PERCEIVED SELF-EFFICACY AND COURSE SATISFACTION IN STUDENTS PREPARING FOR TEACHING CAREERS

Elena-Ancuța Santi, Gabriel Gorghiu
Valahia University Târgoviște, Romania
E-mail: santi.anca84@gmail.com, ggorghiu@gmail.com

Costin Pribeanu
Academy of Romanian Scientists, Romania
E-mail: costin.pribeanu@gmail.com

Abstract

Self-efficacy is an important variable that explains students' behavior of engaging in school activities and persevering in the face of academic challenges. High confidence in personal competencies and in the ability to successfully accomplish a particular task or a certain goal, acts as a stimulating factor of mental resources (cognitive, affective, motivational, volitional), contributing to students' success. In an educational context, the development of self-efficacy can be both a means of facilitating high achievement, but also an end in itself, a prospective goal of education. Perceived self-efficacy plays a major role in understanding how students perceive and experience academic courses. This research aims to identify the extent to which perceived self-efficacy with the course influences students' satisfaction with the class as a prerequisite for learning and academic performance. A structural model was developed and tested on two samples of students enrolled in the Psychoeducational Training Program, to prepare for the teaching career. The research results show that there is a significant relationship between perceived self-efficacy with the course and satisfaction with the class. Understanding this relationship, several educational implications can be formulated for the development of students' academic self-efficacy; by recognizing the main indicators of low self-efficacy, teachers can implement specific strategies and interventions to optimize students' self-confidence and performance.
Keywords: *academic self-efficacy, computer self-efficacy, self-regulated learning, social self-efficacy*

Introduction

In the field of educational sciences, there is a constant concern about the knowledge and stimulation of the factors involved in learning, which makes the field of research for teachers inexhaustible and dynamic. Self-efficacy, a psychological construct intensively studied by psychologist Albert Bandura in his Social Cognitive Theory (1986), is an important variable in the educational context, which can provide valuable answers from the perspective of optimizing the educational process.

Self-efficacy is a multifaceted phenomenon (Bandura, 1997, p. 42) that refers to the perceived capability of successful completion of a task (Bandura, 1977, 1986, 1997). As several studies pointed out, self-efficacy is a key element that explains human behavior and has a major impact on the important variables in four categories of mental processes: cognitive, affective, motivational, and selection processes (Bandura, 1993; Schunk & DiBenedetto, 2021). Thus, problem-solving, decision-making, persistence, effort resistance, coping with stress and anxiety, goal achievement, and performance are positively influenced by beliefs about one's own effectiveness.

688

Self-efficacy in a domain correlates with performance in specific activities in that domain. There is general self-efficacy, the belief that you can succeed, but there are also specific forms of self-efficacy, such as social, academic, entrepreneurial, sporting, health, and artistic self-efficacy (Bandura, 1997).

Bandura (1997, p. 37) stated that perceived self-efficacy does not depend on the number of abilities a person has but refers to what he believes he can do with his own potential in different contexts. Also, a high level of perceived self-efficacy in one area does not guarantee the same level in other areas (Bandura, 1997, p. 42).

In the educational context, students' belief in their academic capabilities determines aspirations, motivation levels, and academic accomplishments (DeFreitas & Bravo Jr., 2012; Schunk et al., 2008). Bandura (1991) has stated that high levels of perceived self-efficacy are directly proportional to the high challenges and goals people set and their commitment to them. It also influences the anticipatory scenarios that people construct for themselves: those with high levels of perceived self-efficacy visualize anticipatory scenarios of success, which is internal support toward achievement. Perceived self-efficacy is also an important emotional mediator in managing stress and developing resilience.

Kryshko et al. (2022) pointed to several higher education research studies showing that self-efficacy is positively related to academic success, satisfaction, and perseverance and negatively correlated with procrastination. In a research study conducted by Schwarzer and Hallum (2008) teachers' perception of self-efficacy was an important factor in reducing professional stress and preventing burnout.

Understanding the importance of self-efficacy in learning is essential to improve the quality of education and to identify key variables of academic success. Most studies that have researched this topic have mainly focused on the importance of self-efficacy in online learning.

There is very little work examining the correlation between self-efficacy with the course and course satisfaction. Consequently, this research aimed to understand the extent to which students' perceived self-efficacy influences satisfaction with the course. The model was tested on two samples from Romania.

Background and Conceptualization

Background

The paradigm of student-centered education in the university environment places the student at the center of the educational process, with his needs and interests, with his unique and individual particularities, who actively participates in the construction of knowledge and have responsibility and autonomy in learning. In this context, student satisfaction is a premise of their involvement and engagement in learning behaviors. Lo (2010) showed that a high level of student satisfaction is associated with better learning. According to the author, student satisfaction refers to their subjective perceptions of three indicators of the learning environment that support academic success: instructor performance, student self-commitment to learning, and course policies.

In general, higher education institutions value student satisfaction (Douglas et al., 2015) with the learning environment and the quality of educational processes as an important indicator of the quality of education offered (Bayrak et al., 2020). In Romania, most universities are concerned with students' satisfaction in relation to the offered programs, educational process, teaching staff professionalism, resources and educational climate, academic community, extracurricular learning opportunities, and other services or offered conditions. It is important to underline that student satisfaction is often measured in relation to a particular course (Gibson, 2010; Green et al., 2015). In this respect, essential variables are offered by the course

Elena-Ancuța SANTI, Gabriel GORGHIU, Costin PRIBEANU. Perceived self-efficacy and course satisfaction in students preparing for teaching careers

PROBLEMS
OF EDUCATION
IN THE 21st CENTURY
Vol. 81, No. 5, 2023

689

content, the language used, information update, and effective teaching process (Munteanu et al., 2010), but also the particular level of training of the teaching staff and its availability and involvement in the entire teaching demarche (Băcilă et al., 2014). Near the course content and the organization of the teaching process, Arnerić et al. (2010) take into consideration the level of course acceptance and the practical implementation of the skills gathered by students.

Overall, the factors that influence the satisfaction of students preparing for teaching careers are numerous, but this study does not attempt to exhaustively identify and analyze them; in this research, we are interested in how self-efficacy with the course, operationalized into three variables - social self-efficacy, self-efficacy with self-regulated learning, and computer self-efficacy - influences satisfaction with the class. Doménech-Betoret et al. (2017) showed that students' perceived academic self-efficacy indirectly affects their satisfaction through the fulfillment of the latent variable expectancy-value beliefs, and other studies have shown that self-efficacy in online learning is a strong predictor of student satisfaction (Prifti, 2022; Shen et al., 2013).

Most research in this field has analyzed student satisfaction in relation to several external conditions and factors related to the educational environment, affective climate, quality of teaching, interaction with teachers and peers, development opportunities offered, or the specifics of the course (content, course design, the quality of learning materials, applicability, usefulness, etc.), but student satisfaction is also related to internal variables, such as perceived self-efficacy towards the course. When the learner has the belief that he/she can complete specific learning tasks, he/she will be more motivated and perseverant in overcoming obstacles and achieving good results. This belief in personal success correlates with the student's self-esteem and intrinsic motivation and is built gradually through the interpretation of information received from four main sources of influence: enactive mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states (Bandura, 1997, p. 79).

Teachers play a major role in developing students' self-efficacy by encouraging them and showing confidence in their ability to perform, through constructive feedback, appreciating the effort, providing support, and creating a positive learning environment. The benefits of developing self-efficacy are felt in individual performance, setting high goals, intrinsic motivation, personal achievement (DeFreitas & Bravo Jr., 2012; Schunk et al., 2008), well-being, stress resilience, educational acquisition, as an important element in building a resilient and balanced personality profile.

Research Model and Hypotheses

Academic self-efficacy is a multifaceted phenomenon (Bandura, 1997, p. 42) and manifests in several dimensions specific to academia. This research model relates satisfaction with the class with self-efficacy with the course. In turn, self-efficacy with the course is influenced by social self-efficacy, computer self-efficacy, and self-efficacy with self-regulated learning. The proposed research model is presented in Figure 1.

690

Figure 1
Research Model
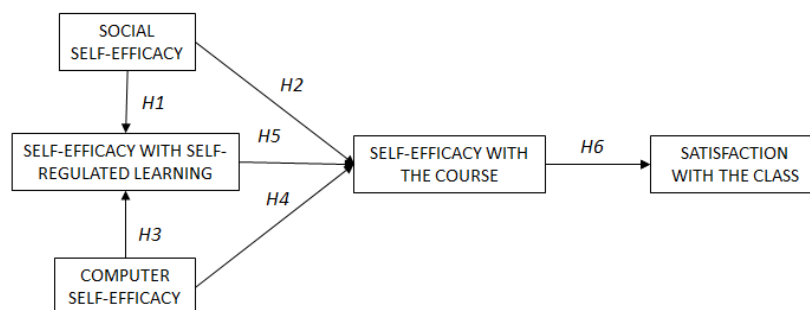
Self-efficacy with the course (SEC) refers to confidence in one's ability to take notes during class instruction, understand course literature, and perform well on class assignments.

Social self-efficacy (SSE) refers to confidence in one's ability to engage in social interaction tasks to develop or maintain positive interpersonal relationships (Smith & Betz, 2000, p. 286). Social self-efficacy links an individual's relationships and self-efficacy (Gazo et al., 2020) and includes skills such as participation in social activities as a member of a group, social initiative, friendly behavior patterns, and receiving and offering help (Gazo et al., 2020).

Social self-efficacy is a key aspect of social academic behavior. Students with high levels of social self-efficacy adapt and integrate easily into groups, develop social relationships with peers and relate appropriately to professors, are effective in group work tasks, value social-emotional skills (empathy, managing their own emotions, understanding the emotions of others), and develop a sense of belonging to the academic community. Akin and Akin (2016) showed that a high level of students' social self-efficacy correlates with life satisfaction. Social self-efficacy can affect the quality of individuals' interpersonal interaction, which is why it plays an important role in educational settings. In the present research, social self-efficacy (SSE) refers to how well students participate in class discussions, how well students can ask a question in class, and how well students can talk with professors.

> *H₁ Social self-efficacy has a positive influence on self-efficacy with self-regulated learning (SSE → SEA)*

Self-efficacy with self-regulated learning refers to the students' belief in their ability to self-regulate the learning process and to have an autonomous and active role in their own learning process: monitoring, controlling, and adapting strategies to achieve good results and their proposed goals. Self-regulation of learning is a complex process that involves the use of cognitive and metacognitive, motivational, and attitudinal strategies (Zimmerman, 1990, p. 4), as well as the ability to self-reflect. In the present research, self-efficacy with self-regulated learning (SEA) refers to how well students can finish homework assignments by deadlines, how well students can organize their schoolwork, and how well students can focus on school subjects.

> *H₂ Social self-efficacy has a positive influence on the self-efficacy with the course (SSE → SEC)*

Computer self-efficacy (CSE) refers to individuals' beliefs about their abilities to competently use computers (Compeau & Higgins, 1995). The results of a recent study (Zhao & Zhao, 2021) showed that perceived self-efficacy in computer use is characteristic of the

digital native generation and is related to the main factors proposed in the original technology acceptance model (TAM). In the present research, computer self-efficacy (CSE) refers to how well students can use a learning platform even if there is no one to teach them, if they can use a learning platform with minimal help, and if they can learn how to use a learning platform on their own.

H_3 *Computer self-efficacy has a positive influence on self-efficacy with self-regulated learning (CSE → SEA)*

H_4 *Computer self-efficacy has a positive influence on the self-efficacy with the course (CSE → SEC)*

H_5 *Self-efficacy with self-regulated learning has a positive influence on self-efficacy with the course (SEA → SEC)*

Satisfaction with the class refers to the degree to which students are satisfied with the fulfillment of their needs and expectations in that class. Student satisfaction with the class is the feeling of being pleased (satisfied) when one's expectations about class activities (learning outcomes, knowledge products, skills developed, cognitive acquisitions, relationship development, collaboration, projects, emotions and feelings, and others) are met. Fitriati et al. (2017) cited by Saroh and Arifmiboy (2022) stated that customer satisfaction is a feeling of contentment or disappointment felt as a result of evaluating perceived performance or products against the expectations held. In academia, the customers/ beneficiaries are the students, and the students' satisfaction is an important factor in achieving and maintaining a high level of performance (Saroh & Arifmiboy, 2022).

In the present research, satisfaction with the class (SAT) refers to students' feelings of contentment generated by the fulfillment of personal expectations towards the class and their perception of the contribution of the course to their personal and professional development.

H_6 *Self-efficacy with the course has a positive influence on satisfaction with the class (SEC → SAT)*

Research Methodology

General Background

Data has been collected at Valahia University of Targoviste. The participants came from two categories of courses so for each category, a separate sample has been collected.

Students have been asked to answer several general questions regarding age, gender, faculty and specialization, year of study, and discipline/course followed in the first semester of the 2022-2023 academic year, and then to evaluate the items on a 5-point Likert interval scale. The name or student ID has not been asked to ensure anonymity.

Samples

1st sample

The sample of students enrolled in the first year who complete, in parallel with the courses of the chosen specialization, also the courses that prepare and certify them for the teaching career, was formed by 146 students, 55 male, and 91 female, mostly between the ages of 19-29, randomly distributed among several faculties and specializations within the Valahia University: Faculty of Political Sciences, Letters and Communication, Faculty of Law and Administrative Sciences, Faculty of Orthodox Theology and Educational Sciences, Faculty of

692

Sciences and Arts, Faculty of Humanities, Faculty of Environmental Engineering and Food Science, Faculty of Materials and Mechanics Engineering, Faculty of Electrical Engineering, Electronics and Information Technology, Faculty of Economic Sciences. As regards the course/discipline of study from the curriculum of the Psychopedagogical Training Program in the first semester, the students participated in the *Educational Psychology* course.

2ⁿᵈ sample

This sample consisted of 180 students (43 male and 137 female), enrolled in the third year of study of their license programs of the abovementioned faculties, but also included students from master programs in Education, the second year of study, coming from the Faculty of Orthodox Theology and Educational Sciences. As regards the course/discipline of study, the licensed students participated in the *Computer Assisted Instruction* course, and the master students were involved in the *Virtual Environments for Education* and *Didactics of the Domain* courses - disciplines with pronounced technical issues. Taking into account that master students are part of the sample, their ages varied between 21 to 50 years old.

Instrument

The constructs and measures are presented in Table 1. The measures have been adapted from the existing scales in the literature (Bandura, 2006; Martin & Marsh, 2006; Greco et al., 2012; Filippou, 2019), following the respective phrasing (either question or statement). All items are evaluated on a 5-point Likert scale.

Table 1
Measures

SEA	Self-efficacy with self-regulated learning
SEA1	How well can you finish homework assignments by deadlines?
SEA2	How well can you organize your schoolwork?
SEA3	How well can you concentrate on school subjects?
SEC	**Self-efficacy with the course**
SEC1	How well can you understand course literature?
SEC2	How well can you write essay papers and assignments?
SEC3	How well can you take notes of class instruction?
SSE	**Social self-efficacy**
SSE1	How well can you participate in class discussions?
SSE2	How well can you ask a question in class?
SSE3	How well can you talk with professors?
CSE	**Computer self-efficacy**
CSE1	I can use a learning platform even if there is no one to teach me
CSE2	I can use a learning platform with minimal help
CSE3	I can learn how to use a learning platform on my own
SAT	**Satisfaction with the class**
SAT1	Overall, I am satisfied with this class
SAT2	This course contributed to my educational development
SAT3	This course contributed to my professional development

Data Analysis

The model was analyzed with Lisrel 9.3 for Windows (Mels, 2006), using the maximum likelihood estimation method. A two-step approach has been undertaken according to the recommendations from the literature (Anderson & Gerbing, 1988): (1) test the measurement model to analyze relationships between a construct and its measures, including construct validity, and (2) test the structural model to analyze relationships between constructs and check hypotheses.

Convergent validity has been assessed according to the recommended thresholds from the literature (Fornell & Larcker, 1981; Hair et al., 2006), as regards loadings magnitude (greater than 0.5), construct reliability (composite reliability, CR greater than .7), and average variance extracted (AVE, greater than 0.5). Discriminant validity has been assessed through the squared correlation test (Fornell & Larcker, 1981).

The model fit with the data has been assessed by using the following goodness of fit indices (Hair et al., 2006): chi-square (χ^2), degrees of freedom (*df*), χ^2/df, comparative fit index (*CFI*), non-normed fit index *(NNFI)*, the goodness of fit index (*GFI*), root mean square error of approximation (*RMSEA*), and standardized root mean square residual (*SRMR*).

Research Results

Model Testing Results: First Sample

The goodness of fit indices (GOF) indicated a good level of fit of the measurement model with the data: χ^2 = 119.63, *df*=80, *p* = .003, χ^2/df = 1.50, *RMSEA* = 0.058, *CFI* = 0.966, *NNFI* = 0.955, *GFI* = 0.905, *SRMR* = 0.0553.

The model has been analyzed for unidimensionality and convergent validity. The descriptive statistics and factor loadings are presented in Table 2.

All factor loadings are over.6 thus showing the unidimensionality of constructs. The mean values are over the neutral value of 3.00, which indicates a high perception of self-efficacy and satisfaction with the class. The observed scores for satisfaction with the class are over 4.50, much higher than the observed scores for self-efficacy.

Table 2
Descriptives and Factor Loadings (N = 146)

Item	*M*	*SD*	Loading
SEA1	3.95	1.03	.71
SEA2	3.85	0.94	.94
SEA3	3.90	0.85	.72
SEC1	3.98	0.79	.65
SEC2	3.92	0.85	.81
SEC3	3.73	0.90	.85
SSE1	3.62	1.05	.71
SSE2	3.75	1.07	.88
SSE3	4.14	0.91	.85
CSE1	4.15	0.99	.84
CSE2	4.09	0.98	.63
CSE3	4.00	1.01	.85
SAT1	4.73	0.57	.74
SAT2	4.75	0.53	.94
SAT3	4.66	0.63	.73

694

The convergent validity of constructs for the first sample is very good since the composite reliability (*CR*) and average variance extracted (*AVE*) are over the cut-off values of 0.7, respectively 0.5 (Fornell & Larcker, 1981). The discriminant validity is also good since the square root of *AVE* exceeds the correlation between constructs.

Table 3
Convergent, and Discriminant Validity (N=146)

	CR	AVE	SEA	SEC	SSE	CSE	SAT
SEA	.837	.635	**.797**				
SEC	.817	.600	.775	**.775**			
SSE	.856	.667	.527	.662	**.817**		
CSE	.821	.608	.412	.473	.295	**.780**	
SAT	.849	.655	.357	.395	.410	.219	**.809**

Note: The bold diagonal numbers represent the square root of AVE

The fit of the structural model with the data is also good, as shown by GOF indices: $\chi^2 = 124.09$, $df = 83$, $\chi^2/df = 1.50$, $CFI = 0.965$, $NNFI = 0.955$, $GFI = 0.903$, $RMSEA = 0.078$, $SRMR = 0.0584$. The model estimation results for the first sample are presented in Figure 2.

Figure 2
Model Estimation Results – First Sample (N = 146)
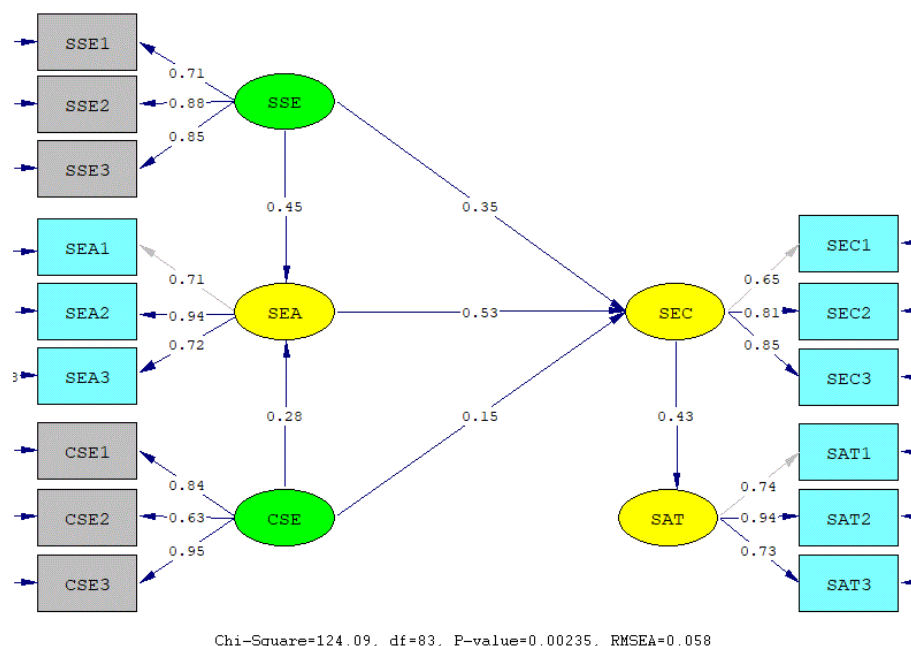
Chi-Square=124.09, df=83, P-value=0.00235, RMSEA=0.058

Social self-efficacy has a significant positive influence on both self-efficacy with self-regulated learning ($p < .001$) and self-efficacy with the course ($p < .001$) so H1 and H2 are supported. Computer self-efficacy has a significant positive influence on both self-efficacy with self-regulated learning ($p < .001$) and self-efficacy with the course ($p = .032$) so H3 and H4 are also supported. H5 and H6 are also supported since the paths from SEA to SEC ($\beta = .53$, $p < .001$) and from SEC to SAT ($\beta = .43$, $p < .001$) are significant.

The model explains a 35.1% variance in self-efficacy with self-regulated learning, 72.4% in self-efficacy with the course, and 18.4% in satisfaction with the class.

Model Testing Results: Second Sample

Testing the measurement model showed a good level of fit of the model with the data: $\chi^2 = 111.12$, $df = 80$, $p = .012$, $\chi^2/df = 1.39$, $RMSEA = 0.048$, $CFI = 0.976$, $NNFI = 0.968$, $GFI = 0.927$, $SRMR = 0.0522$.

The descriptive statistics (mean, standard deviation and factor loadings are presented in Table 4.

Table 4
Descriptives and Factor Loadings (N=180)

Item	M	SD	Loading
SEA1	3.68	1.04	.69
SEA2	3.71	0.99	.86
SEA3	3.74	0.89	.66
SEC1	3.77	0.93	.68
SEC2	3.82	0.85	.70
SEC3	3.58	0.83	.72
SSE1	3.64	1.06	.67
SSE2	3.67	1.08	.79
SSE3	3.89	0.97	.86
CSE1	4.07	0.99	.78
CSE2	4.17	0.93	.74
CSE3	3.92	1.07	.76
SAT1	4.26	0.84	.84
SAT2	4.30	0.87	.88
SAT3	4.29	0.88	.91

The mean values are over the neutral value of 3.00, which indicates a high perception of self-efficacy and satisfaction with the class. The observed scores for satisfaction with the class are over 4.25, higher than the observed scores for self-efficacy. All factor loadings are over 0.6 thus showing the unidimensionality of constructs.

The convergent validity for the second sample is very good since the composite reliability (*CR*) and average variance extracted (*AVE*) are over the cut-off values of .70, respectively .50 with one minor exception. The discriminant validity is also good since the square root of *AVE* exceeds the correlation between constructs, with one minor exception.
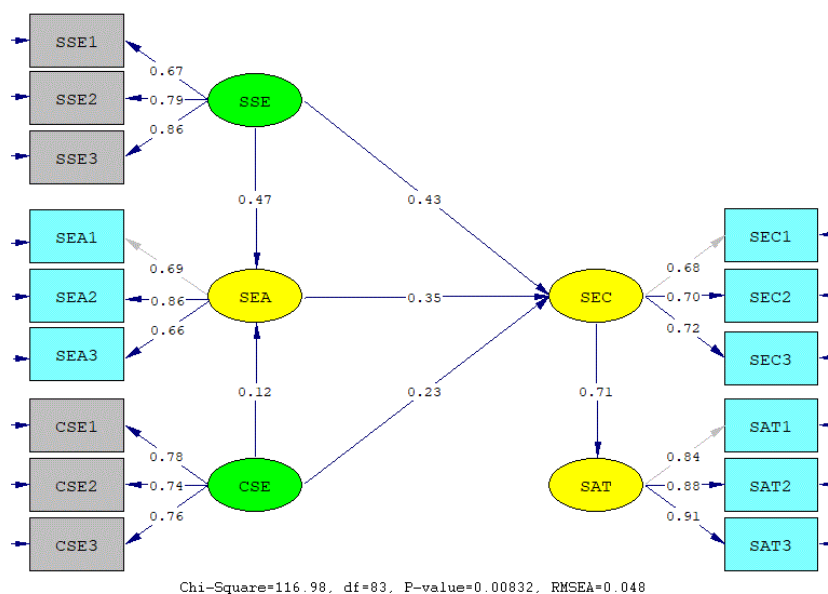
Table 5
Convergent, and Discriminant Validity (N = 146)

	CR	AVE	SEA	SEC	SSE	CSE	SAT
SEA	.784	.550	**.742**				
SEC	.743	.490	.661	**.700**			
SSE	.819	.604	.511	.694	**.777**		
CSE	.804	.578	.291	.443	.365	**.760**	
SAT	.909	.769	.397	.703	.497	.454	**.877**

Note: The bold diagonal numbers represent the square root of AVE

The fit of the structural model with the data is also good, as shown by GOF indices: $\chi^2 = 116.98$, $df = 83$, $\chi^2/df = 1.41$, *CFI* = 0.973, *NNFI* = 0.966, *GFI* = 0.923, *RMSEA* = 0.048, *SRMR* = 0.0571. The model estimation results for the first sample are presented in Figure 3.

Figure 3
Model Estimation Results – Second Sample (N=180)

Chi-Square=116.98, df=83, P-value=0.00832, RMSEA=0.048

The paths from SSE to SEA (β= .47, *p* < .001), SSE to SEC (β = .43, *p* < .001), and CSE

Elena-Ancuța SANTI, Gabriel GORGHIU, Costin PRIBEANU. Perceived self-efficacy and course satisfaction in students preparing for teaching careers

PROBLEMS
OF EDUCATION
IN THE 21st CENTURY
Vol. 81, No. 5, 2023

697

to SEC (β = .23, p = .004) are significant so the hypotheses H1, H2, and H4 are supported. The path from CSE to SEA is not significant therefore hypothesis H3 is not supported. The paths from SEA to SEC (β = .35, p < .001) and from SEC to SAT (β = .71, p < .001) are significant so the hypotheses H5 and H6 are also supported.

Overall, the model explains a 27.3% variance in self-efficacy with self-regulated learning, 63.8% in self-efficacy with the course, and 50.3% in satisfaction with the class.

Discussion

This research contributes with an empirically validated model that explains the relationship between self-efficacy with the course and satisfaction with the class. In this model, self-efficacy with the course has three antecedents: social self-efficacy, self-efficacy with self-regulated learning, and computer self-efficacy. Since the model has been cross-validated on a second sample, the scale is reliable for an exploratory study.

A closer examination of data reveals that SSE1 (participating in class discussion) and SSE2 (asking a question in class) have the lowest mean values of the respective construct. To increase self-efficacy, teachers should improve the teaching method by focusing on interactivity and leaving more time for students' questions. Last but not least, they should find ways to stimulate students to ask questions and discuss.

In both samples, the H1, H2, H4, H5, and H6 hypotheses were supported thus showing that social self-efficacy has a positive influence on self-efficacy with self-regulated learning (SSE → SEA); social self-efficacy has a positive influence on the self-efficacy with the course (SSE → SEC); computer self-efficacy has a positive influence on the self-efficacy with the course (CSE → SEC); self-efficacy with self-regulated learning has a positive influence on the self-efficacy with the course (SEA → SEC); self-efficacy with the course has a positive influence on satisfaction with the class (SEC → SAT).

Hypothesis H3 is confirmed only in the case of the first sample showing that computer self-efficacy has a positive influence on self-efficacy with self-regulated learning (CSE → SEA); for the second sample hypothesis H3 is not confirmed. In the present research, computer self-efficacy (CSE) refers to how well students can use a learning platform even if there is no one to teach them, how well they can use a learning platform with minimal help, and how they can learn how to use a learning platform on their own. Therefore, this result needs to be studied in future research to identify more clearly the factors that determine the differences in perception between the two groups of students, especially as the students in the second sample also used modern technology and educational platforms for online learning during the pandemic.

The research has revealed that there is a significant relationship between perceived self-efficacy with the course and satisfaction with the class. This result is consistent with the results of similar studies cited in this paper (Bandura, 1993; Kryshko et al., 2022; Prifti, 2022; Schunk & DiBenedetto, 2021; Shen et al., 2013).

The strength of the path from self-efficacy with the course to satisfaction with the class and the variance explained in the former variable shows that computer social self-efficacy and computer self-efficacy are important prerequisites for self-efficacy with the course which, in turn, has an important influence on the satisfaction with the class. The strength of the relationship between self-efficacy and satisfaction with the class is consistent with other findings in the literature. Recently, Bismala et al. (2022) found a strong correlation (.749 significant at 0.01 level) between self-efficacy and student satisfaction in using e-learning.

The results showed that respondents believe that social self-efficacy has a positive influence on self-efficacy with self-regulated learning and also on self-efficacy with the course, thus revealing the importance of developing students' social self-efficacy as an educational implication of this study. The role of the teacher must extend beyond the boundaries of knowledge

transfer, they must develop students' non-cognitive skills, attitudes, and self-esteem. Thus, the teaching methods should be interactive, and active-participatory, the feedback provided be constructive, and more emphasis to be placed on developing students' communication skills, critical thinking, and creativity and creating an effective climate conducive to personal development.

The results also showed that computer self-efficacy has a positive influence on the self-efficacy with the course, especially since post-pandemic education has integrated and valued the digital component in the educational process (learning platforms where students find courses and other useful learning materials, post assignments, communicate, socialize, etc.). This result was expected.

The findings of this study are in agreement with the ideas of Bandura's Social Cognitive Theory (1986), which supports the role of self-efficacy in achieving personal performance and well-being. According to the author, students' knowledge and cognitive skills are necessary but not sufficient for academic achievement, thus perceived self-efficacy is the lever that mobilizes the cognitive, affective, and motivational resources needed to succeed (Bandura, 1997, p. 227). In this sense, self-efficacy is a powerful inner resource with multiple benefits for students (Bandura, 1993; DeFreitas & Bravo Jr., 2012; Schunk et al., 2008; Schunk & DiBenedetto, 2021).

Since this study is exploratory, there are some inherent limitations. The first limitation is the small sample size, which is at limits for structural equation modeling requirements. The second limitation is that students come from only one university so results could not be generalized at the country level. The third limitation is related to the fact that second-year students were not included in the research sample.

Conclusions and Implications

In the academic context, and especially from the perspective of teacher career training, perceived self-efficacy has fundamental roles and benefits for both students and teachers. Understanding the importance of developing students' self-efficacy can transform the educational process into a positive experience full of opportunities both for its educational actors and for the educational environment as a whole.

In the context of a course, perceived self-efficacy refers to an individual's sense of competence concerning their ability to learn and perform well in the course. Believing that their efforts will lead to positive outcomes and anticipating the associated positive emotions will make students more engaged and willing to take responsibility for their learning. Thus, students with high levels of perceived self-efficacy are more active, and motivated to complete academic tasks. Also, students who are more confident in their ability to cope with academic demands are less anxious in learning and assessment situations and use their knowledge and skills more effectively. For them, failure is perceived as a temporary challenge to be overcome. Thus, students' confidence in their capabilities acts as a dynamic factor and facilitates active learning and engagement in course activities, which in turn increases their sense of self-efficacy, thus initiating a cycle in which success in prior learning leads to increased self-confidence and thus to future success. As a result, they will achieve better results, and be more creative, autonomous, and effective in learning. In addition, student self-efficacy has positive effects in overcoming obstacles/problem-solving, educational decision-making, managing stress, reducing exam anxiety and managing emotions in the assessment context, stimulating potential, and developing new skills that are important in everyday life and career.

Moreover, students with a high level of self-efficacy are more likely to choose fields of study and careers that match their interests and abilities, which contributes to long-term satisfaction. They also tend to set high but realistic goals and reach their full potential.

Also, in the academic environment, developed social self-efficacy is reflected in authentic and quality social and interpersonal relationships, as confidence in one's communication, cooperation, and conflict-resolution skills contribute to improving relationships and creating an educational climate conducive to personal and professional development. Teachers can contribute to students' increased confidence in their abilities and thus to good learning outcomes and course satisfaction.

One of the implications of studying student self-efficacy is to provide important clues for educational interventions for students with low self-efficacy. Teachers can recognize a range of indicators of low self-efficacy and implement strategies and interventions focused on improving their confidence and performance.

Being aware that self-efficacy is closely linked to students' intrinsic motivation for learning and self-esteem, teachers can devote more attention and effort to developing this dimension of students' personalities.

Conflicts of Interest

The authors declare no conflict of interest.

References

Akin, A., & Akin, U. (2016). Academic potential beliefs and feelings and life satisfaction: The mediator role of social self-efficacy. *Revista de Psicología Social, 31*(3), 500-520. https://doi.org/10.1080/02134748.2016.1190125

Anderson, J.C. & Gerbing, D.W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411-423. https://doi.org/10.1037/0033-2909.103.3.411

Arnerić, J., Talaja, A., & Prka, A. (2010). Developing Multivariate confirmatory technique in measuring students' satisfaction with the education process. *Croatian Operational Research Review*, *1*(1), 192-201. https://hrcak.srce.hr/94968

Bayrak, F., Tibi, M. H., & Altun, A. (2020). Development of an online course satisfaction scale. *Turkish Online Journal of Distance Education, 21*(4), 110-123. https://doi.org/10.17718/tojde.803378

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Prentice-Hall.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, *28*(2), 117-148. https://doi.org/10.1207/s15326985ep2802_3

Bandura, A. (1997). Self-efficacy: The exercise of control. Freeman.

Bandura, A. (2006). Guide for constructing self-efficacy scales. *Self-efficacy Beliefs of Adolescents*, *5*(1), 307-337.

Băcilă, M. F., Pop, M. C., Scridon, M. A., & Ciornea, R. (2014). Development of an instrument for measuring student satisfaction in business educational institutions. *Amfiteatru Economic Journal*, *16*(37), 841-856.

Bismala, L., Manurung, Y. H., Sirager, G.. & Andriany, D. (2022). The impact of e-learning quality and students' self-efficacy toward satisfaction in the use of e-learning. *Malaysian Online Journal of Educational Technology*, *10*(2), 141-150. http://dx.doi.org/10.52380/mojet.2022.10.2.362

Cassidy, S. (2016). The Academic Resilience Scale (ARS-30): A new multidimensional construct measure. *Frontiers in Psychology*, *7*, Article 1787. https://doi.org/10.3389/fpsyg.2016.01787

Compeau, D. R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS Quarterly*, *19*(2), 189-211. https://doi.org/10.2307/249688

DeFreitas, S. C., & Bravo Jr., A. (2012). The influence of involvement with faculty and mentoring on the self-efficacy and academic achievement of African American and Latino college students. *Journal of the Scholarship of Teaching and Learning, 12*(4), 1-11.

Doménech-Betoret, F., Abellán-Roselló, L., & Gómez-Artiga, A. (2017). Self-efficacy, satisfaction, and academic achievement: The mediator role of students' expectancy-value beliefs. *Frontiers in Psychology*. https://doi.org/10.3389/fpsyg.2017.01193

Douglas, J. A., Douglas, A., McClelland, R. J., & Davies, J. (2015). Understanding student satisfaction and dissatisfaction: An interpretive study in the UK higher education context. *Studies in Higher Education*, *40*(2), 329-349. https://doi.org/10.1080/03075079.2013.842217

700

Filippou, K. (2019). Students' academic self-efficacy in international master's degree programs in Finnish universities. *International Journal of Teaching and Learning in Higher Education*, *31*(1), 86-95. https://eric.ed.gov/?id=EJ1206968

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50. https://doi.org/10.2307/3151312

Gazo, A. M., Mahasneh, A. M., Abood, M. H., & Muhediat, F. A. (2020). Social self-efficacy and its relationship to loneliness and internet addiction among Hashemite university students. *International Journal of Higher Education, 9*(2), 144-155. https://doi.org/10.5430/ijhe.v9n2p144

Gibson, A. (2010). Measuring business student satisfaction: A review and summary of the major predictors. *Journal of Higher Education Policy and Management, 32*(3), 251-259. https://doi.org/10.1080/13600801003743349

Green, H. J., Hood, M., & Neumann, D. L. (2015). Predictors of student satisfaction with university psychology courses: A review. *Psychology Learning & Teaching*, *14*(2), 131–146. https://doi.org/10.1177/1475725715590959

Greco, A., Annovazzi, C., Palena, N., Camussi, E., Rossi, G. & Steca, P. (2022). Self-efficacy beliefs of university students: Examining factor validity and measurement invariance of the new academic self-efficacy scale. *Frontiers in Psychology*, *12*, Article 498824. https://doi.org/10.3389/fpsyg.2021.498824

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis*. (6ᵗʰ ed.). Prentice Hall.

Hu, L. T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to under parameterized model misspecification. *Psychological Methods*, *3*(4), 424-453. https://doi.org/10.1037/1082-989X.3.4.424

Jan, S. K. (2015). The relationships between academic self-efficacy, computer self-efficacy, prior experience, and satisfaction with online learning. *American Journal of Distance Education*, *29*(1), 30-40. https://doi.org/10.1080/08923647.2015.994366

Kryshko, O., Fleischer, J., Grunschel, C., & Leutner, D. (2022). Self-efficacy for motivational regulation and satisfaction with academic studies in STEM undergraduates: The mediating role of study motivation. *Learning and Individual Differences, 93*, Art. 102096, 1-12. https://doi.org/10.1016/j.lindif.2021.102096

Lo, C. C. (2010). How student satisfaction factors affect perceived learning. *Journal of the Scholarship of Teaching and Learning*, *10*(1), 47–54.

Mels, G. (2006). *LISREL for Windows: Getting started guide*. Scientific Software International.

Martin, A. J., & Marsh, H. W. (2006). Academic resilience and its psychological and educational correlates: A construct validity approach. *Psychology in the Schools*, *43*(3), 267-281. https://doi.org/10.1002/pits.20149

Munteanu, C., Ceobanu, C., Bobâlcă, C., & Anton, C. (2010). An analysis of customer satisfaction in a higher education context. *International Journal of Public Sector Management*, *23*(2), 124-140. https://doi.org/10.1108/09513551011022483

Prifti, R. (2022). Self–efficacy and student satisfaction in the context of blended learning courses. *Open learning: The journal of open, distance, and e-learning*, *37*(2), 111-125. https://doi.org/10.1080/02680513.2020.1755642

Saroh, M., & Arifmiboy, A. (2022). Students' satisfaction with using WhatsApp for online learning at the fifth semester students of the English education program. *Jurnal Pendidikan Tambusai*, *6*(1), 2703-2714. https://jptam.org/index.php/jptam/article/view/2921

Schunk, D. H., & DiBenedetto, M. K. (2021). Self-efficacy and human motivation. In A. J. Elliot (Ed.), *Advances in Motivation Science* (pp. 153-179). Elsevier Academic Press. https://doi.org/10.1016/bs.adms.2020.10.001

Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in education: Theory, research, and applications*. (3ʳᵈ ed.). Pearson/Merrill Prentice Hall.

Schwarzer, R., & Hallum, S. (2008). Perceived teacher self-efficacy as a predictor of job stress and burnout. *Applied Psychology: An International Review*, 57(Suppl 1), 152–171. https://doi.org/10.1111/j.1464-0597.2008.00359.x

Shen, D., Cho, M.-H., Tsai, C.-L., & Marra, R. (2013). Unpacking online learning experiences: Online learning self-efficacy and learning satisfaction. *The Internet and Higher Education*, *19*, 10-17. https://doi.org/10.1016/J.IHEDUC.2013.04.001

Smith, H. M., & Betz, N. E. (2000). Development and validation of a scale of perceived social self-efficacy. *Journal of Career Assessment, 8,* 283-301.

Tran, V. D. (2022). Perceived satisfaction and effectiveness of online education during the COVID-19 pandemic: the moderating effect of academic self-efficacy. *Higher Education Pedagogies*, *7*(1), 107-129. https://doi.org/10.1080/23752696.2022.2113112

Yi, M. Y. & Hwang, Y. (2003). Predicting the use of web-based information systems: self-efficacy, enjoyment, learning goal orientation, and the technology acceptance model. *International Journal of Human-Computer Studies 59*(4), 431-449. https://doi.org/10.1016/S1071-5819(03)00114-9

Zhao, C., & Zhao, L. (2021). Digital nativity, computer self-efficacy, and technology adoption: a study among university faculties in China. *Frontiers in Psychology, 12:* Art. 746292. https://doi.org/10.3389/fpsyg.2021.746292

Zimmerman, B. J. (1990). Self-regulated learning and academic achievement: An overview, *Educational Psychologist, 25*(1), 3-17. https://doi.org/10.1207/s15326985ep2501_2

Elena-Ancuța Santi *(Corresponding author)*	PhD, Lecturer, Teacher Training Department, Valahia University Targoviste, 35 Lt. Stancu Ion Street, 130105 Targoviste, Romania. E-mail: santi.anca84@gmail.com Website: https://www.researchgate.net/profile/Elena-Santi-2 ORCID: https://orcid.org/0009-0001-5691-5854
Gabriel Gorghiu	PhD, Professor, Teacher Training Department, Valahia University Targoviste, 35 Lt. Stancu Ion Street, 130105 Targoviste, Romania. E-mail: ggorghiu@gmail.com Website: https://www.researchgate.net/profile/Gabriel_Gorghiu ORCID: https://orcid.org/0000-0002-4026-345X
Costin Pribeanu	PhD, Senior Researcher, Academy of Romanian Scientists, Ilfov Street no. 3, sector 5, 050044 Bucharest, Romania. E-mail: costin.pribeanu@gmail.com Website: https://www.researchgate.net/profile/Costin_Pribeanu ORCID: https://orcid.org/0000-0001-8182-5909