 62.37% of the variance (Table 2). The first and second obtained factors share one particle with slightly higher saturation than its original factor. Therefore, it is indicated that the obtained factor structure completely replicates the original factor structure of the *Components of Self-regulated Learning*. The internal reliabilities of the factors are satisfactory (Table 2), and the intercorrelations of the factors are satisfactory (Table 3).

## 1 Procedure

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3 The data collection procedure was designed with utmost respect for  
4 the respondents' autonomy. The method used was pencil to paper, ensuring a  
5 familiar and comfortable environment for the respondents. Filling in the  
6 questionnaire was completely anonymous and voluntary, respecting the privacy  
7 and rights of the respondents. They were also assured that they could withdraw  
8 from filling out the questionnaire at any time, further emphasizing their autonomy  
9 and control over their participation.

## 11 Research results and interpretation

12 Descriptive analysis showed that future teachers estimate that their studies  
13 enable them to develop above-average generic skills. On the other hand, they  
14 believe that the teaching in higher education is mediocre, the goals and  
15 standards are averagely explained, the evaluation is mediocre, and the workload is  
16 neither too heavy nor too easy. Future teachers show that they are above average  
17 focused on learning and averagely on performance, avoiding effort during learning  
18 (Table 3).

19 **Table 3.** *Descriptive characteristics of the researched factors*

Factors	N	Range	Min	Max	M	SD
SCEQ						
1.GTS	747	4.00	1.00	5.00	3.13	.80
2.CGSS	747	3.75	1.25	5.00	3.13	.73
3.AAS	747	4.00	1.00	5.00	2.87	.93
4.AWS	747	4.00	1.00	5.00	2.77	.77
5.GSS	747	4.00	1.00	5.00	3.89	.68
CSRL						
6.LO	747	4.00	1.60	5.00	4.29	.57
7.PO	747	1.00	1.00	5.00	3.17	.84
8.WAO	747	4.00	1.00	5.00	3.24	.80

Remark: SCEQ = Student Course Experience Questionnaire; GTS = Good teaching scale; CGSS = Clear goals and standards scale; AAS = Appropriate assessment scale; AWS = Appropriate workload scale; GSS = Generic skills scale; LO = Learning orientation; PO = Performance orientation; WAO = Work-avoidance orientation; \* $p < .05$ ; \*\* $p < .001$ .

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24 Furthermore, the inter-correlations between SCEQ and CSRL scales are  
25 presented in Table 4. Pearson's correlation test revealed a highly significant  
26 positive correlation among future teachers between five SCEQ scales related to  
27 different features of higher education teaching, CSRL learning orientation, and  
28 CSRL work-avoidance orientations. Furthermore, a highly significant statistical  
29 correlation exists between the SCEQ Good Teaching Scale and the SCEQ Generic  
30 Skills Scale with the CSRL performance orientation scale. The data also show no  
31 statistical association between CSRL performance orientation with the three  
32 SCEQ scales, clear goals and standards, appropriate assessment and appropriate  
33 workload scale.

1 **Table 4.** *Correlations of the researched factors*

Factors	2.	3.	4.	5.	6.	7.	8.
SCEQ							
1.GTS	.46**	.38**	.32**	.36**	.26**	.17**	-.23**
2.CGSS	-	.35**	.35**	.35**	.19**	.01	-.17**
3.AAS		-	.39**	.24**	.18**	-.01	-.22**
4.AWS			-	.17**	.15**	-.06	-.12**
5.GSS				-	.36**	.12**	-.21**
CSRL							
6.LO					-	.22**	-.32**
7.PO						-	.03
8.WAO							-

Remark: SCEQ = Student Course Experience Questionnaire; GTS = Good teaching scale; CGSS = Clear goals and standards scale; AAS = Appropriate assessment scale; AWS = Appropriate workload scale; GSS = Generic skills scale; LO = Learning orientation; PO = Performance orientation; WAO = Work-avoidance orientation; \* $p < .05$ ; \*\* $p < .001$ .

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## Discussion

6 This study provided answers to the posed research questions. The gathered  
7 demographic data show that two-thirds of teacher studies and teacher education  
8 students have graduated from grammar schools, and it has been established that  
9 slightly more than half of the students live in the city. The obtained data can be  
10 viewed in the context of previous research focused on socioeconomic and  
11 demographic inequalities regarding access to higher education qualifications.  
12 It was determined that regardless of demographic characteristics, one of the main  
13 challenges in accessing higher education is the visions (personal and professional)  
14 that young people have for themselves (Burgess et al., 2021). Recent studies on  
15 the selection of teacher studies (Van Overschelde & Wiggins, 2020) are  
16 particularly interesting, and they emphasize the importance of preparing,  
17 recruiting, and retaining highly qualified teachers from different socioeconomic  
18 and demographic groups.

19 The results of our study provide a strong validation of the Student Course  
20 Experience Questionnaire - SCEQ. The questionnaire demonstrated excellent  
21 psychometric characteristics, including content and construct validity, as well as  
22 reliability coefficients. Importantly, confirmatory factor analysis confirmed the  
23 theoretically assumed five-factor structure of the questionnaire, with scales of  
24 good teaching, clear goals and standards, appropriate evaluation, appropriateness  
25 of workload and development of generic skills. This robust validation process  
26 confirms the assumed factor structure of the original instrument (Ginns et al.,  
27 2007), instilling confidence in the reliability of our findings.

28 Research also showed excellent psychometric characteristics of the  
29 Components of Self-regulated Learning questionnaire - CSRL related to content  
30 and construct validity and reliability coefficients. Confirmatory factor analysis  
31 confirmed the theoretically assumed three-factor structure of the questionnaire,  
32 with the scales oriented on learning, performance, and work avoidance orientation.  
33 This research confirmed the assumed factor structure of the original instrument

1 (Niemi-virta, 1996, 1998), as well as the earlier translation of the original document  
2 into Croatian (Pahljina-Reinić & Kukić, 2015).

3 Research results point to the characteristics of student experiences in teacher  
4 education and teacher studies, according to which respondents estimate that their  
5 studies enable them to develop above-average generic skills. Furthermore, they  
6 believe that the teaching in higher education is mediocre, the objectives and  
7 standards are explained averagely, the evaluation is mediocre, and the workload is  
8 neither too heavy nor too easy. The results can be viewed in the context of earlier  
9 studies on the quality of university teaching. Thus, the results of research  
10 conducted by Harrison et al. (2022) revealed the use of teaching quality: student  
11 feedback data, self-assessment tools, peer review of teaching (formative and  
12 summative), and the use of teaching portfolios. The authors present data about the  
13 efficacy of each of these strategies, suggesting that a multi-modal strategy would  
14 be the most successful, but it requires resource consideration.

15 How teachers define and recognize self-regulated learning in previously  
16 conducted research is of significant importance. The study conducted by Callan  
17 and Shim (2019) emphasized that researchers and educators need to develop a  
18 common language for self-regulated learning before it can be fully integrated into  
19 classroom practices. Teachers often think of self-regulated learning as self-  
20 directedness, which can lead to misinformation. Therefore, it is not just important  
21 but crucial to have a clear understanding of self-regulated learning to ensure its  
22 effective implementation in classrooms.

23 Regarding evaluating the correlation between different aspects of the student's  
24 experience with certain aspects of the goal orientation of future teachers, a highly  
25 significant positive connection was established between different characteristics of  
26 higher education teaching, goal orientations, and orientations to avoid effort. A  
27 highly significant positive correlation has been determined between the good  
28 teaching subscale and the subscale of the development of generic skills with the  
29 goal-oriented subscale. These results relate to the results of previous research on  
30 the attitude of students towards classes and self-regulated learning. Batarelo Kokić  
31 et al. (2023) examined the four characteristics of perceived self-regulated learning  
32 skills in a higher education distance setting. Their study showed a significant  
33 correlation between attitudes towards distance education and self-regulated  
34 learning skills. The relationship between self-regulated learning and non-academic  
35 success is the focus of research conducted by Anthonysamy et al. (2020), and they  
36 indicate the equal importance of non-academic and academic outcomes and the  
37 need to implement activities that encourage the development of self-regulation  
38 skills. The skills of self-regulation of learning are vital to achieving success in  
39 highly autonomous situations.

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## 43 **Conclusions**

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44 Changes in educational policies, such as the introduction of micro-  
45 qualifications at the higher education level, hold immense potential to shape the  
46 future of higher education. These changes influence both theoretical and practical

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1 choices in designing new models of higher education, with a clear recognition of  
 2 the importance of performance orientation and its direct link to generic skills. As  
 3 we consider the possible trends in defining a new model of higher education, it's  
 4 crucial to plan optimistic future scenarios. This underscores the significance of  
 5 future teachers being motivated in both private and business contexts, equipping  
 6 them to tackle the numerous challenges they will inevitably face.

7 In the private context, the impact of motivation is straightforward and can  
 8 lead to quicker employment and earlier independence. In the business context,  
 9 motivation is equally crucial, as it can provide the necessary material resources,  
 10 support in lifelong education, and support from the school administration and  
 11 parents. The student's motivation for the teaching process is not just important, it's  
 12 essential. This can be achieved through creative teaching methods that make  
 13 classes more interesting, modern, and fun. However, it is essential to follow the  
 14 actual potential of the students in order to avoid an overload of students and  
 15 teachers.

## 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47

- References
- Ahvenharju, S., Minkkinen, M. & Lalot, F. (2018). The five dimensions of Futures Consciousness. *Futures*, 104, 1-13. <https://doi.org/10.1016/j.futures.2018.06.010>
- Anthonyamy, L., Koo, A. C., & Hew, S. H. (2020). Self-regulated learning strategies and non-academic outcomes in higher education blended learning environments: A one decade review. *Education and information technologies*, 25(5), 3677-3704. <https://doi.org/10.1007/s10639-020-10134-2>
- Batarel Kokić, I., Poljak, P., Kokić, T., & Bušelić, A. (2023). Relation between self-regulated learning and distance education attitudes among higher education students. In *Proceedings of EdMedia + Innovate Learning* (pp. 1381-1389). Association for the Advancement of Computing in Education (AACE).
- Batarel Kokić, I., & Blažević, I. (2022). Profesionalizacija nastavničke struke i aspekti profesionalnog razvoja nastavnika [The Professionalization of Teaching Profession and Aspects of the Professional Development of Teachers]. In Luketić, D. (ed.), *Ogledi o nastavničkoj profesiji*, (pp. 45-68). University of Zadar.
- Batarel Kokić, I., & Rukavina, S. (2017). Learning from Digital Video Cases: How Future Teachers Perceive the Use of Open Source Tools and Open Educational Resources. *Knowledge Cultures*, 5(5). <https://doi.org/10.22381/KC5520177>
- Bognar, L., & Kragulj, S. (2010). Kvaliteta nastave na fakultetu [Quality of Teaching at the University]. *Život i škola, LVI*(24), 169-182.
- Bognar, L., & Dubovicki, S. (2012). Emotions in the Teaching Process. *Croatian Journal of Education*, 14(1), 135-153.
- Burgess, A. P., Horton, M. S. & Moores, A. (2021). Optimising the impact of a multi-intervention outreach programme on progression to higher education: recommendations for future practice and research. *Heliyon*, 7, E07518. <https://doi.org/10.1016/j.heliyon.2021.e07518>
- Burić, I., & Sorić, I. (2011). Pozitivne emocije u ispitnim situacijama–doprinosi učeničkih ciljnih orijentacija, voljnih strategija i školskog postignuća. [Positive Test Emotions – Contributions of Students Goal Orientations, Volitional Strategies and Academic Achievement]. *Suvremena psihologija*, 14(2), 183-199.

- 1 Callan, G. L., & Shim, S. S. (2019). How teachers define and identify self-regulated  
2 learning. *The Teacher Educator*, 54(3), 295-312. [https://doi.org/10.1080/08878730.](https://doi.org/10.1080/08878730.2019.1609640)  
3 2019.1609640
- 4 Chen, P. & Vazsonyi, A. T. (2011). Future orientation, impulsivity, and problem  
5 behaviours: A longitudinal moderation model. *Developmental Psychology*, 47, 1633-  
6 1645.
- 7 Cohen, L., Manion, L. & Morrison, K. (2007). *Research methods in education*. Routledge.
- 8 Creswell, J. W. (2012). *Educational research: Planning, conducting and evaluating*  
9 *quantitative and qualitative research*. Pearson.
- 10 Dubovicki, S. (2017). Futurološke metode istraživanja. [Futuristic Research Methods (or  
11 Research Methods of the Future?).] In S. Opić, B. Bognar, S. Ratković (Eds.), *Novi*  
12 *pristupi metodologiji istraživanja odgoja* (pp. 203-221). Faculty of Teacher  
13 Education, University of Zagreb, Croatia.
- 14 Dubovicki, S. (2020). Do We Focus on the Positive Future in Higher Education? In A.  
15 Peko, M. Ivanuš Grmek; J. Delcheva Dizarević (Eds.), *Didactic Challenges III:*  
16 *Didactic Retrospective and Perspective Where/How do we go from here?* (pp. 78-  
17 91). Osijek: Faculty of Education, Josip Juraj Strossmayer University of Osijek.
- 18 Dubovicki, S. & Banjari, I. (2014). Students' attitudes on the quality of university teaching.  
19 *Sodobna pedagogika*, 65/131(2), 42-58.
- 20 Dubovicki, S., & Beara, M. (2021). Metodologija izvan okvira: Polakova igra. In V.  
21 Kovač, N. Rončević, & Z. Gregorović Belaić (Eds.), *U mreži paradigmi: Pogled*  
22 *prema horizontu istraživanja odgoja i obrazovanja* (pp. 93-114). Faculty of  
23 Humanities and Social Sciences, University of Rijeka, Croatia
- 24 Dubovicki, S., & Dilica, K. (2022). Biographies of the Future as a Creative Method of  
25 Visioning in Education. *Journal of Futures Studies*, 27 (1), 109-118. [https://doi.org/](https://doi.org/10.6531/JFS.202209_27(1).0008)  
26 [10.6531/JFS.202209\\_27\(1\).0008](https://doi.org/10.6531/JFS.202209_27(1).0008)
- 27 Dubovicki, S., Jukić, R., & Topolovčan, T. (2022). Izazovi nastavnčkog poziva u  
28 budućnosti [Challenges of the Teaching Profession in the Future]. In D. Luketić  
29 (Ed.), *Ogledi o nastavničkoj profesiji* (pp. 155-178). University of Zadar, Croatia.
- 30 Dubovicki, S., & Kostanjčar, A. (2023). How can future studies help us in professional  
31 and personal development? In S. Inayatullah, S. Dubovicki and A. Bilić (Eds.),  
32 *Didactic Challenges IV: Futures Studies in Education* (pp. 46-57). University of  
33 Osijek, Faculty of Education & Croatian Academy of Sciences; Center for Scientific  
34 Work in Vinkovci
- 35 Dubovicki, S., Mlinarević, V., & Velki, T. (2018). Istraživački pristupi i metodološki  
36 okviri u istraživanjima budućih učitelja. [Research Approaches and Methodological  
37 Framework in the Research of Future Teachers]. *Nova prisutnost*, XVI (3), 595-610.  
38 <https://doi.org/10.31192/np.16.3.11>
- 39 Dubovicki S., & Topolovčan T. (2020). Through the looking glass: methodological  
40 features of research of alternative schools. *Journal of Elementary Education*, 13(1),  
41 55-71. <https://doi.org/10.18690/rei.13.1.55-71.2020>
- 42 Frania, M., de Sousa Correia, F., Kot Kotecki, A. F. F., & Batarelo Kokić, I. (2022). From  
43 Facebook toward the Metaverse—how the future educators build interpersonal  
44 relationships using social media. *The New Educational Review*, 69(3), 13-26. [https://](https://doi.org/10.15804/tner.2022.69.3.01)  
45 [doi.org/10.15804/tner.2022.69.3.01](https://doi.org/10.15804/tner.2022.69.3.01)
- 46 Đuranović, M. (2019). Classroom Quality in Final Grades of Lower Secondary Education:  
47 Demographic Differences and Relationship with Target Learning Orientations.  
48 *Croatian Journal of Education*, 21(1), 11-44. <https://doi.org/10.15516/cje.v21i1.3384>
- 49 Ginns, P., Prosser, M., & Barrie, S. (2007). Students' perception of teaching quality in  
50 higher education: The perspectives of currently enrolled students. *Studies in Higher*  
51 *Education*, 32(5), 603-615. <https://doi.org/10.1080/03075070701573773>

- 1 Harrison, R., Meyer, L., Rawstorne, P., Razee, H., Chitkara, U., Mears S., & Balasooriya,  
2 C. (2022) Evaluating and enhancing quality in higher education teaching practice: a  
3 meta- review. *Studies in Higher Education*, 47(1), 80-96. [https://doi.org/10.1080/  
4 03075079.2020.1730315](https://doi.org/10.1080/03075079.2020.1730315)
- 5 Hideg, É. & Nováky, E. (2010). Changing attitudes to the future in Hungary. *Futures*,  
6 42(3), 230–236. <http://dx.doi.org/10.1016/j.futures.2009.11.008>
- 7 Holdaway, M. (2023). Accounting Meets Futures Studies in Interdisciplinary Research:  
8 Between a Rock and a Hard Place. *Journal of Futures Studies*, 28(1), 25-39. [https://  
9 doi.org/10.6531/JFS.202309\\_28\(1\).0003](https://doi.org/10.6531/JFS.202309_28(1).0003)
- 10 Inayatullah, S. (2004). *Causal Layered Analysis: An Integrative and Transformative  
11 Theory and Method. The Causal Layered Analysis Reader*. Tamkang University  
12 Publications.
- 13 Inayatullah, S. (2005). *Causal layered analysis — deepening the future. Questioning the  
14 Future: Methods and Tools for Organizational and Societal Transformation*. Tamkang  
15 University Press.
- 16 Jereb, E., Jerebic, J., & Urh, M. (2023). Studying Habits in Higher Education before and  
17 after the Outbreak of the COVID-19 Pandemic. *Athens Journal of Education*, 10(1),  
18 67-83. <https://doi.org/10.30958/aje.10-1-4>
- 19 Jukić, R. (2023). What Awaits a Teacher in the Future? In S. Inayatullah, S. Dubovicki  
20 and A. Bilić (Eds.), *Didactic Challenges IV: Futures Studies in Education* (pp. 32-  
21 45). University of Osijek, Faculty of Education & Croatian Academy of Sciences;  
22 Center for Scientific Work in Vinkovci
- 23 Jurčev, A., Topolovčan, T., & Maras, N. (2019). The Role of Goal Orientations and the  
24 Use of Digital Media in the Classroom Quality in the Final Grades of Elementary  
25 Education. *Croatian Journal of Education*, 21 (Sp.Ed.1), 29-46. [https://doi.org/10.  
26 15516/cje.v21i0.3508](https://doi.org/10.15516/cje.v21i0.3508)
- 27 Knudsen, M., Ahlqvist, T., & Taylor, A. (2023). Defining ‘Future Generations’: Epistemic  
28 Considerations on Conceptualizing a Future-Oriented Domain in Policy and Law-  
29 Making. *Journal of Futures Studies*, 28(2), 3-19. [https://doi.org/10.6531/JFS.202  
30 312\\_28\(2\).0001](https://doi.org/10.6531/JFS.202312_28(2).0001)
- 31 Kurz, T. L., & Batarelo, I. (2010). Constructive Features of Video Cases to be used in  
32 Teacher Education. *TechTrends*, 54(5), 46-52. [https://doi.org/10.1007/s11528-010-  
33 0436-x](https://doi.org/10.1007/s11528-010-0436-x)
- 34 Lombardo, T. (2014). The future evolution of consciousness. *World Future Review*, 6(3),  
35 322–335. <http://dx.doi.org/10.1177/1946756714552135>.
- 36 Lombardo, T. (2016). Future consciousness: The path to purposeful evolution—An  
37 introduction. *World Futures Review*, 8(3), 116–140. [https://doi.org/10.1177/1946  
38 756716673636](https://doi.org/10.1177/1946756716673636)
- 39 Niemivirta, M. (1996). *Motivational-cognitive components in self-regulated learning*.  
40 Paper presented at the 5<sup>th</sup> International Conference on Motivation. Landau, Germany.
- 41 Niemivirta, M. (1998). Individual differences in motivational and cognitive factors  
42 affecting self-regulated learning: A pattern-oriented approach. In P. Nenniger, R. S.  
43 Jager, A. Frey A. & M. Wosnitza (Eds.), *Advances in Motivation* (pp. 23-42). Verlag  
44 Empirische Pädagogik.
- 45 Niemivirta, M. (2002). Motivation and performance in context: The influence of goal  
46 orientations and instructional setting on situational appraisals and task performance.  
47 *Psychologia*, 45(4). 250-270. <http://doi.org/10.2117/psysoc.2002.250>
- 48 Osmanović Zajić, J., & Maksimović, J. (2023). The Bologna in the Field of Social  
49 Sciences and Humanities: A Precondition for Successful University Education.  
50 *Athens Journal of Education*, 10(4), 701-715. [https://doi.org/10.30958/  
aje.10-4-8](https://doi.org/10.30958/aje.10-4-8)

- 1 Pahljina-Reinić, R. i Kukić, M. (2015). Ciljne orijentacije studenata i prilagodba na studij.  
2 [Students' Goal Orientations and College Adjustment]. *Psihologijske teme*, 24(3),  
3 543-556.
- 4 Pahljina-Reinić, R. (2022). Achievement Goal Orientation Profiles and Strategies for the  
5 Self-Regulation of Motivation. *Psihologijske teme*, 31(3), 721-742. [https://doi.org/](https://doi.org/10.31820/pt.31.3.13)  
6 10.31820/pt.31.3.13
- 7 Rieckmann, M. (2012). Future-oriented higher education: Which key competencies should  
8 be fostered through university teaching and learning? *Futures*, 44(2), 127-135.  
9 <https://doi.org/10.1016/j.futures.2011.09.005>
- 10 Samoylenko, N., Zharko, L., & Glotova, A. (2022). Designing Online Learning  
11 Environment: ICT Tools and Teaching Strategies. *Athens Journal of Education*, 9(1),  
12 49-62. <https://doi.org/10.30958/aje.9-1-4>
- 13 Singh, R. & Yadav, Y. (2017). Perspective of Futurology and its Implication in Education.  
14 *Global Journal of Enterprise Information System*, 9(4), 57-61.
- 15 Topolovčan, T. (2023). The unknown about the known: The myths about teaching, school,  
16 learning, instruction and education. In S. Inayatullah, S. Dubovicki and A. Bilić  
17 (Eds.), *Didactic Challenges IV: Futures Studies in Education* (pp. 20-31). University  
18 of Osijek, Faculty of Education & Croatian Academy of Sciences; Center for  
19 Scientific Work in Vinkovci
- 20 Topolovčan, T. & Dubovicki, S. (2019). The Heritage of the Cold War in Contemporary  
21 Curricula and Educational Reforms. *Center for Educational Policy Studies Journal*,  
22 9(2), 11-32. <https://doi.org/10.26529/cepsj.567>
- 23 Tuominen, H., Juntunen, H., & Niemivirta, M. (2020). Striving for Success but at What  
24 Cost? Subject-Specific Achievement Goal Orientation Profiles, Perceived Cost, and  
25 Academic Well-Being. *Frontiers in Psychology*, 11. [http://doi.org/10.3389/fpsyg.](http://doi.org/10.3389/fpsyg.2020.557445)  
26 [2020.557445](http://doi.org/10.3389/fpsyg.2020.557445)
- 27 Vandewalle, D., Nerstad, C. G., & Dysvik, A. (2019). Goal orientation: A review of the  
28 miles traveled and the miles to go. *Annual Review of Organizational Psychology and*  
29 *Organizational Behavior*, 6, 115-144. [https://doi.org/10.1146/annurev-orgpsych-](https://doi.org/10.1146/annurev-orgpsych-041015-062547)  
30 [041015-062547](https://doi.org/10.1146/annurev-orgpsych-041015-062547)
- 31 Van Overschelde, J. P., & Wiggins, A. Y. (2020). Teacher preparation pathways:  
32 Differences in program selection and teacher retention. *Action in Teacher*  
33 *Education*, 42(4), 311-327. <https://doi.org/10.1080/01626620.2019.1656116>
- 34