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The effect of self-directed learning in achieving organizational readiness: an exploratory study at the Middle Technical University

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Abstract. The research aims to determine the extent of the impact of self-directed learning in its dimensions (readiness for self-learning, self-control, desire for self-control, practice) in achieving organizational readiness in its dimensions (cognitive dimension, emotional dimension, behavioral dimension) at Central Technical University. The research started from the main question of By revealing the extent of self-directed learning in achieving organizational readiness, the researchers relied in conducting their research on the descriptive analytical approach on a sample of administrative leaders at the Central Technical University, as they relied on a questionnaire form, in order to collect data by distributing (310) forms, (296) were recovered and tested using a set of statistical programs (EXCEL) and (SPSS 23). The research reached a set of conclusions, the most important of which is the existence of an influence relationship between the dimensions of self-directed learning and the dimensions of organizational readiness, in addition to providing recommendations, the most important of which is holding courses and training programs for learners and gifted people to introduce them to self-directed learning within the university.

Keywords. Self-Directed Learning, Organizational Readiness, Central Technical University

Introduction:

Self-directed learning is considered a process in which the learner takes the initiative to identify his educational needs, formulate his learning goals, identify human and material resources, choose and implement appropriate learning strategies, and evaluate learning outcomes, On the other hand, the research dealt with organizational readiness, as it is one of the important and modern concepts that business organizations are interested in and seek to achieve by all possible means. It is the level of availability and readiness of the organization's resources (material and human), The first axis included the research methodology, the second axis included the theoretical aspect, the third axis included the practical aspect, and finally the fourth axis included conclusions and proposals.

First axis - research methodology

First: the research problem

Therefore, the research problem is represented in the main question: What is the extent of the impact of self-directed learning in achieving organizational readiness?

In light of this, a set of sub-questions emerge as follows:

- 1- What is the reality of self-directed learning in the researched organization?
- 2- What is the reality of organizational readiness in the researched organization?
- 3- Is there a statistically significant effect of self-directed learning in its dimensions (readiness for self-learning, self-control, desire for self-control, practice and planning) in achieving organizational readiness in the field under study?

Second: The importance of research

1- The results of this research may contribute to understanding the reality of self-directed learning in the researched field, as well as understanding the reality of organizational readiness and the relationship that links them.

2- Determine the nature of the effect between self-directed learning and organizational readiness and the extent to which the researched organization benefits from the research results for the purpose of developing its strategies and future plans.

3- The scientific importance comes from its selection of the research community whose members the research was conducted, represented by the Central Technical University, through the effect of self-directed learning in achieving organizational readiness.

Third: Research objectives

The main objective of the research is to identify the extent of the impact of the dimensions of self-directed learning and its role in achieving organizational readiness at the Central Technical University.

In light of this, the sub-objectives of the research are:

1- Identifying the obstacles and problems that prevent self-directed learning from fulfilling its role in achieving organizational readiness.

2- Identify the dimensions of self-directed learning, as well as determine which of these dimensions is most distinctive in achieving organizational readiness.

3- Identify the influence relationships between research variables.

Fourth:- Research hypotheses

There is a significant relationship of influence between self-directed learning and the dimensions of organizational readiness at the macro level, and several hypotheses emerge, including:

A- There is a significant relationship of influence between (readiness for self-learning) and the dimensions of organizational readiness combined.

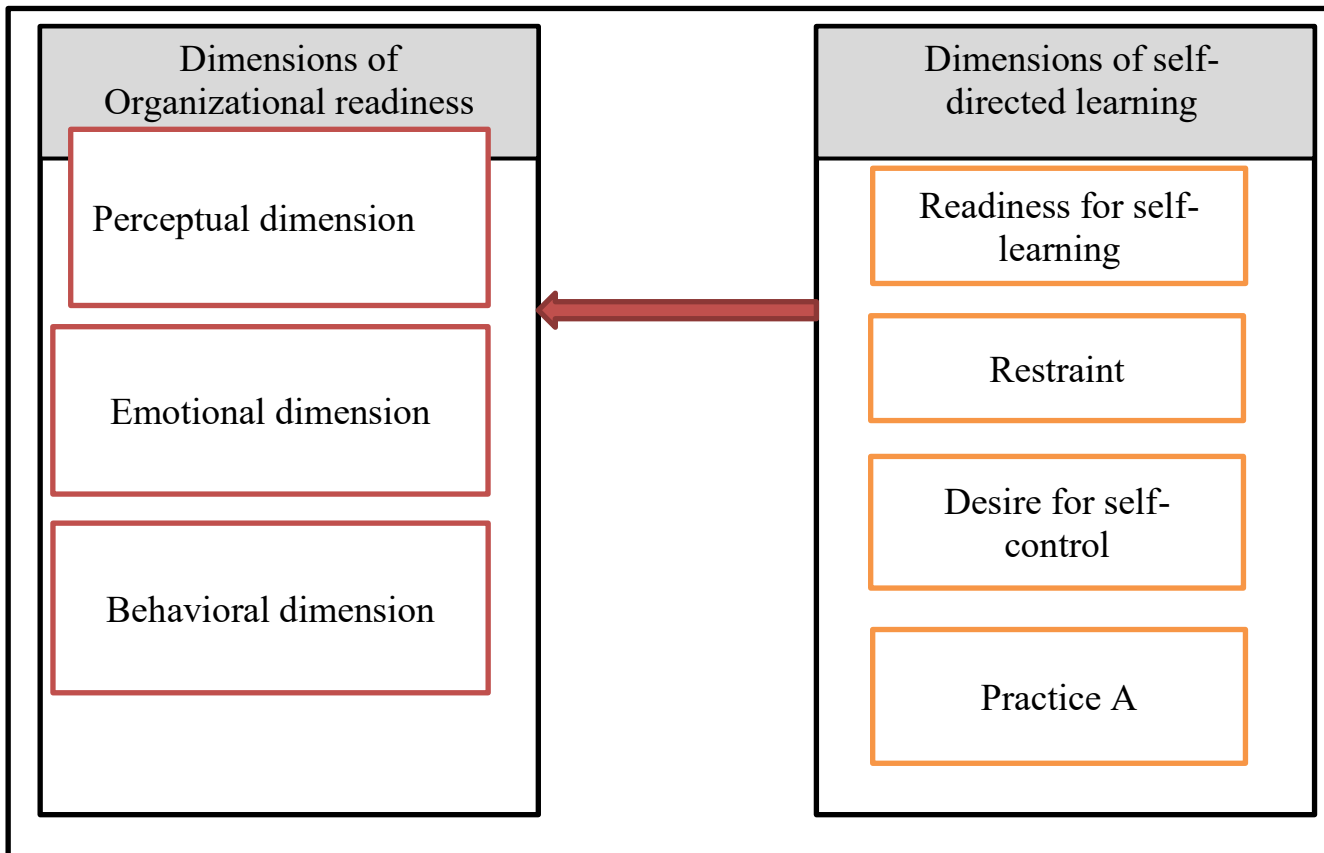
B- There is a relationship and a significant effect between (self-control) and the dimensions of organizational readiness.

T- There is a significant relationship of influence between (the desire for self-control) and the dimensions of organizational readiness

D- There is a significant relationship of influence between (practice) and the dimensions of organizational readiness.

Fifth: Hypothetic research scheme

The hypothetical diagram was built based on the problem of the research variables, its variables, their sub-dimensions, and the work environment in which the research was applied, as shown in Figure No. (1)



Source: Prepared by the researcher

Sixth:- Research limitations

1- Spatial boundaries: The research was applied at the Central Technical University, as it included a segment of administrative leaders

2-Time limits: The time period during which the research was conducted is from 5/7/2023 until 9/16/2023

Seventh: Method and tools for collecting data

In collecting data, the researcher relies on a questionnaire prepared for this purpose and submitted to a committee of arbitrators to evaluate it in terms of the research topic and content. The questionnaire consisted of three parts, the first part includes personal information, while the second part includes self-directed learning, and the third part includes organizational readiness. Using a five-point Likert scale (1-5) (strongly agree - agree - neutral - disagree - strongly disagree), and for the purpose of describing and diagnosing the research variables and testing its hypotheses, the statistical analysis program (Spss 23) was used using a group Among the statistical tools are (frequency distribution - percentage - arithmetic mean - standard deviation - response rate - coefficient of variation.

The second axis - the theoretical aspect

First: Self-directed learning

_Self-guided learning1

There are many definitions of self-directed learning by writers and researchers, and the following are some of these definitions.

s)Researcher, year: page(Definitions
1-)Al-Otaibi, 2015: 255(Purposeful mental activities, accompanied by a number of supportive behavioral activities that include identifying and searching for information and knowledge, all within the framework of the learner’s self-responsibility for making decisions related to his learning.
2	Sirakaya & Ozdemir,2018:76-77)	It is the process in which individuals set their own learning goals, make their own decisions to acquire knowledge, actively use information acquisition methods, and achieve and evaluate learning on their own
3)Bosch et al,2019:1(The process by which an individual, by himself or with the help of others, identifies his learning needs, sets learning goals, identifies the resources he needs to achieve learning, chooses and adopts appropriate learning strategies, and evaluates the learning outcomes he has obtained.

Source: A table prepared by the researcher based on the above sources

From the above, the researcher believes that self-directed learning is the process that the individual undertakes by himself or with the help of others in determining his educational needs to acquire information, attitudes, and skills so that the focus of attention shifts from the teacher to the learner.

2_The importance of self-directed learning

The importance of self-directed learning is as follows (Aisha and Maryam, 2021: 20), (Hassoon, 2019:660) :-

_It increases the individual's efficiency and support in confronting problems and providing appropriate solutions to them.

_It motivates the individual to take responsibility and abandon dependence on others, as well as to face the future and its challenges.

_It provides the learner with accurate results about the level of future learning.

_It increases the learner's positivity and makes him reject negative methods.

_The individual integrates with others in a way that strengthens his relationships with others.

_It increases the learner's experience and makes him more able to adapt to changes and more able to plan for the future.

3_Dimensions of self-directed learning

A- Readiness for self-learning

The process in which an individual possesses the abilities, attitudes, and personal characteristics necessary for learning. This concept includes a number of basic assumptions, including that adults tend by nature to practice self-directed learning. Readiness for this type of learning represents continuous learning, and individuals have to a certain degree the competencies required by readiness for self-directed learning. It can be developed and improved, and the best way to learn and work independently in a specific setting or context can be generalized to other contexts and situations (Talak and Ibrahim, 2021: 4) Readiness for self-learning in its broadest sense refers to the self-initiation by individuals, with or without assistance from others, to diagnose learning requirements, formulate educational objectives, identify human and material resources necessary for learning, select and implement appropriate learning strategies, and evaluate learning outcomes (Ashwin Paul, 2010: 50).

B_ Restraint:-Self-control refers to the ability to change oneself and adapt in order to form a better compatibility between itself and the external environment, to overcome or change internal responses, to stop, refrain from and get rid of unwanted behavioral tendencies. According to this perspective, self-control is supposed to achieve positive results in life And individuals who enjoy it to a high degree in various fields (Tangney et al, 2004:274-275).

C_ The desire for self-control

It is considered one of the most important matters in an individual’s life, and its negative and positive impact is reflected in the various personal aspects of the individual and his behavior. Acquiring self-control methods requires teaching the individual some general rules that can be applied in several behavioral situations, and self-control is one of the behavioral procedural methods that is considered economical. It saves time and effort for the individual, because the individual himself is responsible for applying such procedures to control his behaviors, and because this procedure results from the individual’s personal desire to monitor himself and control his hidden behaviors, and the concept of self-control measures the individual differences between individuals in the decision-making process and in how Behavior in social situations by each individual (Ahmed, 2018: 768-769).

D_ A Practice

A human activity that seeks to achieve the goals of the organization for which it was established by applying elements of the administrative process such as decision-making, planning, organization, coordination, direction and control, in order to obtain the best results at the lowest possible cost. It is an activity that depends on thinking and mental work related to the administrative personality and behavioral aspects. And trends in stimulating collective efforts towards achieving a common goal using available resources in accordance with scientific principles and concepts (Mubarak, 2022: 1242)

Second: Organizational readiness

1_The concept of organizational readiness

There are many definitions of organizational readiness by writers and researchers, and the following are some of these definitions:-

التعريفات	(الباحث، السنة: الصفحة)	ت
(Thompson & Masuelli; 2017:4)	It depends on the accuracy of planning, the competencies of employees, the adequacy of training, the presence of fixed main support processes, and the	1

	quality of services and systems within the organization.	
(Al-Abadi and Al-Amidi, 2018: 450)	It represents the organization's basic external orientation towards the world, and readiness can exist at the individual, unit, or department level, or at the organizational level. It is evaluated and studied at any level of analysis.	2
)Albers et al.;2020:101(A critical introduction to successful implementation, it is not a one-time strategy but an ongoing process and plays a crucial and important role in determining competitiveness.	3

Source: A table prepared by the researcher based on the above sources.

From the above, the researcher believes that organizational readiness represents the basic external orientation of the organization. It is not a one-time strategy, but rather an ongoing process and plays a decisive and important role in determining competitiveness.

2_ The importance of Organizational readiness

Readiness has been found to influence the success of strategic changes within organizations. The broad and deliberate choice from both internal and external perspectives has been found to be linked together. Therefore, the balance of communication between commitment and flexibility has been noted for its role in achieving organizational readiness, and the determinants of strategic changes are primarily implemented by the senior manager. Requests for readiness are usually sent to the middle layer of managers, so commitment and flexibility must be envisioned among all dimensions in order to reach the maximum extent to benefit from strategic changes (Persson, 2014:5).

3_Dimensions of Organizational readiness

A_ Perceptual dimension

Smollan (2010:144) referred to perception as the thinking process in which the individual has an initial awareness of stimuli in how to act towards them. Perception is also described as relating to thoughts and understanding, and it relates to how employees evaluate, perceive or understand change so that employees can be aware Providing change initiatives through a variety of tools and methods.

B_ The emotional dimension

(Rafferty et al, 2013:625) shows that emotions consist of separate and distinct feelings such as love, hate, joy, sadness, happiness, annoyance, calm, excitement, boredom, relaxation, anger, acceptance, disgust, and others(Carr 2001:426) pointed out that the role of emotions in organizations has been ignored in many studies that have emphasized the cognitive and perceptual field in readiness for responses to change.

C_ The behavioral dimension

(Frankly, Johns & Saks 2014:40) shows that behavior refers to the positions of individuals and groups in institutions, and that discipline in behavior occurs through the systematic study of these positions and provides a point of view on effective management and change. It also studies how institutions can be structured in the way they are It is more ready,It is noteworthy that those who study organizational behavior are interested in the attitudes and

level of individuals' satisfaction with their jobs, and the extent of commitment that leads to achieving the organization's goals, in addition to other behaviors such as cooperation and conflict, innovation or resignation, or ethical gaps, and all important areas of study in the field of organizational behavior (Al-Abadi and Al-Ameedi, 2018: 454).

The third axis: the practical aspect

First: Description and diagnosis

A- Describing and diagnosing self-directed learning

Table (3) shows the frequency distributions, percentages, arithmetic means, and standard deviations for the dimensions of self-directed learning.

Variables	Variable symbol	Coefficient of variation %	Response rate %	Standard deviation	Average arithmetic	Response scale									
						I disagree strongly		I don't agree		neutral		Agreed		Strongly agree	
						%	عدد	%	عدد	%	عدد	%	عدد	%	عدد
Readiness for self-learning	Q1	26.09	82	1.07	4.10	4.7	14	5.0	15	10.1	30	35.6	106	44.6	133
	Q2	31.25	77.2	1.20	3.84	7.0	21	9.1	27	11.7	35	36.6	109	35.6	106
	Q3	29.79	77.2	1.15	3.86	5.4	16	9.1	27	15.1	45	34.6	103	35.9	107
	Q4	28.70	80.4	1.15	4.02	5.0	15	7.7	23	11.7	35	30.5	91	45.0	134
Over all index		28.57	79.8	1.14.	3.99										
Restraint	Q1	29.63	77.6	1.15	3.88	4.7	14	9.7	29	15.4	46	32.6	97	37.6	112
	Q2	31.46	75	1.18	3.75	4.0	12	14.4	43	17.1	51	30.5	91	33.9	101
	Q3	32.53	75	1.22	3.75	6.0	18	12.8	38	15.4	46	31.2	93	34.6	103
	Q4	27.86	80.4	1.12	4.02	5.0	15	7.7	23	8.4	25	37.2	111	41.6	124
		30.13	77	1.16	3.85										
The desire for self-control	Q1	29.12	77.6	1.13	3.88	4.7	14	9.1	27	15.4	46	34.2	102	36.6	109
	Q2	27.40	81	1.11	4.05	3.0	9	9.1	27	13.8	41	27.9	83	46.3	138
	Q3	30.54	76.6	1.17	3.83	5.0	15	10.7	32	16.4	49	31.2	93	36.6	109

	Q4	28.76	75.9	1.09	3.79	3.0	9	11.1	33	21.1	63	33.2	99	31.5	94
		28.86	77.6	1.12	3.88										
APractice	Q1	29.05	76.4	1.11	3.82	3.4	10	11.1	33	18.8	56	32.9	98	33.9	101
	Q2	23.70	81	0.96	4.05	3.0	9	4.4	13	13.1	39	43.3	129	36.2	108
	Q3	31.71	78.2	1.24	3.91	6.7	20	9.7	29	13.1	39	26.5	79	44.0	131
	Q4	26.81	79.8	1.07	3.99	2.0	6	9.7	29	16.1	48	30.9	92	41.3	123
		27.66	78.8	1.09	3.94										

Source: Prepared by the researcher based on the outputs of the SPSS program.

It is clear from the data in Table (3) that:

_ The data in Table (3) showed that there is an awareness by the sample members about the dimension of readiness for self-learning, with an arithmetic mean of (3.99), a standard deviation (1.14), a response rate (79.8), and a coefficient of variation (28.57), which shows that the variable (Q1) which... It represents that there are multiple methods through which learning can occur) and it represents the greatest agreement among the individual respondents.

_ The data in Table (3) showed that there is an awareness by the sample members about the self-control dimension with an arithmetic mean (3.85), a standard deviation (1.16), a response rate (77), and a coefficient of variation (30.13), as it shows the variable (Q8), which indicates (I try to control... myself when facing frustrating situations), which represents the greatest agreement among the individual respondents.

_ The data in Table (3) showed that there is an awareness by the sample members about the dimension of desire for self-control with a mean (3.88), a standard deviation (1.12), a response rate (77.6) and a coefficient of variation (28.86), as it shows the variable (Q10), which indicates (I need a strong sense of control over myself so that I become less prone to anger and depression) and this represents the greatest agreement among the individual respondents.

_ The data in Table (3) showed that there is an awareness by the sample members about the practice dimension with an arithmetic mean (3.94), a standard deviation (1.09), a response rate (78.8), and a coefficient of variation (27.66), as it shows the variable (Q14) which indicates (the development of capabilities depends on Members and their capabilities for current continuing education programs) which represents the greatest agreement among the individual respondents.

B- Describe and diagnose the dimensions of organizational readiness

Table (4) shows the frequency distributions, percentages, means, arithmetic and standard deviations for the dimensions of organizational readiness

Variables	Variable symbol	معامل الاختلاف %	نسبة الاستجابة %	الانحراف المعياري	الوسط الحسابي	مقياس الاستجابة									
						لا اتفق بشدة		لا اتفق		متأكد غير		اتفق		اتفق بشدة	
						%	عدد	%	عدد	%	عدد	%	عدد	%	عدد
The cognitive dimension	Q17	23.71	81.8	.970	4.09	1.7	5	5.7	17	16.1	48	34.2	102	42.3	126
	Q18	29.15	78.2	1.14	3.91	4.7	14	8.7	26	15.4	46	32.2	96	38.9	116
	Q19	28.35	79	1.12	3.95	4.0	12	9.4	28	13.1	39	33.6	100	39.9	119
	Q20	28.57	79.8	1.14	3.99	5.0	15	7.0	21	14.4	43	30.5	91	43.0	128
	Q21	28.86	79	1.14	3.95	3.7	11	10.7	32	13.4	40	30.9	92	41.3	123
	Q22	27.40	81	1.11	4.05	3.4	10	8.7	26	12.4	37	29.9	89	45.6	136
Overall index		25.81	79.8	1.03	3.99										
The emotional dimension	Q23	31	77.4	1.20	3.87	6.0	18	10.1	30	13.1	39	31.5	94	39.3	117
	Q24	29.29	79.2	1.16	3.96	5.7	17	7.0	21	13.8	41	32.2	96	41.3	123
	Q25	28.64	78.2	1.12	3.91	3.4	10	10.1	30	16.8	50	30.9	92	38.9	116
	Q26	29.74	78	1.16	3.90	4.4	13	10.7	32	14.4	43	30.9	92	39.6	118
		29.66	78.2	1.16	3.91										
The behavioral dimension	Q27	29.42	80.2	1.18	4.01	6.0	18	7.0	21	12.1	36	29.2	87	45.6	136
	Q28	28.68	78.8	1.13	3.94	4.4	13	8.7	26	14.8	44	31.9	95	40.3	120
	Q29	27.02	79.2	1.07	3.96	3.0	9	8.4	25	16.1	48	33.6	100	38.9	116
	Q30	26.35	81.2	1.07	4.06	6.0	18	2.7	8	10.4	31	40.6	121	40.3	120
		27.82	79.8	1.11	3.99										

Source: Prepared by the researcher based on the outputs of the (SPSS) program.

It is clear from the data in Table (4) that:

_ The data in Table (4) showed that there is an awareness by the sample members about the cognitive dimension with an arithmetic mean (3.99), a standard deviation (1.03), a response rate (79.8) and a coefficient of variation (25.81), as it shows the variable (Q18) which indicates (I believe that change Continuing is a positive process at the university), which represents the greatest agreement among the individual respondents.

_The data in Table (4) showed that there is awareness by the sample members regarding the emotional dimension with a mean (3.91), standard deviation (1.16), response rate (78.2), and coefficient of variation (29.66), as it shows the variable (Q24), which indicates (problems are dealt with constant attention and follow-up) it represents the greatest agreement among the individual respondents.

_ The data in Table (4) showed that there is an awareness by the sample members about the behavioral dimension with an arithmetic mean (3.99), a standard deviation (1.11), a response rate (79.8), and a coefficient of variation (27.82), as it shows the variable (Q30), which indicates (requires the presence of a rule Scientific knowledge that qualifies associates to keep pace.

_ The changes that occur in it represent the greatest agreement among the affiliates.

Second: Testing hypotheses

After testing the description and diagnosis of the research variables in the first axis, this axis will test the research hypotheses as follows:

_Testing the first main hypothesis and the sub-hypotheses emerging from it.

Table (5): Testing the first main hypothesis and the sub-hypotheses emerging from it

Dependent variable Analysis data Independent variable	Organizational readiness						
	T		B	B0	F		R ²
	schedule d	Calculate d			schedule d	Calculate d	
Self-guided learning	1.645	23.595**	0.725	1.136	3.999	556.713**	0.65
Readiness for self-learning	1.645	15.504**	0.502	1.985	3.999	240.363**	0.44
self-control	1.645	14.938	0.487	2.098	3.999	223.153**	0.43
Desire to control	1.645	17.813	0.559	1.798	3.999	317.302**	0.51
APractice	1.645	18.638	0.559	1.608	3.999	347.373	0.54

Calculated n=80 P≤0.05

Source: Prepared by the researcher based on the outputs of the SPSS program

The data in table (5) indicate that there is a significant effect of the dimensions of self-directed learning on organizational readiness, and this effect is explained by the value (F) (556.713), which is greater than the table value (3.999). The value of the coefficient of determination (R²) was 0.65, which explains it. Dimensions of self-directed learning. This is

reinforced by the value of the regression coefficient (B1), which reached (0.725), while the calculated value of (T) reached (23.595), which is greater than the tabulated value of (T) of (1.645) at a significance level of 0.05). (

Table (5) also shows that there is a significant effect of the dimensions of self-directed learning represented by (readiness for self-learning, self-control, desire for self-control, practice) on organizational readiness, as the value of (F) reached (240.363) for readiness for self-learning and (223.153). (for self-control, (317.302) for the desire to control oneself, and (347.373) for practice, which is greater than the tabulated (F) value of (3.999) at a significance level of (0.05), and the value of the coefficient of determination for the model in general was (0.44, 0.43, 0.51, 0.54), and this is reinforced by the value of the regression coefficient (B1), which reached (0.502, 0.487, 0.559, 0.559) for all dimensions, while the calculated value of (T) reached (15.504, 14.938, 17.813, 18.638), which is greater than the tabulated value of (T). The amount of (1.645) at a significance level of (0.05) indicates acceptance of the sub-hypothesis emanating from the main hypothesis at the level of the Central Technical University.

Fourth axis: conclusions and proposals

First: Conclusions:

1_ Self-directed learning provides the diverse learning options and resources that each learner needs in order to invest his energies according to his abilities, aptitudes, and desires.

2_ There is diversity in the answers of the individuals surveyed regarding both the dimensions of self-directed learning and organizational readiness at the university investigated.

3_ The results of the statistical analysis showed that there is an influence relationship between the dimensions of self-directed learning and the dimensions of organizational readiness. This indicates that increasing interest in self-directed learning will inevitably lead to enhancing organizational readiness.

4_ The results indicate that the more a university pays attention to self-directed learning, the more organizational readiness it will lead to.

5- The researcher believes that this research is a modest addition to the literature in this field, and through her review of previous research, there is a lack of field research that dealt with self-directed learning and organizational readiness.

Second: Proposals

1_ Emphasis on developing the concept of self-directed learning from the early educational stages in order to achieve the maximum benefit from using self-directed learning strategies within the university.

2_ Holding training courses and programs for learners and gifted people to introduce them to self-directed learning within the university.

3_ It is necessary to invest in the relationship between self-directed learning and organizational readiness within the university.

4_ Enhancing organizational readiness as an important variable with a significant impact on facilitating the process of making changes by the organization.

5_ Creating the classroom environment in a way that enhances and develops self-directed learning skills to enhance learning within the university.

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