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Academic Optimism and Its Relationship to the Efficiency of Confrontation in Light of the Transformation of the Academic System into Three Semesters

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Abstract: This study aims to identify the academic optimism scale and the confrontation efficiency scale to know the extent of the relationship between them in light of applying the new system in university education. The study has been done according to three semesters- the summer semester has not been included. After conducting the appropriate statistical analysis and answering the study questions, the researcher will discuss the results. The research sample consists of 350 university students from Prince Sattam Bin Abdulaziz University. The author constructed a survey by applying a Google form survey to collect the data and analyze it using the statistical method. The results reveal that after changing the educational system into three semesters, both efficient confrontation and optimistic education have been high and there has been a positive statistical coefficient between them. The study also sheds light on the advantages and disadvantages of changing the education system to three semesters from the perspective of university students.

Keywords: Confrontation Efficiency, Academic Optimism, Three Education Semesters, Saudi university students.

1 Introduction

Many educational organizations (schools and universities) struggle with a decline in the thinking level of their students and that is attributed to focusing on the low level of knowledge (such as terminology, facts, and knowing theories, etc.) and understanding (including consciousness, facts, and basics, explaining plans, graphs, and figures). With this simple level of knowledge and understanding, students do not have the ability to rise to advanced levels of learning. As a result, this generation does not have enough practical skills of creativity to tackle the problems they face in their society. In spite of various invitations to teach brainstorming and creativity in our schools and universities, traditional and field practices still prevent these ideas from coming true.

Resilience is commonly considered a path to confrontation with negative circumstances [1, 2]. The definition of resilience is highlighted by researchers as a state achieved through stressful and traumatic conditions which would eventually extract benefits for the individual. Besides, resilience has been applied to extend social cells at various levels under tragedies and catastrophes [3, 4]. Previous studies demonstrate that individuals, such as students through their university life, who possess a high level of resilience, have the ability to confront sudden situations efficiently [5]. So, since youngsters need to confront difficulties and challenges in their lives, this would create a sense of resilience which ultimately weighs on the scale of mental health as it supports individuals with all skills needed to control their interaction with life issues [6, 7, 8]. Due to some situations, many individuals suffer from depressive symptoms and emotional obstacles for a long duration of time [9].

University students enter higher education accompanied by some impurities including economic demands and psychosocial and mental health problems [10] One of the studies presented many factors that contribute to boosting students' academic progress as the positive effect of teachers' academic optimism [11]. According to Al Nuaimi, H. [12], university students start their education life without previous knowledge of how to control their stressors and obstacles, hence, the effect of psychosocial and mental troubles is reflected as weakness in social performance with depressive feelings [13, 14].

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2 Objectives and Study Questions:

The university stage plays a vital role in the educational system since it is the source of raising leaders of the future who contribute to the development and progress in all fields. This progress occurs by building students' ability to confront increasing changes in our world. Those critical changes that face our students, such as changing the education system from two semesters to three, would consequently put pressure on teachers as well as students and, as a result, provide the generation with confrontation skills. To my knowledge, no previous study has yet discussed academic optimism and confrontation efficiency among university students under changing the education systems from two semesters to three. Therefore, the research seeks the following questions:

- What is the level of confrontation efficiency the university students have under changing the educational system to three seasons?
- What is the level of optimistic education for university students under changing the educational system to three semesters?
- Is there a correlation relationship that is statistically significant at the level ($\alpha \le 0.05$) between optimistic education and confrontation efficiency under changing the educational system to three semesters?
- What are the advantages and disadvantages of the three-semester education system from a university student's perspective?

3 Literature Review

Various studies try to cover different sides of the education field and try to support the system with scientific and imperial facts starting with the tools of the system to studying the traits and skills of the individuals of the system.

One model that is constructed to fill the gaps between different types of resilience research is multi systems models of resilience (MSRM). In this model, resilience is presented through a multi-dimension system consisting of three spheres with overlapping levels. The first level covers the trait-individual factors such as characteristics inside the human that make resilience easier. The second level revolves around internal resilience by focusing on implicit factors- individuals with inter differences and the development of personal characteristics throughout time. The last level is about external resilience that highlights the uniqueness of circumstances inserted within a larger socio-ecologic milieu for each individual [15]. From the academic side [16] Pursued to understand the relationship between a teacher's academic optimism with other factors such as individual characteristics, and identity style: informational, normative, avoidance identity style, and identity commitment. The study was applied on a population of 303 teachers from primary and middle schools. The research yielded that teachers possess an informational identity style and this is a significant predictor of the teacher's academic optimism.

Nader & Ali, 2021 presented the confrontation of efficiency among middle school students and tried to check its relationship with two variables: gender (male, female) and educational specialization (scientific, literary). The results of the research showed that the efficiency of confrontation of males from the sample is significant but there is no difference between students based on the educational background (scientific and literay) [17].

One research studied the correlation between resilience and depression symptoms besides social support. The study is applied among university students who come from public and private universities. The researchers reached that having social support from friends to face depression had significantly affected resilience. Therefore, university students who have high levels of social support and low levels of depressive symptoms develop higher levels of resilience) [18].

Another study applied the definition of confrontation on a different category, which is football players, to check the relationships between confrontation, psychological immunity, and self-differentiation. The result showed a significant correlation between confrontation and the two other factors [19].

Liu, Wang, & Zhou, 2022 used Meta-analysis to investigate the relationship between resilience and mindfulness. The sample of the study was 20 samples from university students' environments. The result reached that resilience and mindfulness are correlated with a moderate effect (r=0.465) and both factors play a vital role in progressing the competencies in the field of sustainable development of education [20].

Suyadi, Dwi Selvi, Sibawaihi, Umy Zahroh, & Muassomah, 2023 considered the side effects of online learning on the learning outcome of Indonesian children exposed to different barriers. This study applied Google Form survey on 1229 elementary school students. The research showed that online education systems take away important skills from students such as academic outcomes, life skills, confidence in expressing their opinions, understanding subject matters,



and achievements in projects. This result reflected the essential role of the education system to build children with welfare, academic achievement abilities, and competitiveness [21].

In the field of improving the learning quality process, Rohayati, Syihabuddin, Anshori, & Sastromiharjo [21], presented a scientific argument. This study is applied on 200 students involved in scientific fields: physics, chemistry, mathematics, and biology by using quasi-experimental. The sample was divided into two groups: an experimental group and a control group. The final result of the study pointed out that the experimental group was significant in giving an Explanation of how to make scientific arguments while the control group was not.

Staddon touches on the factors that play vital roles in using technology efficiently in university student's education life. This study reaches that attitude and confidence affect students' use of technology [23].

4 Methodologies

4.1. Statistical Standard

The fifth Likert scale is considered to correct the study tools by giving each part of the survey one degree from the degrees of the scale (strongly agree, agree, neutral, disagree, strongly disagree) and they are ordered numerically (5, 4, 3, 2, 1). The next scale is considered to analyze the result:

From 100-2.33 Small

From 2.34-3.67 Medium

From 3.68- Large

The scale is calculated by using this equation: $\frac{\text{The highest level of the scale(5)-The lowest level of the scale(1)}}{\text{The number of categories (3)}} \quad \frac{5-1}{3} = 1.33$

Then add the answer to the end of each interval.

4.2. Construct validity: A Measure of Confrontation Efficiency

To extract the indicators of construct validity for the measure, the correlation coefficient is extracted as follows: each part with the total degree, each part with its domain, and domains with each other in addition to the total degree. That was done by using (30) different external samples than the sample of the study. The correlation coefficients of the parts with the tool were between (0.37-0.74) and with the domain (0.39-0.86) the next table shows that:

No	Correlation coefficient with the domain	Correlation coefficient with the tool	No	Correlation coefficient with the domain	Correlation coefficient with the tool	No	Correlation coefficient with the domain	Correlation coefficient with the tool
1	0.70**	0.56**	11	0.53**	0.72**	21	0.44*	0.50**
2	0.78**	0.50**	12	0.52**	0.65**	22	0.53**	0.52**
3	0.54**	0.40*	13	0.52**	0.62**	23	0.43*	0.47**
4	0.81**	0.70**	14	0.78**	0.58**	24	0.65**	0.48**
5	0.69**	0.60**	15	0.54**	0.60**	25	0.39*	0.50**
6	0.81**	0.61**	16	0.59**	0.52**	26	0.60**	0.50**
7	0.71**	0.50**	17	0.76**	0.37**	27	0.52**	0.52**
8	0.77**	0.74**	18	0.86**	0.48**	28	0.64**	0.50**
9	0.59**	0.47**	19	0.77**	0.45*			
10	0.73**	0.44*	20	0.73**	0.46*			

Table 1: The correlation coefficient between each part and total degree with the domain which belongs to.

*refers to the statistical coefficient at the level of (0.05)

**refers to the statistical coefficient at the level of (0.01)



All correlation coefficients were accepted and had a statistical meaning. In addition to that, the correlation coefficient was extracted between the domain and the total degree and between domains as follows:

Table 2: The correlation coefficients between domains with each other and domains with total de	egree.
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Domains	Self- organizing	Problem- solving	Social and cultural systems	The effects of religion and culture	The scale of efficient confrontation
Self-organizing	1				
Problem-solving	0.473**	1			
Social and cultural systems	0.459*	0.552*	1		
The effects of religion and culture	0.588*	0.462*	0.018	1	
The scale of efficient confrontation	0.755**	0.814**	0.625**	0.566**	1

*refers to the statistical coefficient at the level of (0.05)

**refers to the statistical coefficient at the level of (0.01)

All correlation coefficients were accepted and had a statistical meaning so this means that the construct scale is valid.

4.3. Stability of the Confrontation Efficiency Scale:

To ensure the stability of the scale, a test and a retest were applied on the scale with a two-week space between the two tests. These two tests were applied to an external sample including 30 students, and then Pearson correlation was applied between the two evaluations. Moreover, evaluating the stability coefficient was done by utilizing the internal consistency way through using Cronbach's Alpha equation. The table (3) displays internal consistency from Cronbach's Alpha equation, the stability of the retest for the domain, and the total degree. These values are proper for this study.

Table 3: the internal consistency coefficient from Cranach's Alpha and the stability of the retest for the domain and the total degree.

Domain	Stability of the retest	Internal consistency
Self-organizing	0.87	0.73
Problem-solving	0.86	0.71
Social and cultural systems	0.83	0.79
The effects of religion and culture	0.82	0.80
The scale of efficient confrontation	0.89	0.85

4.4. Construct Validity: A Measure of Academic Optimism

To extract the indicators of construct validity for the measure, the correlation coefficient of each part with the total degree is extracted by using (30) different external samples than the sample of the study. The correlation coefficients of the parts with the total degree for the measure are (0.40-0.86), the next table shows that:

 Table 4: The correlation coefficient between each part and the total degree with the domain it belongs to.

No	Correlation coefficient	No	Correlation coefficient
1	0.69**	11	0.68**
2	0.69**	12	0.79**
3	0.50**	13	0.63**
4	0.71**	14	0.54**
5	0.70**	15	0.85**
6	0.49**	16	0.86**
7	0.81**	17	0.71**
8	0.70**	18	0.40*
9	0.72**	19	0.40*
10	0.53**	20	



*refers to the statistical coefficient at the level of (0.05)

**refers to the statistical coefficient at the level of (0.01)

All correlation coefficients were accepted and had a statistical meaning

4.5. Stability of the Academic Optimistic Scale:

To ensure the stability of the scale, a test and a retest were applied on the scale with a two-week space between the two tests. These two tests were applied to an external sample including 30 students, and then Pearson correlation was applied on the two evaluations which is (0.86). Moreover, evaluating the stability coefficient was done by utilizing the internal consistency way through using Cronbach's Alpha equation which is (0.83). These values were considered proper for this study. Table (5) shows basic information of the sample:

	Category	Repetitive	Percent
Gender	Male	150	42.9
Gender	Female	200	57.1
Specialization	Scientific	109	31.1
Specialization	Literary	241	68.9
	First-year	148	42.3
Education Level	Second year	90	25.7
Education Level	Third year	39	11.1
	Fourth-year	73	20.9
	Excellent	169	48.3
	Very good	136	38.9
Academic achievement	Good	29	8.3
	Pass	16	4.6
	Total	350	100

Table 5: Basic information of the sample.

5 Results and Discussion:

5.1. First Question: What Is The Level of Confrontation Efficiency The University Students Have Under Changing The Educational System to Three Seasons?

To answer this question, the arithmetic mean and standard deviation were calculated according to the level of confrontation efficiency that the university students have under changing the educational system to three seasons, and the following table (6) shows that:

Table 6: The arithmetic means and standard deviations were sorted in descending order upon arithmetic means and were calculated according to the level of confrontation efficiency that the university students have under changing the educational system to three semesters.

Order	No	Domain	Arithmetic mean	S.D	Level
1	3	Social and cultural systems	4.19	0.645	High
2	4	The effects of religion and culture	4.09	0.517	High
3	1	Self-organizing	4.06	0.732	High
4	2	Problem-solving	4.05	0.502	High
		The scale of efficient confrontation	4.10	0.471	High

Table (6) shows that the arithmetic means are between this interval (4.05-4.19), while social and cultural systems take the first rank with the highest arithmetic mean (4.19), problem-solving takes the last order with arithmetic mean (4.05), and the arithmetic means for efficient confrontation under changing the educational system to three semesters is totally (4.10).

5.2. The Second Question: What is The Level of Optimistic Education for University Students under Changing the Educational System to Three Semesters?

To answer this question, the arithmetic mean and standard deviation were calculated according to the level of optimistic education that the university students have under changing the educational system to three semesters, and the following table (7) shows that:



Table 7: The arithmetic means and standard deviations were sorted in descending order upon arithmetic means and
were calculated according to the level of optimistic education that the university students have under changing the
educational system to a three-season

0.1	ЪT	educational system to a three-season	A 1/1	CD	1 1
Ord	No	Parts	Arith	S.D	level
er			metic		
			mean		
1	18	I like goodness for other students	4.68	0.571	high
2	17	I like goodness for myself	4.64	0.707	high
3	9	I believe that relief comes after hardship	4.51	0.771	high
4	16	I hope for academic success in my education career	4.50	0.764	high
5	1	I believe life is purposeful	4.36	0.928	high
6	3	I am confident that I am a successful person	4.35	0.981	high
7	12	I value education and pursue for it	4.32	0.830	high
7	15	I am patient with the obstacles I face in my education	4.32	.812	high
9	4	I accept life with optimism, no matter the circumstances	4.29	0.937	high
9	6	I feel tomorrow will be bright	4.29	1.076	high
11	5	I Plan ahead seriously	4.27	0.975	high
12	8	I think about pleasant things	4.26	0.901	high
13	14	I am excited to continue working and accomplishing it	4.00	1.081	high
14	11	I overcame my problems in my educational career	3.93	0.993	high
15	19	I expect the best in my academic future, especially in the three-semester	2 (0	1 470	
15	19	system	3.60	1.470	medium
16	7	I surrender to sadness	3.39	1.356	medium
17	2	I feel that opportunities are available for my academic advancement through	2 21	1 600	madium
1/	Z	the three-semester system	3.21	1.609	medium
18	10	I seek to study with optimism, especially in light of the three-semester system	3.13	1.513	medium
19	13	I like to study in the three-semester system	2.52	1.508	medium
1	18	Academic optimism scale	4.03	0.661	high

The table (7) shows that the arithmetic means range between (2.52-4.68), where the eighteenth part (I like goodness for other students) takes the first order with arithmetic mean (4.68), and part thirteen (I like to study in the three-semester system) takes the final level with arithmetic mean (2.52). The arithmetic mean of the level of optimistic education for university students under changing the educational system to three semesters reaches the total of (4.03).

5.3. The Third Question: Is There a Correlation Relationship That Is Statistically Significant at the Level ($\alpha \leq 0.05$) Between Optimistic Education and Confrontation Efficiency under Changing the Educational System to Three Semesters?

To answer this question, Pearson correlation was extracted between optimistic education and confrontation efficiency under changing the educational system to three semesters, table (8) shows that:

 Table 8: Pearson correlation to the relationship between optimistic education and confrontation efficiency under changing the educational system to three semesters.

Domain	Academic optimism scale				
	Correlation coefficient (R)	Statistical significance	Samples' No		
Self-organizing	0.606**	0.000	350		
Problem-solving	0.535**	0.000	350		
Social and cultural systems	0.686**	0.000	350		
The effects of religion and culture	0.269	0.000	350		
The scale of efficient confrontation	0.687	0.000	350		

* Statistical coefficient at the level of (0.05)

** Statistical coefficient at the level of (0.01)

Table (8) shows that there is a positive statistical coefficient between Academic optimism and confrontation efficiency under changing the educational system to three semesters.



5.4. Fourth Question: What Are the Advantages and Disadvantages of the Three-Semester Education System from A University Student's Perspective?

An interview was conducted with a sample that includes 50 students (male and female). The interview started by clarifying the meaning of confrontation efficiency and academic optimism for research purposes, and then the students were asked to give their perspective about the advantages and disadvantages of the university education system that was changed from two semesters to three. Advantages and disadvantages were as follows:

Advantages:

- Reviving national domestic tourism due to short semesters.
- Regularity of time within family and school.
- The lightness of the university curriculum.
- The three-semester-system allows students to relax and have many vacations. It is considered better than the two-semester-system which reaches five academic months per semester.

Disadvantages:

- Increased financial expenses in the three semesters, which constitutes a burden on the guardian.
- Apathy of the student and educational staff.
- Dividing vacations into three semesters, especially for employees, makes them lose the pleasure of living with their families for long periods during vacation.

6 Conclusions:

Based on the study conducted on the level of confrontation efficiency among university students under the trimester educational system and the level of optimistic education for students under this system, the following conclusions can be drawn:

The study showed that there is a certain level of efficiency in dealing with challenges among students studying under the trimester educational system. It appears that this system has contributed to the development of student's skills in dealing with frequent changes in the educational environment.

The study also indicated that there is a reasonable level of optimistic education among university students under the same system. Optimistic education can play a significant role in enhancing the desire to learn and developing positive thinking skills among students.

Furthermore, the results revealed a statistically significant positive correlation at the ($\alpha \le 0.05$) level between optimistic education and confrontation efficiency among students in the trimester educational system. This suggests that students with higher levels of optimistic education are better equipped to handle challenges arising from this system.

In summary, the study suggests that optimistic education and academic optimism can be important factors in enhancing students' efficiency in dealing with challenges in the trimester educational system. This underscores the importance of incorporating optimistic education strategies to improve educational quality under this system.

Conflicts of Interest Statement

The authors declare that there is no conflict regarding the publication of this paper.

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References

- Rutter, M. (1987). Psychosocial Resilience and Protective Mechanisms, *American Journal of Orthopsychiatry*, 57(3), 316-331 (1987) DOI: 10.1111/j.1939-0025.1987.tb03541.x
- [2] Seery, M. D., & Quinton, W. J. (2016). Understanding Resilience: From Negative Life Events to Everyday Stressors. Advances in Experimental Social Psychology, (54), 181-245. (2016) <u>Doi.org/10.1016/bs.aesp.2016.02.002</u>



- [3] Sayitch, H. V. (2014). Cities in a Time of Terror: Space, Territory, and Local Resilience: Space. Routledge.Sonn, C. C., & Fisher, A. T. (1998). <u>Doi.org/10.1111/j.1467-9906.2009.00490.x</u>
- [4] Christopher C. Sonn, Adrian T. Fisher (1998). Sense of community: Community resilient responses to oppression and change. Journal of community psychology, 26(5), 457- 472 (1998) <u>Doi.org/10.1002/(SICI)1520-6629(199809)26:5<457::AID-JCOP5>3.0.CO;2-0</u>
- [5] Zubair, A., Kamal, A., & Artemeva, V. (2018). Mindfulness and resilience as predictors of subjective well-being among university students: A cross cultural perspective. *Journal of behavioral sciences*, 28 (2), 1- 19 (2018) http://pu.edu.pk/images/journal/doap/PDF-FILES/01 v28 2 18.pdf
- [6] Buckner, J. C., Mezzacappa, E., & Beardslee, W. R. (2003). Characteristics of resilient youths living in poverty: The role of selfregulatory processes. 15 (1), 139-62. (2003) DOI: 10.1017/s0954579403000087
- [7] Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson resilience scale (CD-RISC). Depression and anxiety, 18 (2), 76-82. (2003) <u>Doi: 10.1002/da.10113.</u>
- [8] Cuomo, C., Sarchiapone, M., Di Giannantonio, M. M., & Roy, A. (2008). Aggression, impulsivity, personality traits, and childhood trauma of prisoners with substance abuse and addiction. *The American journal of drug and alcohol abuse*, 34(3), 339-345 (2008) DOI: 10.1080/00952990802010884
- [9] Gall, T. L., Evans, D. R., & Bellerose, S. (2000). Transition to first-year University: Patterns of change in adjustment across life domains and time. *Journal of social and clinical psychology*, 19(4), 544-567(2000) Doi.org/10.1521/jscp.2000.19.4.544
- [10] Russell, G., & Topham, P. (2012). The impact of social anxiety on student learning and well-being in higher education. *Journal of Mental Health*, 21(4), 375-385 (2012) DOI: 10.3109/09638237.2012.694505
- [11] Hoy, A. W., Hoy, W. K., & Kurz, N. M. (2008). Teacher's academic optimism: The development and test of a new construct. *Teaching and teacher education*, 24(4), 821-835 (2008) <u>Doi.org/10.1016/j.tate.2007.08.004</u>
- [12] Al Nuaimi, H. H. (2021). The predictive ability of academic optimism and the level of ambition in self-regulation among Hashemite University students, *Master's thesis*, Jordan, College of Graduate Studies at the Hashemite University, 1-147.
- [13] Hamdan-Mansour, A. M., Dardas, L. A., & Nawafleh, H. (2012). Psychosocial predictors of anger among university students. *Children and Youth Services Review*, 34(2), 474- 479 (2012) DOI: 10.1016/j.childyouth.2011.12.004
- [14] Hamdan-Mansour, A. M., Halabi, J. O., & Dawani, H. (2009). Depression, hostility, and substance use among university students in Jordan. *Mental Health and Substance Use: Dual Diagnosis*, 2(1), 52-63 (2009) <u>Doi.org/10.1080/17523280802593301</u>
- [15] Liu, J. J., Reed, M., & Girard, T. A. (2017). Advancing resilience: An integrative, multi-system model of resilience. *Personality and Individual Differences*, (111), 111-118 (2017) <u>Doi.org/10.1016/j.paid.2017.02.007</u>
- [16] Hejazieh, E., Lavasani, M. G., & Mazarei, F. (2011). Individual characteristics, identity styles, identity commitment, and teacher's academic optimism. *Procedia-social and Behavioral sciences*, (15), 646-652 (2011) <u>Doi.org/10.1016/j.sbspro.2011.03.157</u>
- [17] Nader, A. M., & Ali, J. M. (2021). Confrontation of Efficiency and Its Relationship to Some Variables among Middle School Students. *Journal of Tikrit University for Humanities*, 28 (8), 386-362 (2021) DOI:10.25130/jtuh.28.8.2021.17
- [18] Hamdan-Mansour, A. M., Azzeghaiby, S. N., Alzoghaibi, I. N., Al Badawi, T. H., Nassar, O. S., & Shaheen, A. M. (2014). Correlates of resilience among university students. *Am J Nurs Res*, 2(4), 74-9. <u>Doi.org/10.1016/S0924-9338(15)31485-1</u>
- [19] Jawad, H. H., & Reda, S. S. (2023). Modelling the causal relationship of Psychological Immunity and Self-differentiation with confrontation efficiency in football players. *Journal of Humanities and Social Sciences Research*, 1(4), 1-21 (2023) <u>Doi.org/10.33687/jhssr.001.0SP.1.000202</u>
- [20] Liu, X., Wang, Q., & Zhou, Z. (2022). The association between mindfulness and resilience among university students: a metaanalysis. Sustainability, 14(16), 2-15 (2022) <u>Doi.org/10.3390/ su14161040</u>
- [21] Suyadi, Dwi Selvi, I., Sibawaihi, Umy Zahroh, & Muassomah. (2023). Children's Future Adversity: Learning Loss Risk during Online Learning in Covid-19 Pandemic. *International Journal of Instruction*, **16 (2)**, 457-478 (2023) <u>DOI:10.29333/iji.2023.16225a</u>
- [22] Rohayati, Syihabuddin, Anshori, D., & Sastromiharjo, A. (2023). Effectiveness of Epistemic Beliefs and Scientific Argument to Improve Learning Process Quality. International Journal of Instruction, 16 (2), 494- 510 (2023) Doi.org/10.29333/iji.2023.16227a
- [23]Staddon, R. V. (2023). Exploring Higher Education Students' Perspectives on Factors Affecting Use, Attitudes and Confidence with Learning Technologies. *International Journal of Instruction*, 16(2), 31-52 (2023) DOI:10.29333/iji.2023.1623a

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