EVALUATION OF LEARNING STYLES AND ACADEMIC PERFORMANCE IN STUDENTS OF ISLAMIC AZAD UNIVERSITY

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Abstract

Introduction: The style of learning is one of the effective factors on students' learning. People experimentally find their learning styles base on their individual differences, same as other abilities

Objective: Therefore, this study examines the learning styles in male and female students of Azad's university and their academic performance

Methods: The sample included1800 male and female students of Sistan and Baluchestan Province, That were chosen by Relative Classification method, and completed the Kolb's stylistic test, Roger's self-concept tests, Raven's Progressive Matrices and Motivational Strategies for Learning Questionnaire. The chi-square test is used to analyze data.

Results: The analysis of variance results showed that there is a relationship between the different learning styles of students and their fields of study. The results also show a significant difference between the learning styles of male and female students.

Conclusion: It can be said that the learning style is one of the effective factors on the academic achievement of students, important and useful results can be given about better ways of studying and learning to help students for a better and deeper learning.

Key words:learning styles, motivational strategies, difference fields of study.

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Introduction:

The importantfactis thatall theexciting developmentsin theworldcome through human learnings. Human derives to Most of theirmerit through learning, he gets Intellectualgrowththroughlearningandmental abilitieswill beactualized. So itcan be concluded thatallhumanprogressis achievedas a resultof learning(B. born1373). KolbandFry'slearningstyles is rooted in theories Guilford and Piaget. Guilforddivides thinking into two generalcategories of convergent and divergent. Piagetalso classified ways of pondering intwo-absorband adaptin mental transition. KolbandFryare inspired by the theoryofthefourlearningstylesdiverging, converging, absorbingandadapting(S. 2001).

Hohan(1995) claimed the termlearningstyles as beliefs, preferences, and behaviors thatare usedbypeopleto helpthemlearninginacertainposition(quotingS., 2005).

Generally, the learning styleis:A set ofrelatedattributes, in which the wholeisgreater thanits parts, Gestaltisthelearning styleof theinternal and externaloperationsderived fromneuralbiologyand development ofthe individual andthe personalityandreflectsas a behavior(Kyiv andFerrell, 1990). Hence,learning style is concerned to atrend ofthespecific learningmethod.

Learning styleis assumed as acontributing factorinlearningthatit refersto the waystudents learn something. Piercedefined learning styleas theway that studentsprefermore thanother methods(Seif, 2009).

Dealing withdifferentlearnersmust admit thateach of themmay havea particular styleoflearning todeal withhomework andlearningdifferentsubjects. So that some learners may need help to learn how to pay attentiontoimportant points as they are reading a text andignore theless importantdetails. Whereas some may feelbetterandclearer learning in undetected situations, and needobvious and step-by-stepguidelines(Ahmed,2001).

Various researcheshave been doneabout learning styles,includingDunn,Beaudryand Klaus have shown in their researchthatstudentslearnbetterwhentheyarestudyingin their favorite situation(quotingRezaei, 2005).

Turnz(1986) showed in their studythat most of intelligentstudents use absorbent learning styles in their learningcontent. Theyarevery strongin devisingtheoreticalmodels and mostly attracted byScienceand Mathematicsareoftenabstract concepts. Thesepeople prefertolearnaloneandinsilence(Emamipour, 2010).

Meanwhile,Coreysays thatthere arethree types ofviewsonstyles.Visions that are related tomethods of perceptionforsimulating theinformation toenvironment, Visions thatare related tomethodsof perception forsimulating the informationindependently, and the visionsthatarerelated toteaching methods(Corey, 1990).

Styles are different from Strengthsand Strategies. Abilitiesare competenciesorenabling variableswhilestyles aretrend or functional variablesin addition tothe capabilitiesofunipolarand are valueorientation. It meansthathigh levels ofabilityare preferredthanlowervalues andarehighlyadaptive. Some controls,such ascognitiveorconceptual distinctionmonopoles orasconfined controlsarevalue orientation against flexiblecontrol(Valinejad, 2009).

Cognitive styles are mentalor behavioralstrategiesthat areregularlyusedby thepersonto solve the problem. Meanwhile,quirksarecontinuouspotential abilities that are different from person to person. Forexample,IQ,and workingmemory(Aghdam, 2010).

The results indicatethat individualsare different to face by theexperimentaltasks, but thisvariabilityis not a reflectionofintelligence orabilities,spatialstructures(Villerman, 1979, and quotedWoleFolk1995).

Cornbakhand Snow(1997) argue thatcognitive stylescannot belogically(or whether they aremeant tomethodology) distinguished fromcharacteror ability.

According to Genderdifferencesineducational achievementcan be said thatgirlsare superiorto boys in achievement.Girlsare usuallysuperiorto boysinsocialscience and theology courses and although boys are better insubjectssuch asmathematic, than girls, the differenceis not huge(Ghafuri, 2001, Shahryariquoted).

Cognitive stylesareoftenplaced betweenmental abilitiesandpersonality traits and indicate thethinking styles. So they are affectedandalsoin turnaffectothercognitiveabilities. Cognitivestyles are shownin organizing andcontrolling attention, impulses, thoughtsand behavior,and it's a link betweendimensionsofcognitive, emotionaland socialfunctions(Valinejad, 2009).

Therefore, thisresearch has done a study on identifythe impact ofstudent learningstylesonacademicprogress ofstudents.

Methods:

Subjects: The study sample included 1800 male and female students in different fields of the Sistan and Baluchistan province that were selected using proportional stratified sampling. The questionnaires were fully completed.

Research tool: four typesof measuringinstruments were usedtocollectdata forthe study: Club, Rogers, Ravenandmotivationalcomponents.

1. The CognitiveStyle Questionnaire of Kolb (Convergence, Divergence, AbsorberandAccommodator):

CognitiveStyle Questionnaire consistsof12 questionsin the contextofthe questionnaire.

Scoringmethod, in themethod ofcalculating thequestionnaire it should benoted thateach of

the learning stylesare combination of fourmodels oflearning: a Concrete

Experience(CE)andreflective observation(RO),abstractconceptualization(AC)andActive

Experimentation(AE).Thus, they are usefulfordetermining the typeof learningstyle.

Thesumof thesefour parts in twelvequestions, gives fourgrades which are representing

four learning styles and specify the learningstylesof individual. Kolb(1985),reported the

reliabilitycoefficient of CognitiveStyle in LSIas following:Cronbach's alpha coefficient:

0.82 (CE)concrete experience,

0.73 (RO)reflective observation,

0.83 (AC)abstractconceptualization
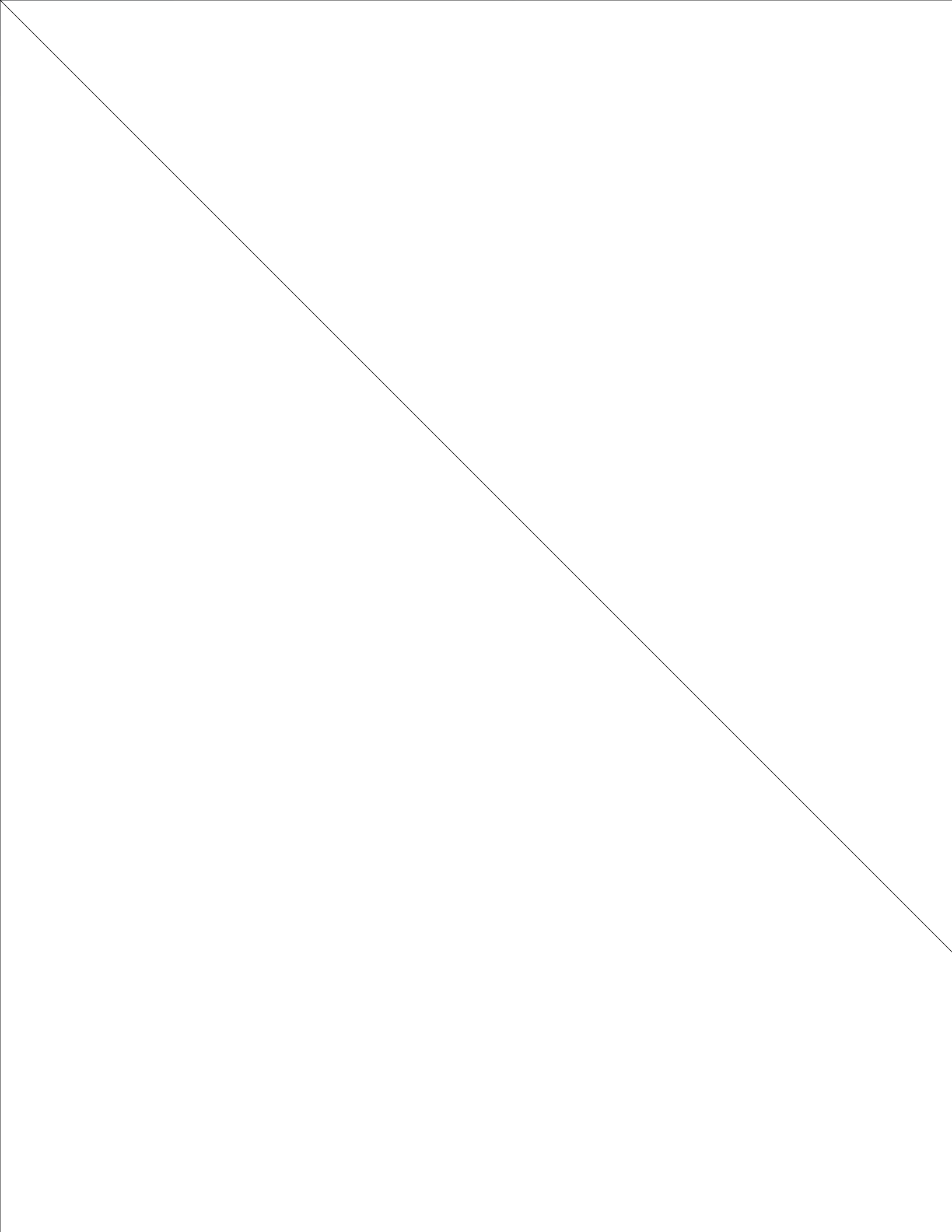
Ms. HosseiniLargany has been reported (2003) the reliability coefficient of the translated form of Kolb's cognitive style questionnaire as following:

(AE) 0/73   (AC) 0/76   (RO) 0/64   (CE) 0/68

2. Roger's self-concept test:

Rogerstestwas usedto assessstudents' self-concept variables.Thistestiscomposed of50characters.the Subject shouldprovide thegrades7-1toeach ofcharacter according to his evaluation on each character in his personality andeventuallyachieveda totalscore, which represents a responserate ofself-conceptof the individual.This test is standardized inIranandthe validityofthetest is reported80/0 and68/0. In thepresent study, usingCronbach's alpha reliability, the value of the test was estimated0.73.

3. Raven's IQ test:

Ravenintelligence test, theRaven'sIQtestwere used to measure thevariables of students'IQ.This test has been implemented in the high schools in Iran. However In this study, the test was carried out only in first and second grade of high school. Levels of reliability and validity of this test are reported 0.85 and 0.76. The validity of the testwas estimated 0.78, using Cronbach's alpha.

4. Motivation Strategies for LearningQuestionnaire:

Motivational Strategies for LearningQuestionnaire is usedfor theevaluation ofstudents'motivationand learning strategiesandcognitivemethods.Differentprovisions areconforming ofthisscalebyAkelz(1983), Harter's(1981) andAynistayn, ShaltandPalmer(1987).Motivational Strategies for learningscalecontains44 articlesandis composedoffivesubscales. Scoring, thisindex includesdescriptivephrasesthattheLikertscoring25and37oftheArticles41 and42arereversescoredand the remainingitemsarescoreddirectly.

Reliability: Akelz(1983) andShank(1981) reported 0.89 for the consistency of internalself-efficacy. In Rafi'eyan'sstudy, (2009) the reliability subscale of Self-Efficacyis achieved 0.81 and 0.80 throughCronbach's alphaandsplit halfmethod.Akelz(1983) andHarter's(1981) have reported 0.87 for the alpha coefficient ofendogenous values.InRafi'eyan'sstudy,(2009) reliability subscales

oftheendogenousvaluesare achieved 0.77and0.74 through Cronbach's alphaandsplit half method.TheLibertandMorris(1967) in the study internal consistency have reported, 0.75 forthescale ofanxietyin exam time. In theRafi'eyan'sstudy (2009) the reliability subscale of the Anxietyin exam time has obtained0.72and0.56 byCronbach's alpha andsplit halfmethod.

Rating:

In theRafi'eyan'sstudy,M (2009) the Questionnaire of Motivation Strategies for Learningwascorrelatedwithother variables. 0.64 Correlation is reported is betweentest anxiety andanxietysubscales(Abolqasemiet al, 1375).And Also 0.46 Correlationis obtained betweenself-efficacysubscale andtheSelf-EfficacyScale of Scherreret al(1982).(Kiamarsy,2010).

Findings:

- There is a significantrelationshipbetweenstudents of different fields and their learning styles.

Table 1 – Test of the relationship between learning styles of students in different fields

Learning Styles				Field of Study
Accommodator	Convergent	Absorber	Divergent	
27	34	53	273	Cultural Science
33	40	202	78	Nursery
29	173	51	45	Science
90	117	51	28	Engineering
136	64	87	48	The associate editor
315	428	444	472	Total

x^2=878/42   df=12   Sig =0/000

- There is a significant difference between male and female students' learning styles.

Table 2 - Summary of t-test results for students

Significance	F	Mean square	Degrees of freedom	Square	Source of variation
0/04	2/77	17/07	3	51/22	Between-group
		6/15	1655	10190/87	Intergroup
			1658	10242/09	Total

The F-test results indicate that there is a significant difference in students' learning styles and their academic achievement (005/0 <P and 77/2 = F).

Discussion and Result:

The aim of this study was to examine male and female students' learning styles and their academic performance in Islamic AzadUniversity. According to the results of this study, it was observed that there is a significant relationship between students' learning styles in different fields. These findings are aligned with the findings of other researchers based on learning styles of students in different fields (Largany, 2003, Rezaei, 2005).

The results of this study showed that there is a significant difference between male and female students' learning styles. . These findings are aligned with the findings of other researchers about a significant difference between male and female students' learning styles.(Research Hikson et al, 1996, Largany, 2003).

The results of this study showed that there is a significant difference in students' learning styles and their fields. The results also indicate that there is significant correlation between male and females' learning styles in culturalscience. As most of female students of cultural science have a divergent learning style. There is significant difference between learning styles of engineering student, thus most of the boys have a converging learning style.

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Therefore, the results may indicate the students' learning styles is one of the are effective elements in theiracademic achievement, important and applicable results can be given to students about how to study and learn better and deeper.

Resources

1. -Ahmadi, s. a. (1997). Psychology for kids, Tehran, publication of the Sixth Edition, torch

2. -Emami, s. (2001). A study on development style of thinking in students and students and its relationship with creativity and academic achievement. Islamic Azad University, Ph.d. dissertation, science and research branch.

3. Hibat Allah, a b-. (1994). the relationship between the family and environmental education in the loss. M.a. thesis. Faculty of education and psychology at Tehran University.

4. -Hosseinilergani, m. (1998). a comparison of undergraduate students ' learning styles, and m.a. and Ph.d. level high and weak male and female three medical and technical educational, science-engineering, University of Tehran. M.a. thesis. Allamehtabatabaei.

5. -Rezai, a.. (1999). a comparison of learning styles (dependent on the background and the subject-invariant feature transform) students and students of pedagogical and mathematics of the University of Tehran. M.a. thesis. Allamehtabatabaei.

6. -S., Ali Akbar. (1999, 2000). Rearing Psychology (learning and educational psychology). Tehran. Aware of the publication.

7. -A. Aghdam, Asghar. (2000, 2003). evaluation of the impact of cognitive strategies (the components of personal structures-by-target) on amozeshgahi and suitability for academic performance perceptions. M.a. thesis. Faculty of education and psychology, University of Tabriz.

8. -Ghafouri, m. (1997). a study on the relationship between achievement motivation, source control, creativity and academic achievement of high school students of the third year of the new system of the city of Tabriz. M.a. thesis. Faculty of education and psychology, University of Tabriz.

9. -But, y. (2000). a study of the relationship between cognitive style dependent on the background and learning strategies to their background and-invariant feature transform-order and third-year students ' mathematical performance of the chaipareh area. (Master's thesis). Faculty of education and psychology, University of Tabriz