RESEARCH ARTICLE

THE PREDICTION OF LEARNING ACHIEVEMENTS ASSESSED IN THE MANAGEMENT OF DEPARTMENT REGULATION, LEARNING CLIMATE AND INTERPERSONAL COMMUNICATION

*Beatrix Jetje Podung

State University Manado

ARTICLE INFO	ABSTRACT
	The aims of the study: This study aims to know whether or not the influence between the Management Studies Program (X1), a climate of learning (X2) and Interpersonal Communication (X3) to Science Faculty-student learning achievements Physical Manado State University (X4). The implementation of the research is divided into two stages, namely: the first stage of the test instrument, the second phase of the actual research. **Method:** The research method used in this research is the survey methods and techniques non-test. **Results:** Based on the analysis of the data There is a positive influence between the management studies program (X1) to learning achievement (X4) on Science Faculty-student Physical State University Manado. There is a positive influence directly between the management studies program (X1) to interpersonal communication (X3) on Science Faculty-student physical State University Manado. There is a positive influence directly on the climate of learning (X2) to learning achievement (X4) on Science Faculty-student physical State University Manado. There is a positive influence on climate change learn (X2) to interpersonal communication (X3) on Science Faculty-student Physical State University Manado. There is a positive influence directly on interpersonal communication (X3) to learning achievement (X4) on Science Faculty-student physical State University Manado. Thus the learning achievements can be enhanced through the improvement of student perception about the study program management, climate change learning, interpersonal communication.

INTRODUCTION

The demands and the Challenges faced of Physical Science Faculty during the periods timehas beenincreasing. The demands and challenges of the changes that are of a global, regional national and local communities as a result of the progress and development of the technology and Physical Science Faculty required being able to respond to the demands and challenges so that its existence is able to face the globalization era in the future. existing free competition policy in the era of globalization the future changes will occur the order of economic value, the social tendency toward decentralizationswatanisasi, more and more information and communication technology development, the more the opening of many alternative in his career, increasingly strong hope democratic across sectors of life and weakening authoritarian patterns. All the demands and challenges that must be faced and affect the Science Faculty Physical. The impact of the changes will cause many changes in the joints and education Physical paradigm. The science of physical with medan study includes the movement of man, covers (1) play, (2) sports, (3) physical education and health, (4) recreation, (5) dance.

Corresponding author: **Beatrix Jetje Podung,**
State University Manado.

Forms of physical activity demonstrates the professional services that can be made for the development of science physical. Because the forms of physical activitieswere part of the needs of life there and required by the community. For the needs of the required professionals are reliable. The development and the balance are not removed from the role and function of science Physical as a bridge connecting to fulfill the service of the community demands. One of the important things is the problem of student learning achievements, especially in Science Faculty Physical State University Manado. Bucher (2013), proposed management definition

"*Management is guiding human and physical resources into dynamic, hard-hitting organizational screened unit attains its objectives to the satisfaction of an served, and with a high degree of morale and sense of attainment on the part of an served*".

The functions of management are *planning*, *budgeting*, *staffing*, *organizing*, *actuating*, *supervising*, *controlling, evaluating and communicating*". This is similar to the opinion of the Nawawi (2007) stated that "management functions consists of: (a) planning (b) organi*zing* (c) Instruction, and (d) control*ling*."

The success of the organization in achieving goals that have been assigned, strategically determined by internal quality managers reflected in creating a climate conducive learning with still appreciate each staff potential involved. That is not less important is the implementation of the award system and balanced punishment is applied to all staff without removing the basis of openness (*open value system*) in decision-making and policy. Learning achievement is the result of the total value of the students in each semester after taking courses in the corresponding semester. Many factors that appear in the field about the issue of the student learning achievements these factors closely related to the process of a lecture that occurred at the Faculty Of Science State University Keolahraan Manado. These factors can come from within the student or outside factors related to the academic activities of students. Kingsley (2011)divided three kinds of learning achievements, namely: (a). skills and habits, (b) knowledge and understanding, (c) attitudes and ideals. Each type of learning results can be charged with ingredients that have been specified in the curriculum. While Gagne divided five categories learning achievements, namely (a) verbal information, (b) intellectual skills, (c) cognitive strategy, (d) attitudes, and (e) psychomotor skills.

Study program management factors related closely with the problem of learning achievements, management studies program is the condition of the management of the study program started from the planning, organizinguntil it reboots and evaluation which is run by the resources to manage the program study good implementation students study on the corresponding study program. From the planning process, Study Program on duty planning implementation and development of the learning program in the form of making the scheduled lecture, Making Units Of The Event lecture, Test among the First Semester and the end of the First Semester examination and final examination and improvement of Study qualification and competence of the lecturer in the form of further study and training. From the process of organizing a study program on duty set division of labor lecturer teaching staff in the form of the assignment Lecturer Academic Advisors, Grouping university lecturers based on the skills and competencies. In the process of the implementation of the program of study set up the implementation of the lecture in the form of infrastructure and setting the lecture. In the process of supervision, Study Program assigned to oversee the implementation of the lecture in the form of the monitoring of the presence of the lecturers and students and the monitoring of the preparation of the teaching lecturers.

Learning climate closely related also to student learning achievements, because with climate change conducive learning will enable students to learn very seriously and quiet and comfortable running the study at the Faculty Of Science State University Physical Manado. Climate Change a good learning is supported by the availability of adequate facilities and infrastructure for the learning process. Besides the academic ability and instructional capabilities lecturers to the use of learning media it. In addition, a good learning climate supported also by the fulfillment of the needs of the lecture and student living costs. Another factor is the establishment of a good interpersonal communication among students and with students and lecturers, all it broadcasts has a very important role also for the success of students in the pursuit of learning

achievements. Good interpersonal communication is supported by the availability of media distribution of communication between the personal form of the discussion forum, freedom to transmit the opinion, the freedom to ask questions and formal forum for distribution of opinion both inside and outside the classroom. In addition to the communication skills lecturer and students in accordance with the goals in the teaching and learning process. Miller (Abizar, 2003) proposed that there are four characteristics of communication: the number of effective communicators, how remote physical, number of senses used and reinvigorate feedback. Furthermore advanced, entire dimensions are interdependent and among the four, first (number) communicator is the most important. If the amount of the following communicator distance in between them vary and this was followed by the difference in both the message and cognitive skills needed to fully integrate success. Swanson (Abizar, 2009) presents if effective communicators switch from the interaction is interpersonal to the direction of the communication is, heterogeneous, and less immediately such as mass communication, so demand will be more to prepare the message first and see the audience in the nature of generalizations.

Based on these issues is the formulation of the problem in this research are: 1) whether study program management directly affects student learning achievements Physical Science Faculty University of Manado?; 2) whether study program management directly affects interpersonal Communication Science Faculty-student Physical State University Manado?; 3) whether climate change learn directly affects student learning achievements the Physical Science Faculty University of Manado? ; 4) whether climate change learn directly affects against interpersonal Communication Science Faculty-student Physical State University Manado? ; 5) whether interpersonal communication directly affects student learning achievements the Physical Science Faculty University of Manado?

METHODS

Research Design

The research method used in this research is the survey methods and techniques none test, while analysis techniques using path analysis approach (*path analysis*) - research that will examine or analyze the relationship between the variables research, and measure the influence directly and indirectly between one variable to other variables.

The pattern of ties between research variables can be seen in the picture below:
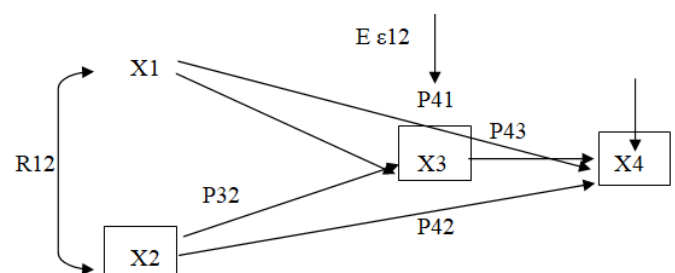
Description

X1 : Study Program Management
X2 : Climate Change Learn
X3 : Interpersonal Communication
X4 : Learning Achievements
R12 : Correlation Coefficient
Ɛ Ɛ1,2 : Error

$\rho_{31, 32, 43, 41, 42}$: Structural Equation Coefficient ρρρρ

The population and Samples

The population

The population in this research is the entire Faculty-student of Science State University Physical Manado is recorded on the Academic Year 2010/2011 numbered 130.

Samples

Now the samples in this research as much as 50 students from 2 study program, namely study program Physical Education Health and recreation and Education study program training, taken at random or random sampling based on percentages from a population of over 100 taken at least 50%.

The technique of Data Collection

The technique of data collection is required in order to carry out a research. The data to be collected can be the numbers written information, oral information and various facts related to the focus of research that examined. With regard to understanding the technique of data collection and extant data that will be collected and data, collection technique is an important step in research so that in this research used the technique of not test with the technique of the spread of questionnaires.

Research instrument

Learning Achievement variable

The grille Instrument

From what is formulated in the definition of the conceptual and operational definitions that have been described above, variable indicator study program management is developed in the details of the instrument as much as 31 items such as in table 1 on the following page:

Table 1. The grille Instrument Study Program Management

The variables	The indicator	The number of items
Study Program Management	Planning	11
	The organization	11
	Directing	11
	Controlling	11
	Evaluation	10
		54

Learning Climate variable

The Instrument

On the definition of the conceptual and operational definitions that have been described above, learning climate variable indicator is developed in the details of the instrument as in the following Table 2.

Table 2. The grilles Climate instrument Learn

The variables	The indicator	No. The Question
Learning climate (X2)	Job description is good and good rules	3,5,6
	The responsibility for the work and the responsibility of the individual in accordance with the task	2,4,8,23,24
	A friendly atmosphere, support from a friend or lecturers.	1,17,21,25,26,27,28,
	Conflict resolution fast and good	13,14,16,9
	Risk Prediction	19,20,15,29
	The understanding of the mission of the Faculty of and loyalty.	18,22,15
	The system is given by the reward and sanctions that apply in the study program.	10,11,7,30
	The number of questions	30

Interpersonal Communication

The Instrument

From what is formulated in the definition of the conceptual and operational definitions that have been described above, variable indicator interpersonal communication is developed in the details of the instrument as much as 42 items such as in Table 3 below:

Table 3. The grilles Interpersonal Communication Instrument

The variables	The indicator	The number of items
	- The instructions tasks	13
	- The rationale	
	- The ideology	
	- Information	
	- Customer Feedback	
	- Convey ideas	
	- The attitude	13
Interpersonal Communication	- The feeling	
	- Correct answer	
	- Wisdom	
	-Entrusting the problem	
	- Coordination tasks	
	-Information and plan activities	16
	-Troubleshooting	
	-Gain	
	-Difference of opinion	
	-Grow support	
	The number of questions	42

Hypothesis Statistics

The hypothesis that tested the following statistics

1. H0 : β41 ≤ 0
 H1 : β41 >?0
2. H0 : β local churchmen ≤ 0
 H1 : β local churchmen >?0
3. H0 : β42 ≤ 0
 H1 : β42 >?0
4. H0 : β32 ≤ 0
 H1 : β32 >?0
5. H0 : β43 ≤ 0
 H1 : β43 >?0

Description:

B41 = The Influence of Program Management variable studies toward learning achievements.

B local churchmen = The Influence of variables to Study Program Management Interpersonal Communication.

B42 = Influence Climate variable Learning against the learning achievements.

B32 = The Influence of learning Climate variable Interpersonal communication.

B43 = Influence Interpersonal Communication variables against the Achievements Learn.

RESULTS AND DISCUSSION

Description of the Data Research Results

Description of the data from the results of research aims to provide a general idea about the spread of the distribution of data, both in the form of the layout size frequency distribution. Prices are presented after the processed from the raw data using the methods of descriptive statistics, namely the value of the maximum value of the minimum amount of the average of the deviation and variance.

A summary of the results of the calculation of the statistics are as follows:

Table 4. Summary of Research Results

The statistics	The variables			
	X1	X2	X3	X4
The number of samples (n)	50	50	50	50
Maximum value	151	139	204	3.85
Minimum Value	105	92	168	Against 2.46
The amount	46	47	36	1.39
Average (X̄)	132,9	116.70	185;52	3.17
Standard deviation (s)	10.26	10,15	9.97	0.31
Variants (S2)	105,36	103,07	99,44	0.10

Description:
X1: Study Program Management
X2: Climate Change Learn
X3: Interpersonal Communication
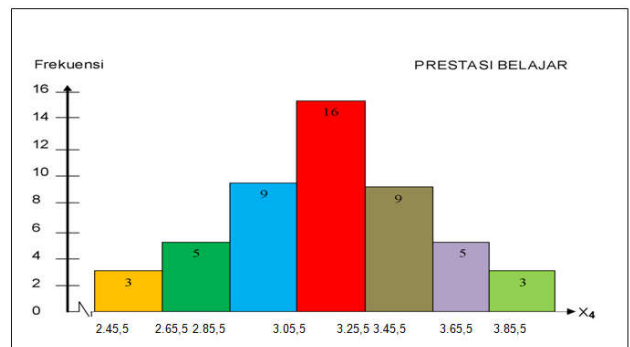X4: Learning Achievements

Description of the data presented is a description of the data variables research examined consists of four variables which consists of three *exogenous variables* (free) and one *endogenous variable* (attached). the *exogenous variable* consists of the Management Study Program, Learning Climate, and Interpersonal Communication. the *endogenous variable* consists of student learning achievements the Physical Science Faculty University of Manado. The presentation of the description of the data presented each of the variables in a row (data can be seen in Appendix 2) start from the variables bound as follows:

Students learning achievements in the Physical Faculty

Based on the research data obtained student learning for Percentage lowest Achievement Index against 2.46, the highest Achievement Index 3.85, with Achievements1,39 Index range from the results of the analysis of the data obtained an average of 3.17; deviation 0.31; and variant 0.10. With many classes 7 and the length of the class 0.20, made the distribution of the frequency of the variable data such as student learning achievements Table 5.

Table 5. The list of frequency of student learning achievements Physical Science Faculty University of Manado

The number	The Class The Interval	The frequency		
		Absolut	Relatively (%)	The cumulative (%)
1	Against 2.46 - 2.65	3	6	6
2	2.66 - 2.85	5	10	16
3	2.86 - 3.05	9	18	34
4	3,06 - 3.25	16	32	66
5	3.26, - surging 3.45 had	9	18	84
6	4,46 - 3.65	5	10	94
7	3.66 - 3.85	3	6	100
The number of		50	100	

Picture 3. The variable Data Histogram Student learning Achievements Physical Science Faculty University of Manado

The Management Studies Program

Data regarding the management of the study program is obtained through the questionnaires shows a range of empiric score between 105 to 151, with score extensions theoretic 31 - 155. The results of the calculation show the average price of 132,9; deviation 10.26; and Variant 105,36. With the number of the interval class 7 and class 7 get the length frequency distribution that can be seen in table 6 and histogram such as picture 4.

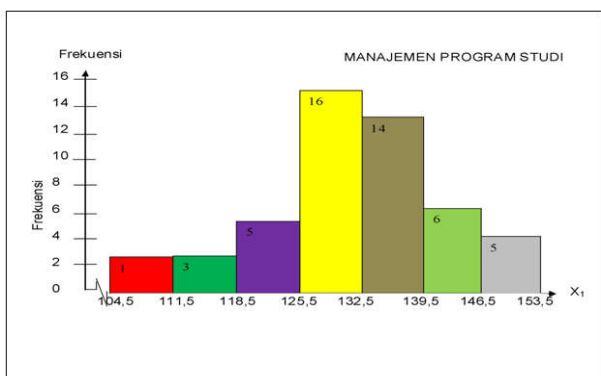**Table 6. The list of Study Program Management Score Frequency**

The number	The Class The Interval	The frequency		
		Absolut	Relatively (%)	The cumulative (%)
1	105 - 111	1	2	2
2	112 - 118	3	6	8
3	119 - 125	5	10	18
4	126 - 132	16	32	50
5	133 - 139	14	28	78
6	140 - 146	6	12	90
7	147 - 153	5	10	100
The number of		50	100	

Learning climate

Learning Climate Data from the results of the study showed a range of empiric score between 92 to 139, with extensions theoretic score between 28 - 140. The results of the calculation of the average price of 116,7; deviation 10,15; and variant 103,07. With the number of the interval class 7 and the length of the interval class, 7 acquired frequency distribution can be seen in table 7 and histogram in Figure 5.

Interpersonal communication.

Based on the research data for Communication Interpersonal, which have extensions theoretic 24-210 score, obtained the

Picture 4. The variable Data Histogram Study Program Management

Table 7. Learning Climate Score Frequency List

| The number	The Class The Interval	The frequency		
		Absolut	Relatively (%)	The cumulative (%)
1	92 - 98	3	6	6
2	99 - 105	3	6	12
3	106 - 112	10	20	32
4	113 - 119	13	26	58
5	120 - 126	15	30	88
6	127 - 133	5	10	98
7	134 - 140	1	2	100
The number of		50	100	
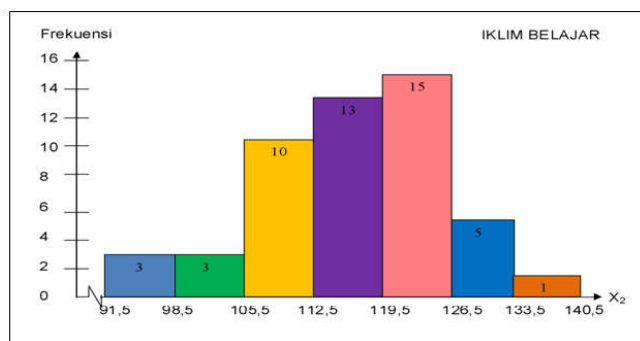
Picture 5. Learning Climate Variable Data Histogram

lowest score 168, the highest score 204, with 36 Scores range from the results of the analysis of the data obtained the average 185,52; deviation 9.97; and variant 99,44. With many of the grade 7 and grade 6 length frequency distribution made Interpersonal Communication variable data such as the Table 8.For more clarify the presentation and Interpersonal Communication data is also presented in the form of the histogram as picture 6.

Table 8. Interpersonal Communication Score Frequency List

The number	The Class The Interval	The frequency		
		Absolut	Relatively (%)	The cumulative (%)
1	168 -173	8	16	16
2	174 - 179	8	16	32
3	180 - 185	6	12	44
4	186 - 191	13	26	70
5	192 - 197	9	18	88
6	198 - 203	5	10	92
7	204 - 209	1	2	100
The number of		50	100	
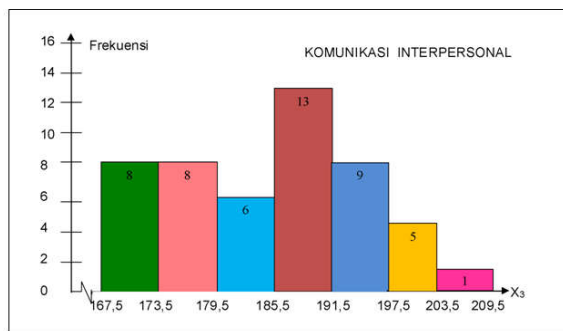
Picture 6. The variable Data Histogram Interpersonal Communication

Hypothesis Testing

After the analysis of the structural model is done, the results obtained are used to test the hypothesis that asked questions and measure the amount of percentage of the influence directly or indirectly between the variables. The conclusion of the proposed hypothesis will be drawn by the path coefficient and the significance for each band in detail.

The direct effect of study program management positive learning achievement

This is a statistical hypothesis can be formulated as follows:

H0: $\rho41 \leq 0$
H1 : $\rho41 >?0$

The results of the calculation of the line and the coefficient thing, to test the hypothesis above is presented in the following table:

Table 11. The hypothesis of Study Program Management Learning achievement

The number of the observation (n)	The path coefficient ($\rho41$)	T empirical	T table	
			A=0.05	A=0.01
50	0,329	3,609*	1,676	2,403

Description:
*= path coefficient is very significant, thit (3,609)> ttab on
α=0.01;council(50)=(2,403)

The results of the calculation as shown in the table above shows that the path coefficient studies program management of learning achievement ($\rho41$)= 0,329 with thing = 3,609. Because T empirical = 3,609 and T table = 2,403 on α=0.01, then T empirical table, 3,609 > 2,403, then H0 rejected which means that there is a positive direct impact study program management of learning achievements.

The direct effect of study program management positive Interpersonal Communication

This is a statistical hypothesis can be formulated as follows:

H0: local churchmen $\leq \rho$ 0
H1 : local churchmen $>??$ 0

The results of the calculation of the line and the coefficient T empirical, to test the hypothesis above is presented in the following table:

Table 12. Testing The hypothesis of Study Program Management Interpersonal Communication

The number of the observation (n)	The path coefficient (ρ local churchmen)	T empirical	T table	
			A=0.05	A=0.01
50	0,403	2,532*	1,676	2,403

Description:
*= path coefficient is very significant, thit (2,532)>ttab on α=0.01; council(50)=(2,403)

The results of the calculation as shown in the table above shows that the path coefficient of study program management interpersonal communication (ρ local churchmen)= 0,403 with T empirical = 2,532. Because T empirical= 2,532 and T empirical = 2,403 on α=0.01, then T empirical> Ttabel, 2,532 > 2,403, then H0 rejected which means that there is a positive direct impact study program management of interpersonal communication.

The direct effect positive learning climate of learning achievements

This is a statistical hypothesis can be formulated as follows:

H0: $\rho 42 \leq 0$
H1 : $\rho 42 > ?0$

The results of the calculation of the line and the coefficient T empirical, to test the hypothesis above is presented in the following table:

Table 13. Learning Climate hypothesis against the learning achievements

The number of the observation (n)	The path coefficient (ρ42)	T empirical	T tabel	
			A=0.05	A=0.01
50	0,293	3,027*	1,676	2,403

Description:
*= path coefficient is very significant, thit (3,027)>ttab on α=0.01; council(50)=(2,403)

The results of the calculation as shown in the table above shows that the path coefficient learning climate of learning achievement (ρ42)= 0,293 with T empirical = 3,027. Because T empirical g = 3,027 and table = 2,403 on α=0.01, then t empirical> t table, 3,027 > 2,403, then H0 rejected which means that there is a direct effect positive learning climate of learning achievements.

The direct effect positive learning climate of Interpersonal Communication

This is a statistical hypothesis can be formulated as follows:

H0: $\rho 32 \leq 0$
H1 : $\rho 32 > ?0$

The results of the calculation of the line and the coefficient T empirical, to test the hypothesis above is presented in the following table:

Table 14. Learning Climate hypothesis against Communication Interpersonal skills

The number of the observation (n)	The path coefficient (ρ32)	T empirical	T table	
			A=0.05	A=0.01
50	0,574	3,605*	1,676	2,403

Description:
*= path coefficient is very significant, thit (3,605)>ttab on α=0.01;council(50)=(2,403)

The results of the calculation as shown in the table above shows that the path coefficient learning climate of interpersonal communication (ρ32)= 0,574 with t empirical= 3,605. Because t empirical = 3,605 and t table = 2,403 on α=0.01, then T empirical> T table, 3,605 > 2,403, then H0 rejected which means that there is a direct effect positive learning climate of interpersonal communication.

The direct effect positive Interpersonal Communication of learning achievements

This is a statistical hypothesis can be formulated as follows:

H0: $\rho 43 \leq 0$
H1 : $\rho 43 > ?0$

The results of the calculation of the line and the coefficient T empirical, to test the hypothesis above is presented in the following table:

Table 15. Interpersonal Communication hypothesis against Learning achievement

The number of the observation (n)	The path coefficient (ρ43)	T empirical	T table	
			A=0.05	A=0.01
50	0,380	4,847*	1,676	2,403

Description:
*= path coefficient is very significant, thit (4,847)>ttab on α=0.01;council(50)=(2,403)

The results of the calculation as shown in the table above shows that interpersonal communication path coefficient of learning achievement (ρ43)= 0,380 with T empirical = 4,847. Because T empirical = 4,847 and t table = 2,403 on α=0.01, then T empirical> T table, 4,847 > 2,403, then H0 rejected which means that there is a positive direct influence interpersonal communication of learning achievements. A summary of the results of the hypothesis test through the calculation of the line and the coefficient t-test can be seen in the following table: From the table of 16 above in overall seen that from five *loading factor* that describes the direct caused by exogenous variable against exogenous, all worth show positive values. This means that the influence of exogenous supply against the endogenous is positive (*positive effect*) and to the value of T empirical value greater than the value of T table. This means the relationship affected by each candidate variables (exogenous supply of exogenous) is significant. The line and the coefficient value from each of the variables can be described as follows:
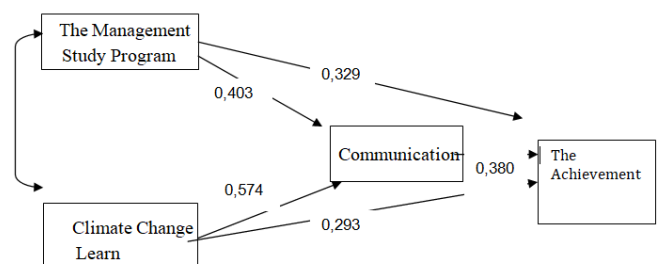
Picture 2. *The Path* diagrams for Path coefficient

**Table 16. A summary of the results of the hypothesis Testing**

No	The Path	The Path coefficient			T empirical	T table	
		Directly	Not Directly	The Total		A=0.05	A=0.01
1.	P41	0,329	-	0,329	3,609	1,676	2,403
2.	P31	0,403	-	0,403	2,532	1,676	2,403
3.	P42	0,293	-	0,293	3,027	1,676	2,403
4.	P32	0,574	-	0,574	3,605	1,676	2,403
5.	P43	0,380	-	0,380	4,847	1,676	2,403
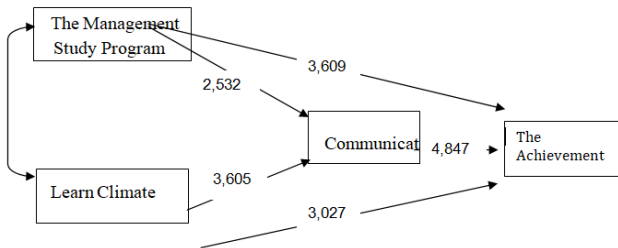
Picture 3. *The Path* **to T empirical diagram**

Based on the results of the calculation of each exogenous variable on the endogenous variable obtained two-equation model structural sub:

Structural Sub Model 1
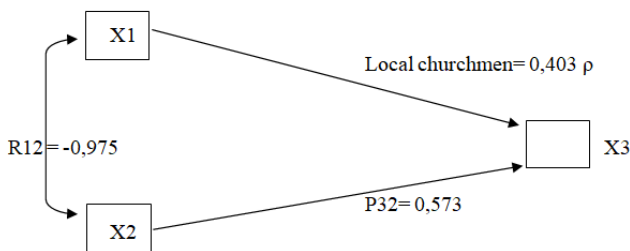
Picture 4. Structural sub model the influence of the management of the program of study and learning climate of interpersonal communication

On the substructure of 1 showing the influence in composite and partially between the management of the program of study and learning climate of interpersonal communication. The influence of the management of the program of study and learning climate of interpersonal communication can be seen through the results of the calculation in the following summary model.

Table 15. The Model Summary

The Model	R	R Square	It said the R Square	Std. The error of the Estimate
1	A 0.971	0.942	0.940	2.44938

Predictor: (Constant), X1,X2

Great numbers R square (r2) is 0.942. The figure can be used to find out the influence of the management of the program of study and learning climate of interpersonal communication that is equal to 0.942.

The figure shows the influence of the management of the program of study and learning climate of interpersonal communication by 0,942, now the remaining 0,058 influenced other factors. In other words, and its variability interpersonal communication that can be explained by using the variables study program management and learning climate is 0,942, while the influence of 0,05.8 caused by other variables outside of the model.

To know whether the regression model above is correct or incorrect, required hypothesis test. This hypothesis test using numbers F as indicated in the table below: Based on the table is reachable values F of 382.575 with the significance of 0.000.

Table 16. ANOVAb

The Model		Sum of Squares	Indonesia Recorded It's 94	Mean Square	F
1	Regression	4590.504	2	2295.252	382.575
	A Residual	281.976	47	5.999	
	The Total	4872.480	49		

a. Predictors: (Constant), X1,X2
b. Dependent Variables: X3

Because of the significance of numbers smaller than 0.05, then the hypothesis of research studies program management and learning climate affect interpersonal communication can be accepted. In other words, the structural submodel can be received. The greatness of the influence of other factors is (1-0 0.058.753), or error coefficient of 0.058. Structural Equation from the sub-structure I can be made from the following table
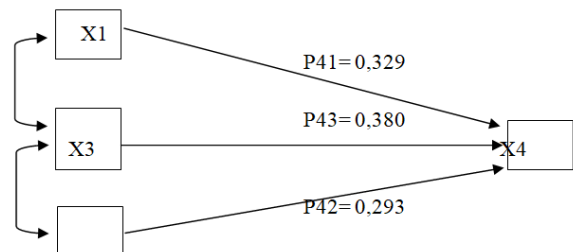
Table 17. Coefficients

The Model		Unstandardized Coefficients		Standardized Coefficients	Thit	T(0.005)
		B	Std. Error	Beta		
1	(Constant)	67.754	4.887		13.864	0.000
	X1	0.391	0.155	0.403	2.532	0.015
	X2	0.563	0.156	0.574	3.605	0.001

A. Dependent Variables: X3
Structural Equation from the sub-structure of 1 is:
$X3= 0{,}403X1 + 0{,}574X2 + 0{,}058\varepsilon1$

Structural Sub Model 2

Picture 5. Structural sub model the influence of the study program management learning climate, interpersonal communication of learning achievements

Table 18. The Model Summary

The Model	R	R Square	It said the R Square	Std. The error of the Estimate
1	A 0.992	0.984	0.983	0.04100

A. Predictors: (Constant), X1, X2, X3)

Table 19. ANOVAb

The Model		Sum of Squares	Indonesia Recorded It's 94	Mean Square	F	Sig.
1	Regression	4.639	3	1.546	919.692	A 0.000
	A Residual	0.077	46	0.002		
	The Total	4.716	49			

Predictors: (Constant), X3,X2,X1
Dependent Variables: X4

Table 20. Coefficients

The Model		Unstandardized Coefficients		Standardized Coefficients	Thit	T(0,005)
		B	Std. Error	Beta		
1	(Constant)	-1.394	0.185		-7.554	0.000
	X1	0.010	0.003	P_{41}=0.329	3.609	0.001
	X2	0.009	0.003	$_{42}$=0.293 ρ	3.027	0.004
	X3	0.012	0.002	P_{43}=0.380	4.847	0.000

A. Dependent Variables: X4 Structural Equation from the sub-structure of 2 is: X4=X1 +0,2930.329X2 + 0.380 X3 + 0.016ε2

The discussion

The greatness of the contribution of the variables study program management and climate change learn together against interpersonal communication is was 0,058 0,94.2 while the rest is the influence of the variables other than the variables study program management and learning climate. The contribution of the variables to study program management interpersonal communication directly is of 0.403. While learning climate variables contribute directly to the interpersonal communication of 0.574. These findings indicate that to improve interpersonal communication, students must have a good perception of the management of the program of study and a good learning climate where both of them have the contribution of 0,942 to improve interpersonal skills. Second, there is a significant impact study program management, learning climate and interpersonal communication together against the learning achievements. Structural Equation from the analysis of the path of study program management, learning climate and interpersonal communication together against the learning achievements are Substructure I: X4= 0.329X1 +0,293X2 + 0.380 X3 + 0.016ε2. The greatness of the contribution of the study program management variable, climate change study of interpersonal communication together against the learning achievements is of 0,984 while 0.016 rest is the influence of the variables other than the studies program management variable learning climate and interpersonal communication. The variable contribution program management studies toward learning achievements directly are of 0.329. Learning climate variable contribution toward learning achievements directly is of 0.293. While the contribution of interpersonal communication variables against the learning achievements directly is of 0.380. These findings indicate that to improve learning achievements, students must have a good perception of the study program management and climate change study interpersonal communication. The influence of indirect study program management learning achievement through interpersonal communicate is 0.1531. The influence of indirect climate change study in learning achievement through interpersonal communication is 0.2182. The Total influence of study program management of learning achievements is 0.4821. The Total influence of climate change on learning is learning achievements 0.5112.

These findings indicate that to improve learning achievements, it is necessary to consider and improved perceptions of department management rule, learning climate and interpersonal communication either directly or indirectly can improve learning achievements.

Research limitation

In this research has been done by the various attempts to avoid the things that can reduce the weight and the results of research, so that the result can be in accordance with the goals. However, acknowledged there are still some weaknesses in this research, including:

- Lack of control over the other variables that affect learning achievements, allowing the existence of other variables that can affect. In the technical guidelines of this research is very difficult to control the sample research. Because this research does not use research methods experiments where done under a more stringent control.
- This research is restricted three free variables (*exogenous*), namely, study program management learning climate and interpersonal communication. While there are still many other factors which contribute to improving the Achievement Belajarsebagai bound variable *endogenous ()* is not examined in this research. As has been discussed in the theoretical framework that for student learning meningkatkanPrestasi required other factors.
- The sample examined in this research is only done to the physical education students with samples of 50 students, cause the conclusion may not be generalized to all students of the Physical Science Faculty University of Manado. Therefore need to research similar to this research to include a broader sample. However, researchers doing business pc with doing the spread of questionnaires against the samples in accordance with the procedure for each variable research.while the errors (*human error*) that might occur during the spread of questionnaires trying to minimize.

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