



## **Student's Cynicism toward College Experience: Validation of the Italian Cynical Attitudes toward College Scale**

**Elisa Maiolo**

University "G. d'Annunzio", Italy, [e.maiolo@unich.it](mailto:e.maiolo@unich.it)

**Tiziana Ramaci**

Università di Enna Kore, Italy, [tiziana.ramaci@unikore.it](mailto:tiziana.ramaci@unikore.it)

**Giuseppe Santisi**

Università degli studi di Catania, Italy, [gsantisi@unict.it](mailto:gsantisi@unict.it)

**Alice Garofalo**

Università di Enna Kore, Italy, [alice.garofalo@unikorestudent.it](mailto:alice.garofalo@unikorestudent.it)

**Muhammad Shakil Ahmad**

Sohar University, Oman, [onlyshakil@gmail.com](mailto:onlyshakil@gmail.com)

**Massimiliano Barattucci**

Università di Bergamo, Italy, [massimiliano.barattucci@unibg.it](mailto:massimiliano.barattucci@unibg.it)

Referring to the institutional and research indications, those involved in higher education policies and management are formulating new plans to face, on the one hand, the decline in academic enrolments, on the other, the growing increase of early university-leavers. Academic drop-out and negative experiences and affect, in addition to being indicators of academic ineffectiveness, should be profitably analysed as well as their possible determinants to plan preventive policy measures and strategies. Despite the number of studies that have investigated variables related to learning and study experience, tools have yet to be defined to predict drop-out and delay in academic courses. Starting from the aforementioned assumptions and gaps, and with the aim of predicting academic drop-out and student's negative experiences, an adaptation to the Italian context of the Cynical Attitude Toward College Scale (CATCS) was proposed and its psychometric characteristic analysed through SEM. Moreover, the research investigated the possible role of Student Cynicism in predicting Achievement, and of Student's environmental perceptions in predicting Cynicism. Results showed that the CATCS can be profitably used in the Italian academic context: the CFA of the 11-item CATCS version showed that it is a reliable and valid measure.

**Keywords:** academic dropout, academic cynicism, online courses retention, learning environment perceptions, higher education

**Citation:** Maiolo, E., Ramaci, T., Santisi, G., Garofalo, A., Ahmad, M. S., & Barattucci, M. (2023). Student's cynicism toward college experience: Validation of the Italian cynical attitudes toward college scale *International Journal of Instruction*, 16(1), 295-310. <https://doi.org/10.29333/iji.2023.16117a>

## INTRODUCTION

Referring to the institutional (e.g., Lisbon Agenda) and research indications (e.g., Ketonen et al., 2016), those involved in higher education policies and management are formulating new plans to face, on the one hand, the decline in academic enrolments, on the other, the growing increase of early university-leavers (Barattucci, 2019). Academic drop-out and negative experience and affect (e.g., cynicism), in addition to being indicators of academic ineffectiveness, should be profitably analysed as well as their possible determinants (e.g., environmental, personal, and relational) to plan preventive policy measures and strategies (Şahinper et al., 2016). Despite the number of studies that have investigated variables related to learning and study experience, tools have yet to be defined to predict drop-out and delay in academic courses (Modarresi & Javan, 2018).

Furthermore, from a theoretical point of view, there are not many updated reference models used to explain the withdrawal or delay in academic studies; Long (1977) was the first author to propose that student's social withdrawal and academic disaffection could be related to their academic governance and learning environment perceptions. Tinto (1993) proposed that the academic environment is perceived by students as a set of micro-environments, contexts, and different experiences that influence student involvement and engagement. Micro-environments are made up of the environmental aspects like teaching, professors, and assessment methodologies, and a social micro-environment that includes the quantity and quality of social opportunities available at the university (Lodge et al., 2018). Similarly, organizational contributions underlined how perceptions of organizational management, climate, and work environment have similar effects on employee involvement and occupational cynicism (e.g., Vance et al., 1995; Wanous et al., 1994; Wei & Wang, 2015). Integrating theoretical references from educational and organizational literature, Brockway et al. (2002) proposed the development of a scale for measuring cynical attitudes toward college, in order to build an instrument that can give a measure of dissatisfaction with college experience, the decision to withdraw, attrition, and not met expectations (Brunsting et al., 2018; Zacks & Hen, 2018).

Academic cynicism is an attitude characterised by frustration and negative beliefs, which is mainly expressed in the presence of the disregarded student's expectations of the actual reality of the university experience (Lodge et al., 2018); these attitudes can be directed toward the university experience in general or more specific aspects of the university environment and organisation (Brockway et al., 2002). In all types of cynicism, there is, therefore, a mismatch between what the individual expects and what occurs in reality, "a way to cope with a world that is perceived less optimally than it could or should be" (Mirvis & Kanter, 1989). Most dropout students leave university during or immediately after the first year (Malau-Aduli et al., 2020; Naylor & Sanford, 1982; Tinto, 1993).

Obviously, there are many variables that can lead to academic withdrawal. One of the most common factors concerns integration in the university community. Some studies show that students who drop-out tend to be less integrated into the academic community

than those who finish their studies (Astin, 1984; Billson & Terry, 1987; Braxton, 2019; Braxton & Mundy, 2001-2002; Mclaughlin et al., 1998; Tinto, 1982; Tinto, 1993). Brower (1992) showed that the fulfillment (or the failure) of expectations influences the college integration process and consequently the persistence in the studies. Students will be better integrated into the university environment, and will therefore achieve greater success when they find what they are looking for. Inconsistencies between expected experiences and real experiences can occur in many aspects of the learning environment (teaching, assessment, organizational, social, and activities). Braxton, Vespar & Hossler (1995) showed that the match between academic and social expectations in students led to a positive influence on commitment and willingness to continue their studies (Pascarella & Terenzini, 2016; Villella & Hu, 1990). Long (1977) addressed how different levels of social withdrawal and university disaffection in students could be related to their academic governance perceptions; more specifically, Long suggests a four-component model to investigate the academic alienation based on students' perceptions of the academic environment: (a) the perception of the democratic way of governing the university; this concerns the way in which students perceive the university decision-making process (authoritarian or democratic); (b) the perception of a possible difference between the ideal way in which to implement changes within the university and the way actually used; (c) the perception by the students of the university characterised, or not, by an intellectually stimulating context for learning and personal development; (d) students' perception of having obtained real benefits from university education, from a future placement point of view. .

Recalling literature indications (Tinto,1993; Long, 1977; Kanter & Mirvis, 1989; Peterson, 1994) and theories, Brockway et al. (2002), suggest that students can develop distinct cynical attitudes directed toward the academic environment (Academic Cynicism) and the social environment (Social Cynicism). Brockway added a third target of student cynicism, dealing with university administrators, their leadership style, and their decisions, called Policy Cynicism. University cynicism has a fourth, more global form, directed towards the university institution as a whole, called Institutional cynicism. This occurs in students who negatively perceive multiple aspects of their university since their cynical attitudes have not been directed towards any specific domain.

### **Measuring Student Cynicism Toward College**

Relying on the above described theoretical framework, the Cynical Attitudes Toward College Scale (Brockway et al., 2002) was developed as a self-report questionnaire for measuring student cynicism and it is made up of 18 items. For each question, students respond on a 5-point disagree-agree Likert scale. Beyond the total score, this instrument provides 4 sub-scales: a) institutional cynicism (4 items), b) social cynicism (4 items), c) policy cynicism (4 items) and d) academic cynicism (6 items).

The institutional cynicism scale aims to measure the student's general impression of the overall academic environment, such as organisational pride and the satisfaction of participating in academic activities. The social cynicism scale aims to measure student perceptions about the social relationships that occur among students of the same (or of

different) faculties, and about the quantity and quality of social activities and facilities. Academic cynicism items are focused on students' perceptions of teaching and assessment methods, while the policy cynicism scale investigates the coherence and the efficacy of academic policies.

Confirmatory Factor Analysis (using a principal axis factoring method) confirmed a multidimensional structure of the student cynicism which is composed of 4 factors that tend to be moderately intercorrelated, with factor correlations ranging from .50 to .70 (Brockway et al., 2002) the factor loading of each sub-scale is sufficient and it is at least .50; the four sub-scales revealed a good internal consistency: institutional cynicism (alfa = .84), policy cynicism (alfa = .75), academic cynicism (alfa = .70) and social cynicism (alfa = .75). Regarding convergent and discriminant validity, correlation indexes both between the four CATCS sub-scales and between other instruments for measuring cynicism and similar constructs were investigated: the instrument showed a weak correlation (values below .20) with the trait and state anger scale and argumentativeness scale, a moderate negative correlation (values from - .20 to - .44) with generalized expectancies for future success, interpersonal trust, and Satisfaction with Life Scale, while CATCS showed a strong correlation (values from .40 to .72) with other instruments for measuring organisational cynicism and General Cynical World-view.

A preliminary investigation of the 18 items Italian version of CATCS showed that exploratory factor analysis did not fully correspond to the original dimensionality (Barattucci & Zuffo, 2012). A second investigation of the Italian version of CATCS was made up of 671 students from 3 different Italian universities (Zuffo et al., 2013). An exploratory Factor Analysis with all the 18 items involved in the questionnaire (retaining those items that previously highlighted a modest reliability score) showed some problems related to double and unclear factor loadings. A new FA was carried out, concerning the retained 3 factors (excluding Academic cynicism), resulting in a more satisfactory factor loading. In order to fully measure the Academic cynicism dimension and its related problems with the whole instrument, an EFA with only the Academic cynicism sub-scale items was carried out. The sub-scale showed a bi-factorial structure, the two sub-dimensions of the Academic Cynicism could be interpreted in relation to the specific Italian environment, which explains the student's perceptions of two distinct aspects of academic context: good teaching (item example: For many of my courses, going to class is a waste of time) and appropriate assessment (item example: I receive the grades I deserve). The FA carried out partially corresponds to the original dimensionality of the CATCS, resulting in a 3-factor structure.

These results suggested the importance of further improvements, revision and investigation of the modified Italian instrument, collecting a new sample of data with an adjusted questionnaire, and testing the modification of textual strings of some items, to give a definitively comparable Italian version of the survey.

The main aim of the present study was to re-adapt and validate the Italian version of the Cynical Attitudes Toward College Scale (CATCS) (Brockway et al., 2002; Zacks & Hen, 2018) in line with the Italian context, to build an instrument to form part of an assessment process of the students' overall academic experience, and be proposed as a

measure of drop-out or learning outcomes. In particular, the study aims to: 1) test the factorial structure of the 18 items version of the Italian CATCS through EFA and CFA; first, the mono-factorial model proposed, and secondly, the original 4-factor models will be tested. If no model is found to be replicable, we intend to identify a new factorial structure that better fits our data; 3) test the reliability of the CATCS; we intend to test the overall reliability and the reliability of each scale; 4) finally, basing on literature indications (Brockway, 2019; Brockway et al., 2002; Tinto, 1993;), the study tested the relationships between student's perceptions, cynicism and study outcomes, and the possible mediation role of academic cynicism between student's perceptions and outcomes, through SEM. More specifically, the study expected that:

*Hp1 - Student Achievements would be predicted by Student Cynicism which, in turn, would be predicted by Students' Course Perceptions;*

*Hp2 - Student Cynicism addition would possibly have a mediation role between Student's Course Perceptions and Student outcomes.*

## **METHOD**

### **Measures**

The Italian version of the Cynical Attitudes Toward College Scale (CATCS) is a self-report questionnaire for measuring student cynicism and it is made up of 18 items. For each question, students respond on a disagree-agree 5-point Likert scale. Beyond the total score, this instrument provides 4 sub-scales: a) Institutional cynicism (4 items); b) Social cynicism (4 items); c) Policy cynicism (4 items); d) Academic cynicism (6 items). Institutional cynicism items aim to measure the student's general impression of the overall academic environment, like academic pride, and the satisfaction in participating in academic activities (e.g., "I am proud to say I am a student at this institution"). Social cynicism items aim to measure student perceptions about social relationships and the quantity and quality of social and recovery activities (e.g., "It takes a great deal of effort to find fun things to do here"). Academic cynicism items are focused on students' perceptions of teaching and assessment methods (e.g., "I receive the grades I deserve"), while Policy cynicism items investigate the coherence and the efficacy of academic policies (e.g., "What the administration does is different from what they say they're going to do").

The process of translation and adaptation of the CATCS was divided into five phases. (1) The first phase involved two Italian psychologists with a good knowledge of English who translated the items individually. The three translations were compared, and a draft of the first agreed version was produced. (2) This version was administered to a small control group (N = 30) to test whether the items were understandable or not. The next stage (3) involved the back-translation of the Italian version carried out by a native English speaker for comparison with the original English version. The fourth phase (4) consisted of a new administration to a sample of 41 university students, and interviews conducted with small groups of students to test the semantic congruence between the interpretation given by participants and the meaning of items in their original English version. (5) Results from the preliminary study and the second investigation of the Italian version of the CATCS (Zuffo et al., 2008; Zuffo et al., 2013) suggested a

revision and adjustment of some textual strings of 2 items to better respond to cultural and contextual differences.

In order to test the relationships between cynicism toward college and other students' perceptions and study process variables, the following measures were also administered:

-Average user rating for declared exams (similar to grade point average – GPA), measured on a scale from 18.00 (lowest average rating) to 30.00 (highest average rating), supplied by students; the number of repeated exams: total number of repeated examinations declared per curriculum, supplied by students.

-*Perceptions of the learning environment* were measured through the Student Course Experience Questionnaire (SCEQ), in the Italian form of 23 items (Barattucci & Zuffo, 2012) including appropriate workload, good teaching, collegiality, and appropriate assessment scales. Responses were given through a 5-point scale (from 1 = “completely disagree” to 5 = “completely agree”).

-*Approaches to study* were measured through the Approach to Study Inventory, in the Italian form of 12 items (Barattucci & Zuffo, 2012) including deep approach and surface approach scales. Responses were given through a 5-point scale (from 1 = “completely disagree” to 5 = “completely agree”).

-*Key skills* were assessed through seven items (e.g., “My degree course has developed my problem-solving skills”), part of the Italian Student Course Experience Questionnaire (SCEQ) (Barattucci & Zuffo, 2012), and responses were given through a 5-point scale (from 1 = “completely false” to 5 = “completely true”).

-*Satisfaction* for the course was evaluated with a single item (“Overall, I am satisfied with the quality of this course”), rated on a 5-point Likert scale from 1 (disagree) to 5 (agree).

### **Participants**

Students from different departments and years of study (enrolled in the 2016-2017 and 2017-2018 academic years) at the University of Chieti-Pescara voluntarily participated in the study. They filled in the questionnaires individually and anonymously. 622 students completed the questionnaire. After deleting invalid data, the final sample consisted of 497 students aged between 19 and 57 years (mean age = 22.80, SD = 3.90).

A higher percentage (83.1%) of students were enrolled in a first-level degree course, while 14.1% were attending a second-level degree course. Participants were recruited on campus or in class and were asked to complete a questionnaire regarding college experience. Before the submission of the questionnaire, students were given general instructions and then completed a personal data form. The complete Italian adaptation of the CATCS was administered.

### *Data Analysis*

In order to find an optimal solution for the instrument that combined factorial structure with respect to the original instrument and reliability of the sub-scales, first exploratory analyzes (EFA and Item analysis), and then CFAs with different measurement models were carried out through SEM. All data analyses were conducted by using SPSS 22 and

M-Plus 7 (Muthén et al., 2016). SEM through M-Plus 7 was used to test hypotheses regarding relationships between students’ perceptions, cynicism, and study outcomes.

**FINDINGS**

**Item Analysis and Exploratory Factor Analysis**

First, the normality of the data was evaluated by computing the skewness and kurtosis of the distribution (Cain et al., 2017; Thode, 2022). The result showed that all the items were normally distributed. Then, item analysis was performed. Some items of the Academic Cynicism scale (items 6, 7, 9, and 10) had critical, though acceptable, kurtosis values (Hair et al., 2010; Lei & Lomax, 2005). Reliability analyses showed good results for the Institutional Cynicism scale ( $\alpha = .79$ ) and the Policy Cynicism scale ( $\alpha = .66$ ); this was not the case for the Academic Cynicism scale ( $\alpha = .58$ ) and the Social Cynicism ( $\alpha = .62$ ). Before deleting the unsatisfactory items that worsened the reliability of the scales (e.g., items 5, 6, 8, and 9 of the academic cynicism scale; item 11 of the social cynicism scale; item 4 of the policy cynicism scale), we improved an EFA (eigenvalues > 1, PCA, Oblimin) including all the 18 items. Values of sampling appropriateness (KMO = .828) and the Bartlett test of sphericity ( $\chi^2 = 2493.65$ ,  $p < .001$ ) showed the adequacy of the sample. Four factors were extracted, accounting for 53.03% of the variance. Items from the Social Cynicism scale (12, 13, and 14) were loaded on the first factor, together with items 4 (policy) and 16 (institutional) explaining the 26.59% of the variance. Factor 2 (10.05% of the variance explained) was constituted by items 1, 2, and 3 of the policy cynicism scale, together with items 11 (social), 15, and 17 (institutional). Items 7 and 10 of the Academic cynicism scale loaded on Factor 3, explaining the 8.54% of the variance. Items 5, 6, and 9 of the Academic cynicism scale loaded on the fourth factor, together with item 18 (institutional), explaining the 7.96%. Some items showed double saturations (18, 17). Some other EFAs were conducted. The EFAs' results suggested the exclusion of 4 items of the Academic Cynicism scale.

**Confirmatory Factor Analysis**

The validity of the model that emerged from the EFA was assessed by comparing it with 6 competing models, from 18 to 11 items, as described in detail in Table 1.

Table 1

CFA through SEM fit indices (the final model in bold) of the alternative measurement models, including the goodness of fit indices.

Model	CFA					
	$\chi^2$	df	$\chi^2/df$	TLI	CFI	RMSEA
18 items	779.02	129	6.03	.676	.727	.101
14 items	893.74	133	6.72	.632	.680	.107
13 items	447.93	61	7.34	.699	.764	.107
12 items	334.00	51	6.55	.780	.830	.106
11 items (a)	115.00	38	3.02	.916	.942	.06
11 items (b)	168.72	38	4.44	.865	.907	.08

18 items (Social = 12S, 13S, 14S, 4P; Academic = 5A, 6A, 7A, 8A, 9A, 10A; Institutional = 15I, 16I, 17I, 18I; Policy = 11S, 1P, 2P, 3P); 14 items (Social = 12S, 13S, 14S, 4P; Academic = 7A, 10A; Institutional = 15I, 16I, 17I, 18I; Policy = 11S, 1P, 2P, 3P); 13 items (Social = 12S, 13S, 14S, 11S; Academic = 7A, 10A; Institutional = 16I, 17I, 18I; Policy = 2P, 3P, 4P, 1P); 12 items (Social = 12S, 13S, 14S, 4P; Institutional = 15I, 16I, 17I, 18I; Policy = 11S, 1P, 2P, 3P); 11 items a (Social = 13S, 14S, 4P; Academic = 7A, 10A;

Institutional = 16I, 18I; Policy = 11S, 1P 2P 3P); 11 items b (Social = 13S, 14S 12S; Academic = 7A, 10A; Institutional = 16I, 17I 18I; Policy = 1P, 2P 3P).

The overall fit was assessed through the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Standardized Root Mean Square Residual (SRMR), the Akaike Information Criterion (AIC) (Schermelleh-Engel, Moosbrugger, & Müller, 2003) and the Bayesian information criterion (BIC). The Chi-Square ratio was also used. As shown, the expected model was the best-fitting model and provided a reasonable fit to the data (Quispe-Bendezú et al., 2020). RMSEA (.08) and SRMR (.06) showed an acceptable fit, the CFI (.91) showed a good fit, while the TLI (.87) and the Chi-Square/df ratio (4.44) were likewise not far from the given criterion. Also, BIC and AIC indices confirmed that our hypothesized model provided the best fit, indicating a more parsimonious and explanatory model. Table 2 reports the correlations (phi coefficients) between the extracted factors.

Table 2  
Correlation matrix (phi coefficients)

	1	2	3
1. Social Cynicism	-		
2. Academic Cynicism	.218	-	
3. Institutional Cynicism	.643	.273	-
4. Policy Cynicism	.442	.230	.397

Correlations provide an indication of good discriminant validity; in fact, the different factors were never too highly correlated. Figure 1 shows the final measurement model for the CATCS.

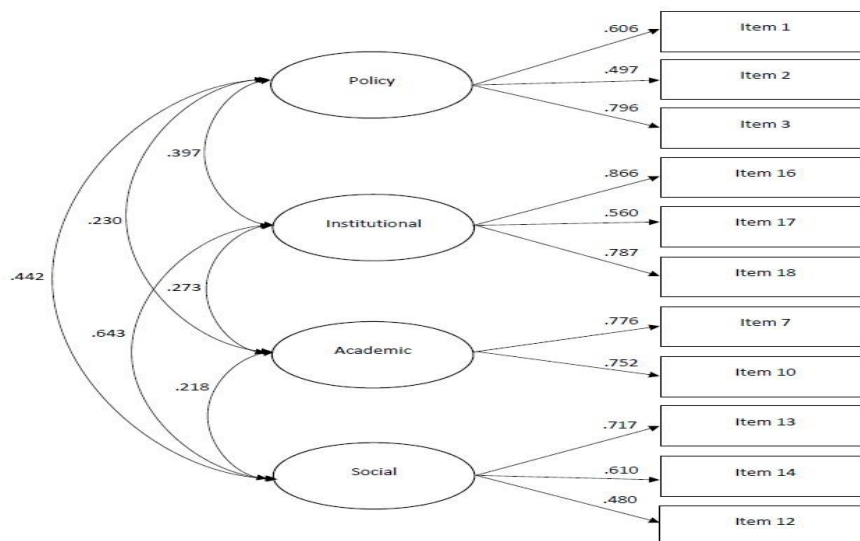


Figure 1  
Final factorial model for the 11 items Italian CATCS



### Descriptive statistics and Correlations

In relation to the differences between Bachelor and Master students, One-way Analysis of Variance (ANOVA) showed statistical significance for academic  $F(2,494) = 8.60$ ,  $p < .001$  and policy cynicism  $F(2,494) = 3.54$ ,  $p < .05$ . Bachelor Students (BS) perceive more high levels of academic cynicism ( $M = 3.10$ ;  $SD = 1.02$ ) than the Master ones ( $M = 2.58$ ;  $SD = .99$ ), whilst for what concerns policy cynicism Master Students (MS) perceive more high levels of policy cynicism than Bachelor Students ( $MS = 3.56$ ,  $SD = .86$ ;  $BS = 3.37$ ,  $SD = .76$ ).

The correlations showed that the higher the scores in student cynicism perceptions, the higher the repeated exams and the Surface Approach to study; whilst the lower the scores in student cynicism perceptions, the greater the scores in GPA and satisfaction, good teaching, collegiality, appropriate workload, key skills, and deep approach to study (Table 3 and 4).

Table 3  
Correlations between cynicism dimensions, study approach and perceptions

	Deep Approach	Surface Approach	Good Teaching	Collegiality	Appr. Workload	Appr. Ass.
Social Cynicism	-.131**	.183**	-.404**	-.298**	-.240**	-.099*
Academic Cynicism	-.095*	.179**	-.322**	-.049	-.189**	-.107*
Policy Cynicism	-.039	.237**	-.357**	-.085	-.230**	-.138**
Institutional Cynicism	-.193**	.196**	-.510***	-.276**	-.199**	-.110*
CATCS	-.138**	.284**	-.464***	-.274**	-.288**	-.109

\*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$

Table 4  
Correlations between cynicism dimensions and study outcomes

	Repeated exams	GPA	Satisfaction	Key Skills
Social Cynicism	.162**	-.276**	-.448***	-.231**
Academic Cynicism	.180**	-.354**	-.566***	-.101*
Policy Cynicism	.197**	-.230**	-.518***	-.171**
Institutional Cynicism	.141**	-.245**	-.570***	-.304***
CATCS	.189**	-.310***	-.555***	-.321***

\*\*\*  $p < .001$ ; \*\*  $p < .01$ ; \*  $p < .05$

### Models

As described above, to investigate our hypotheses we used Structural Equation Models. Regarding Hypothesis 1, we expected that Student Achievements would be predicted by Student Cynicism which, in turn, would be predicted by Students' Course Perceptions.

In addition, we intended to test also the mediation role of Student Cynicism between Students' Course Perceptions and Students' Achievements (Hypothesis 2).

Basing on literature indications (Brockway et al., 2002), a third model was also tested to verify that Satisfaction would be predicted by Student Cynicism which, in turn, would be predicted by Students' Course Perceptions.

To compare the models BIC and AIC indices were used (Table 5).

Table 5  
SEM fit indices (the final model in bold)

Model	BIC	AIC	CHI-Square	df	Chi-square/df	RMSEA	90% CI	CFI	TLI	SRMR
1	7941.50	7861.53	32.31	8	4.04	.08	.05-.11	.924	.857	.04
2	7944.69	7860.52	29.30	7	4.19	.08	.05-.11	.930	.850	.04
3	7866.30	7773.71	200.76	13	15.4	.17	.15-.19	.707	.527	.10

1. Students' perceptions > Cynicism > Achievement (GPA)
2. Students' perceptions > Cynicism (as mediator) > Achievement (GPA)
3. Students' perceptions > Cynicism > Satisfaction

In relation to Hypothesis 1, fit indices indicate a good fit. Regarding Hypothesis 2, the results supported the mediation role of Student Cynicism in the relationship between Students' Course Perceptions and Students' Achievements (Total Indirect Standardized Estimate = 0.133,  $p < .01$ ; Table 6).

Table 6  
Direct and indirect standardized estimates of the mediation model  
Model 2 Mediation role of Cynicism  
STDYX Standardization

	Estimate	SE	Est./SE	Two-tailed $p$ -value
Effects of Students' Perceptions to Academic Achievement				
Total	.303	.075	4.02	.000
Total Indirect	.133	.045	2.97	.003
Specific Indirect				
Academic Achievement				
Cynicism				
Students' Perceptions	.133	.045	2.97	.003
Direct				
Academic Achievement				
Students' Perception	.170	.096	1.765	.078

## DISCUSSION

The present study was aimed primarily at adapting and validating the Cynical Attitude Toward College Scale (CATCS), and then at evaluating if it can be profitably used as a measure of students' overall academic achievement, predicting drop-out or satisfaction.

The adaptation of the questionnaire involved several phases and different samples (Maiolo et al., 2020), and from the Italian version initially validated at 18 items, it was possible to find an optimal factorial solution to the 11-item measurement model.

The CFA of the 11-item CATCS version showed that it is a reliable measure of the relevant construct, highlighting satisfactory fit indices and internal consistency. Moreover, the sub-dimensions of the CATCS showed altogether a good discriminating validity.

The results also confirmed the models proposed in the literature (Long, 1977; Tinto, 1993), which hypothesize that student cynicism is determined by the perceptions of the

learning environment and that it is able to predict learning outcomes. More specifically, even the hypothesis that cynicism can represent a mediator between student perceptions and learning outcomes appears to be confirmed.

In particular, in addition to the influence of environmental perceptions (good teaching, collegiality, and appropriate workload), a relationship between the levels of cynicism and the approach to the study was highlighted and will certainly need to be further investigated. What seems clear is the impact of cynicism on outcomes both in terms of achievement and sentiment.

From the theoretical point of view, this seems to indicate a key role of the emotional experience and of the affects that arise from the interaction with the learning environments (Saville et al., 2018; Tremblay et al., 2008).

On the other hand, it is also true that cynicism seems to predict many study outcomes, including achievement and satisfaction, and this appears entirely in line with Long and Tinto's theories on the dropout and withdrawal (Kasalak, 2019; Mirzaei-Alavijeh et al., 2022).

In examining the results it is necessary to refer to some limitations of the study: the sampling was more of convenience than probabilistic nature; moreover, the nature and size of the sample limit its generalizability in other academic and cultural contexts.

It would be useful if future researchers verify the effectiveness or adapt this tool for measuring cynicism toward college in online learning contexts given their high level of withdrawal and dropout. Data for scale validation was only collected from Italy, which may limit the generalisability of this research. Future research could test and validate the scale in multicultural contexts to test and enhance its reliability.

Future research should investigate the applicability of the tool in academic distance learning contexts since some studies on student success in online courses seem to highlight retention and progression as priority issues (Barattucci et al., 2021).

Since symptoms of demotivation, low progression rates, and disengagement can arise from individual characteristics (technical skills, IT competencies, self-management, etc.). (Aikina & Bolsunovskaya, 2020; González et al., 2021; Hirsch & Rivers, 2019), universities should consider also monitoring these variables in order to implement specific interventions and tutoring (Lowenthal et al., 2015; Selvi, 2010). In the case of online academic courses, several indicators were highlighted in the literature that dropout and study delay proved to be related to the following environmental factors: (a) the course design characteristics, such as course variety, structure, applicability, perceived usefulness, etc.; (b) the perceptions of the quality of the digital platform, of its usability, social interaction, and of content presentation; (c) timely support, facilitation and feedback from tutors (Lister, 2014; Toraman et al., 2020).

What is clear today is that even if distance learning university appears very different from physical college, academic management should consider acting on both digital learning environment and social interaction aspects (Dahalan et al., 2013; Gedik et al.,

2013; Swaner al., 2014) to ensure high levels of student retention and progression (Adeniji et al., 2018; Allen & Seaman, 2008; Moore & Fetzner, 2009;).

Summing up, what is clear is that academic cynicism can be directed toward specific aspects of the learning environment or represents an indicator of general dissatisfaction with the college experience, and it derives from a mismatch between what the student expects and what occurs in reality (Mirvis & Kanter, 1989).

The need to have these tools available in different learning contexts (physical and online) allows academic management to monitor environmental and contextual factors that can be modified to reduce student dropout and to act on individuals with specific programs and interventions. These issues seem particularly beneficial in online learning contexts due to the high levels of dropout and withdrawal (Quispe-Bendezú et al., 2020; Cochran et al., 2014), but measures should be adapted to fully grasp the specificities of these learning contexts (Glazier, 2016).

## REFERENCES

- Adeniji, S. M., Ameen, S. K., Dambatta, B. U., & Orilonise, R. (2018). Effect of Mastery Learning Approach on Senior School Students' Academic Performance and Retention in Circle Geometry. *International Journal of Instruction*, 11(4), 951-962. <https://doi.org/10.12973/iji.2018.11460a>
- Aikina, T. & Bolsunovskaya, L. (2020). Moodle-Based Learning: Motivating and Demotivating Factors. *International Journal of Emerging Technologies in Learning*, 15(2), 239-248. <https://doi.org/10.3991/ijet.v15i02.11297>
- Allen, I. E. & Seaman, J. (2008). *Staying the Course: Online Education in the United States*. Sloan Center for Online Education.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25, 297-308.
- Barattucci, M. & Zuffo, R. G. (2012). Measuring learning environment perceptions: Validation of the Italian version of the Approaches to Studying Inventory and the Student Course Experience Questionnaire. *TPM- Testing, Psychometrics, Methodology in Applied Psychology*, 19(1), 15-33. <https://doi.org/10.4473/TPM19.1.2>
- Barattucci, M., Zakariya, Y. F., & Ramaci, T. (2021). Academic achievement and delay: A study with italian post-graduate students in psychology. *International Journal of Instruction*, 14(4), 1-20. <https://doi.org/10.29333/iji.2021.1441a>
- Barattucci, M. (2019). Predicting Learning Outcomes in Distance Learning Universities: Perspectives from an Integrated Model. In *Communications in Computer and Information Science* (vol. 1091, pp. 30-40). Springer.
- Barattucci, M., Pagliaro, S., Cafagna, D., & Bosetto, D. (2017). An examination of the Applicability of Biggs' 3P Learning Process Model to Italian University. *Journal of e-learning and knowledge society*, 13, 163-180.

- Billson, J. M. & Terry, M. B. (1987). A student retention model for higher education. *College and University*, 62, 290–305.
- Braxton, J. M. (2019). Leaving College: Rethinking the Causes and Cures of Student. *Journal of College Student Development*, 60(1), 129-134 (Review). <https://doi.org/10.1353/csd.2019.0012>
- Braxton, J. M. & Mundy, M. E. (2001-2002). Powerful Institutional Levers to Reduce College Student Departure. *Journal of College Student Retention: Research, Theory & Practice*, 3(1), 91-111. <https://doi.org/10.2190/M127-V05B-5E5J-F9LQ>
- Braxton, J. M., Vesper, N., & Hossler, D. (1995). Expectations for college and student persistence. *Research in Higher Education*, 36, 595–611. <https://doi.org/10.1007/BF02208833>
- Brockway, J. H., Carlson, K. A., Jones, S. K., & Bryant, F. B. (2002). Development and validation of a scale for measuring Cynical Attitudes Toward College. *Journal of Educational Psychology*, 94 (1), 210-224. <https://doi.org/10.1037//0022-0663.94.1.210>
- Brower, A. M. (1992). The “second half” of student integration: The effects of life task predominance on student persistence. *The Journal of Higher Education*, 63, 441–462. <https://doi.org/10.1080/00221546.1992.11778378>
- Brunsting, N. C., Zachry, C., & Takeuchi, R. (2018). Predictors of undergraduate international student psychosocial adjustment to US universities: A systematic review from 2009-2018. *International Journal of Intercultural Relations*, 66, 22-33. <https://doi.org/10.1016/J.IJINTREL.2018.06.002>
- Cain, M. K., Zhang, Z., & Yuan, K.-H. (2017). Univariate and multivariate skewness and kurtosis for measuring nonnormality: Prevalence, influence and estimation. *Behavior Research Methods*, 49, 1716-1735. <https://doi.org/10.3758/s13428-016-0814-1>
- Cochran, J. D., Campbell, S. M., Baker, H. M., & Leeds, E. M. (2014). The role of student characteristics in predicting retention in online courses. *Research in Higher Education*, 55(1), 27–48. <https://doi.org/10.1007/S11162-013-9305-8>
- Dahalan, N., Hasan, H., Hassan, F., Zakaria, Z., & Noor, W.A.W.M. (2013). Engaging students online: does gender matter in adoption of learning material design? *World Journal on Educational Technology*, 5(3), 413–419.
- Gedik, N., Kiraz, E., & Ozden, M. Y. (2013). Design of a blended learning environment: considerations and implementation issues. *Australasian Journal of Educational Technology*, 29(1), 1–19. <https://doi.org/10.14742/AJET.6>
- Glazier, R. A. (2016). Building rapport to improve retention and success in online classes. *Journal of Political Science Education*, 12(4), 437–456. <https://doi.org/10.1080/15512169.2016.1155994>
- González, I., Vázquez, M. & Zavala, M. (2021). Demotivation and its relation with academic and psychosocial factors in university students. *Revista Digital de*

*Investigación en Docencia Universitaria*, 15(2), e1392.  
<https://doi.org/10.19083/10.19083/ridu.2021.1392>

Hair, J. F., Black, W. C., & Babin, B. J.. (2010). *Multivariate data analysis* (4. ed). Pearson Education International.

Hirsch, G. S., & Rivers, S. (2019). Demotivation as a factor in the academic performance of EFL students in the Catholic University of Santiago de Guayaquil, Ecuador. *Espacios*, 40(19), 17.

Kanter, D. L. & Mirvis, P. H. (1989). *The cynical Americans: Living and working in an age of discontent and disillusion*. Jossey-Bass Publishers.

Kasalak, G. (2019). The Relations between student cynicism and students' life satisfaction. *International Journal of Contemporary Educational Research*, 6(2), 325-337. <https://doi.org/10.33200/ijcer.586635>

Lei, M. & Lomax, R. G. (2005). The Effect of Varying Degrees of Nonnormality in Structural Equation Modeling. *Structural Equation Modeling*, 12(1), 1–27. [https://doi.org/10.1207/s15328007sem1201\\_1](https://doi.org/10.1207/s15328007sem1201_1)

Lister, M. (2014). Design of e-learning and online courses: a literature analysis. *Journal of Online Learning and Teaching*, 10(4), 671–680.

Lodge, J. M., Kennedy, G., Lockyer, L., Arguel, A., & Pachman, M. (2018). Understanding Difficulties and Resulting Confusion in Learning: An Integrative Review. *Frontiers in Education*, 3, 49. <https://doi.org/10.3389/educ.2018.00049>

Long, S. (1977). Academic Disaffection and the university student. *Educational Studies*, 3, 67-79. <https://doi.org/10.1080/0305569770030106>

Lowenthal, P. R., Bauer, C., & Chen, K. Z. (2015). Student perceptions of online learning: an analysis of online course evaluations. *American Journal of Distance Education*, 29(2), 85–97. <https://doi.org/10.1080/08923647.2015.1023621>

Maiolo, M. E., Ramaci, T., Santisi, G., & Barattucci, M. (2020). Cynicism toward university: a measure to predict academic dropout? Validation of the Italian version of the Cynical Attitudes Toward College Scale and perspectives for online learning environments. *Second International Workshop on Higher Education Learning Methodologies and Technologies Online, HELMeTO*. ISBN 978-88-99978-22-8

Malau-Aduli, B. S., Ray, R. A., O'Connor, T., van der Kruk, Y., Alele, F. O., & Bellingan, M. (2020). Dealing with Academic Difficulty in Medical School: A Pilot Study. *Education Sciences*, 10, 83. <https://doi.org/10.3390/educsci10030083>

Mclaughlin, G. W., Brozovsky, P. V., & Mclaughlin, J. S. (1998). Changing perspectives on student retention: A Role for Institutional Research. *Research in Higher Education*, 39, 1–17. Retrieved december 12, 2021 from <http://www.jstor.org/stable/40196265>.

- Mirvis, P. H. & Kanter, D. L. (1989). Combatting cynicism in the workplace. *National Productivity Review*, 8, 377-394. <https://doi.org/10.1002/npr.4040080406>
- Mirzaei-Alavijeh, M., Jalili, C., Farshid, S., Mirzaei-Alavijeh, N., Babakhani, F., & Jalilian, F. (2022). What Is the Status of Academic Cynicism and Its Relationship with Academic Variables Among Kermanshah University of Medical Sciences Students?. *Journal of Health Reports and Technology*, 8(2), e122873. <https://doi.org/10.5812/ijhls-122873>
- Modarresi, G., & Javan, E. (2018). Construction and Validation of Foreign Language Learners' Dropout Questionnaire. *International Journal of Instruction*, 11(4), 425-444. . Retrieved December 7, 2021 from <https://files.eric.ed.gov/fulltext/EJ1191682.pdf>
- Moore, J. C. & Fetzner, M. J. (2009) The road to retention: a closer look at institutions that achieve high course completion rates. *Journal of Asynchronous Learning Networks*, 13(3), 3–22. Retrieved May 15, 2021 from <https://www.learntechlib.org/p/104045/>.
- Muthén, B., Muthén, L. K., & Asparouhov, T. (2016). *Regression and Mediation Analysis using Mplus*. Muthén & Muthén.
- Naylor, P. D. & Sanford, T. R. (1982). Intrainstitutional Analysis of Student Retention across Student Levels. *College and University*, 57 (2), 143-59.
- Pascarella, E. T. & Terenzini, P. T. (2016). Predicting Freshman Persistence and Voluntary Dropout Decisions from a Theoretical Model. *The Journal of Higher Education*, 51(1), 60-75. <https://doi.org/10.1080/00221546.1980.11780030>
- Peterson, R. A. (1994). A Meta-Analysis of Cronbach's Coefficient Alpha. *Journal of Consumer Research*, 21, 381-391. <https://doi.org/10.1086/209405>
- Quispe-Bendezú, L. E., Rey Araujo-Castillo, L., García-Tejada, J. E., García-Tejada, J., Sprock, A. S., & Villalba-Condori, K. O. (2020). Relationship between Academic Procrastination and Attributions of Achievement Motivation. *International Journal of Learning, Teaching and Educational Research*, 19(1) 1, 188-205. <https://doi.org/10.26803/ijlter.19.1.11>
- Şahin, Ş., Arseven, Z., & Kılıç, A. (2016). Causes of Student Absenteeism and School Dropouts. *International Journal of Instruction*, 9, 195-210.
- Saville, B. K., Bureau, A., Eckenrode, C., & Maley, M. (2018). Passion and burnout in college students. *College Student Journal*, 52(1):105–17. ISSN-0146-3934
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the Fit of Structural Equation Models: Tests of Significance and Descriptive Goodness-of-Fit Measures. *Methods of Psychological Research*, 8(2), 23–74.
- Selvi, K. (2010). Motivating factors in online courses. *Procedia- Social and Behavioral Sciences*, 2(2), 819–824. <https://doi.org/10.1016/j.sbspro.2010.03.110>

- Swan, K., Day, S., Bogle, L., & Matthews, D. (2014). A collaborative, design-based approach to improving an online program. *Internet and Higher Education, 21*, 74–81. <https://doi.org/10.1016/J.IHEDUC.2013.10.006>
- Thode, H. C. Jr. (2002). *Testing for Normality*. Marcel Dekker
- Tinto, V. (1982). Limits of theory and practice in student attrition. *Journal of Higher Education, 53*(6), 687–700.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition*. University of Chicago Press.
- Toraman, Ç., Özdemir, H. F., Aytuğ Koşan, A. M., & Orakcı, Ş. (2020). Relationships between Cognitive Flexibility, Perceived Quality of Faculty Life, Learning Approaches, and Academic Achievement. *International Journal of Instruction, 13*(1), 85-100. <https://doi.org/10.29333/iji.2020.1316a>
- Tremblay, P. F., Harris, R., Berman, H., MacQuarrie, B., Hutchinson, G. E., Smith, M. A., Braley, S., Jelley, J., & Dearlove, K. (2008). Negative Social Experiences of University and College Students. *Canadian Journal of Higher Education, 38*(3), 57-75. <https://doi.org/10.47678/cjhe.v38i3.502>
- Villella, E. F. & Hu, M. (1990). College choice as a linking variable between recruitment and retention. *Journal of Marketing for Higher Education, 3*(1), 79-88.
- Wei, X., & Wang, R. (2015). Exploring the Relations Between Student Cynicism and Student Burnout. *Psychological Reports: Employment Psychology & Marketing, 117*(1), 103-115. <https://doi.org/10.2466/14.11.PR0.117c14z6>
- Zacks, S. & Hen, M. (2018). Academic interventions for academic procrastination: A review of the literature. *Journal of Prevention & Intervention in the Community, 46*(2), 117-130. <https://doi.org/10.1080/10852352.2016.1198154>
- Zuffo, R. G., Maiolo, M. E., & Cortini, M. (2013). Student cynicism: An Initial Italian validation of CATCS (Cynical attitudes toward college scale). *Procedia- Social and Behavioral Sciences, 84*, 283-287. <https://doi.org/10.1016/j.sbspro.2013.06.552>