

COGNITIVE AND AFFECTIVE ENGAGEMENT IN A COMPARATIVE PERSPECTIVE: AN EVIDENCE OF FORMAL AND NON-FORMAL POST GRADUATE STUDENTS

*Hamid Ali Nadeem, Lecturer EPPSL Department, AIOU Islamabad, hamid.ali@aiou.edu.pk

**Dr Ehsan Mehmood, Principal IMCB I-10/1, Islamabad drehsanmahmood@gmail.com

***Irfan Haider, School Education Department, Punjab., rock.seapk@gmail.com

ABSTRACT

This study aimed to determine and compare cognitive and affective engagement of formal and non-formal students at post graduate level. The study was conducted in Federal College of Education Islamabad and four regions of Allama Iqbal Open University Islamabad. The study employed cluster sampling technique selecting all the 100 students of Federal College of Education and 400 students of AIOU Islamabad. Data were collected through Student Engagement Instrument (SEI) developed by Appleton (2010) administering directly to the students. The data were analyzed by using independent sample t-test to compare the mean scores of formal and non non-formal students. The findings revealed that formal students were found better in control and relevance of work load than non-formal students. Formal students created better relationships with their teachers than non-formal students. Formal students were also found better in getting peers and family support for learning than non-formal students. However, both categories of students showed same level of aspiration and future vision and extrinsic motivation.*

Key Words: Aspiration, Extrinsic motivation, Control and relevance, Family and Peer support.

*Here Non-formal students are the students from ODL system.

INTRODUCTION

Student engagement is a mutual cooperation between students, staff, universities and society that facilitates active learning of students through participation in a variety of activities (Lyons & McIlrath, 2011). Student engagement facilitates students to make a significant contribution in their education and earn a distinction in society by values, understanding and attaining lifelong skills (Radloff & Coates, 2009). Engaged students are curious, excited by challenges and take satisfaction in their accomplishments. Engaged students learn more, develop greater critical thinking skills, and are more satisfied with institutions. Over time, students who are more engaged in institutions have better grades and higher achievement on standardized tests (Bedell, 2013). Kuh, Cruse, Shoup, Kinzie and Gonyea (2008) pointed out that student engagement denotes the time and energy students employ in educationally fruitful activities. Kuh (2009) mentioned two major aspects for student success (a) academic engagement, and (b) engagement in co-curricular activities. Finn and Pannozzo (2004) suggested that engaged students should display commitment and a real interest to the tasks assigned by the institutions.

This comparative study consists of investigation about different aspects of students' engagements at post graduate level. This study focused students' engagement under two factors i.e. 'cognitive' and 'affective', which were further divided into six categories. Three categories of students' cognitive engagement were a) 'Control and Relevance' (b) 'Aspiration and Future Goals' (c) 'Extrinsic Motivation' whereas three categories of students' affective engagement were a) 'Teacher Student Relationship' (b) 'Peer Support' (c) 'Family Support'.

LITERATURE REVIEW

Cognitive Engagement

According to Chapman (2003) Cognitive engagement is defined as the extent to which students are taking interest, paying attention and spending mental effort in learning tasks by using cognitive strategy and knowledge to complete a task. Mason (2001) found that in education, employing written tasks that have focused on meaningful experiences for students can facilitate behavioral and cognitive changes that lead to knowledge and skill development. Fredricks, Blumenfeld and Paris (2004) explained that students' cognitive engagement in making efforts to solve problems lead to gain in achievement, although the answer is wrong. They further indicated that any opportunity for students to engage them in learning tasks will bring about desirable learning outcomes.

Control and Relevance to students workload

Tampakis and Vitoratos (2009) showed that the students' workload can be affected by many factors such as the learning environment and the expected academic performance, students' approach to learning, teaching methods, student perceptions of workload etc. Student workload consists of lectures, tutorials, seminars, an organized academic work, preparations for exams and individual study. Students have to cope with too much work to be accomplished within short time (Agolla & Ongori, 2009). Students spend time on a subject based on their interest, importance to their degree programs and perceptions of difficulty to accomplish the task (Jones, Harris, & Gilley, 2014).

The principle of workload is to make sure that students will have sufficient time for quality learning. Student workload consists of the time that require by students for studies, the time offered for them in the curriculum forms, together with the level of difficulty and the quantity of study material (Karjalainen, Alha, & Jutila, 2006)

Aspiration and Future Goals

According to Deci & Ryan (2008) Goal setting is believed very important regarding contentment with life and well being. Ingrid, Majda, & Dubravka (2009) found that when student think about living a happy and purposeful life, they are referring their aspirations for the future. A research conducted by Gutman & Akerman, (2008) concluded that students with more educational aspirations have higher educational attainment and greater motivation than their peers. Research findings of Gushue, Clarke, Pantzer, & Scanlan (2006) revealed that students who are hopeful about their future have more clear visions regarding their educational goals and have more confidence about their ability to find out their future educational identity.

Extrinsic Motivation

Krause, Bochner and Duchesne (2003) explained that motivation is linked closely in education with needs, goals, which contribute to stimulating students' interest in learning and intention to engage in specific activities to achieve various goals. Lei (2010) found that students who are motivated intrinsically develop high affection for learning without need of reinforcement or external rewards. In contrast, students who are motivated extrinsically depend just for desirable results and rewards for their motivation. Extrinsic motivational factors include recognition, competition, compliance, and work avoidance. Celikoz (2010) showed that active learning is promoted by extrinsic motivation and opinions of students and teachers.

Affective Engagement

Affective Engagement provides self-report related to feelings of frustration, boredom, interest, anger, satisfaction; student-teacher relations; work orientation. The affective engagement is characterized by student feelings, attitudes, and perceptions towards the institution. It mainly addresses liking school, belongingness, interests, and general enthusiasm for learning. According to Fredricks, Blumenfeld, & Paris (2004), Affective engagement refers to the relationships of students with their teachers, classmates

and school. They receive positive and negative responses from teachers, class fellows, academics, and school.

Teacher Student Relationship

Teacher is a person working in educational institute who assists the students to achieve behavioral, cognitive and sensory goals and skills prescribed by the educational system. Hughes, Gleason, & Zhang (2005) found that a encouraging teacher-student relationship develops confidence, good communication, mutual respect, trust and a better learning environment. Supportive relationships between teachers and students eventually develop a “sense of school belonging” and push up students to “participate in classroom activities cooperatively” (Hughes & Chen, 2011, p.278). Stuhlman & Pianta (2004) described that a closer teacher-student relationship play an important role and a sign of a student’s adjustment to school. Koplow (2002) suggested that effective student-teacher relationships promote more classroom engagement, confidence and encourages a better sense of security.

Peer Support for Learning

Mead (2001) showed that peer support is a technique of giving and receiving help based on key principles of respect, collective responsibility, and mutual agreement of what is beneficial. In another study Mead (2003) explored that Peer support employs discussion to take view point about people’s experiences, roles, and relationships like family environment.

Huang, Eslami and Sophia-Hu (2010) found that both academic and personal support from peers was positively correlated with students’ comfort with learning. They revealed that any support from either teachers or peers was positively related with student comfort with learning.

Family Support for Learning

Flessa (2010) conducted a study and concluded that parents have strong influence on their children attitudes toward learning, schooling and their success. Parents’ ambitions for their children matter intrinsically. Hong and Ho (2005) found that parent aspirations greatly influence the academic achievement of their children than parent supervision as, monitoring homework of their children, time going out with friends and time watching television. Conway (2008) found that parental efforts have strong influence on student achievement than school resources. Parental engagement has shown a positive correlation with students academic achievement (Avisati, Besbas, & Guyon 2010).

This study was designed to compare above mentioned constructs of students engagement at postgraduate level in Pakistani perspective, for both modes of education i.e. formal and Non-Formal

OBJECTIVES OF THE STUDY

The objectives of this study were to:

1. Explore engagements of formal and non- formal students at post graduate level.
2. Compare engagements of formal and non-formal students.

METHODS AND PROCEDURES

. The study aimed to determine and compare the students engagement of formal and non-formal students of postgraduate level. The study was conducted in Federal College of Education Islamabad and four regions of Allama Iqbal Open University Islamabad i.e. Islamabad Region, Rawalpindi Region, Mirpur Region and Mandi Bahauddin Region to collect data from the formal and non-formal students of postgraduate level respectively.

TARGET POPULATION

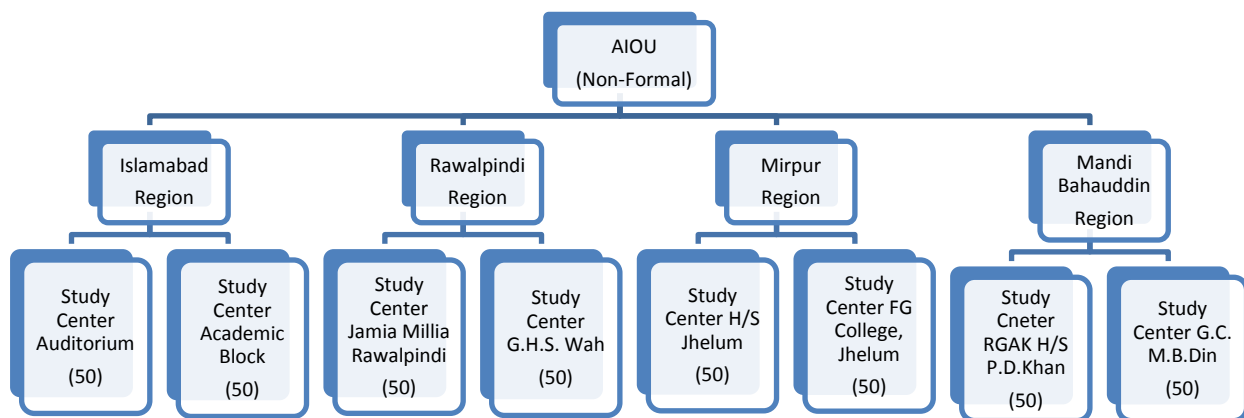
The population for this study was:

1. All the 17640 enrolled students of M.Ed at AIOU, Islamabad in Semester Autumn 2014. (Non-formal students)
2. All the 100 enrolled students of M.Ed in FG College of Education, Islamabad for the session 2014-15. (Formal Students)

SAMPLE OF THE STUDY

This study was conducted using cluster sampling technique which ensures that respondent group rather than individual have been selected. Sample size of both types of respondent was determined under the guide line of Gay, Mills and Airasian (2011) that sample of 400 is enough for population more than 5000 and for the smaller population i.e. less than hundred whole population will be included in the sample. So, all the 100 formal students of Federal College of Education, Islamabad were included in sample considering it as a cluster. Non-formal and 400 non-formal students were included in the sample.

The sample of 400 non-formal students from four regions of Allama Iqbal Open University Islamabad was selected using two stage cluster random sampling technique which selected cluster sampling with individual random sampling. By adapting two stage random sampling technique, 04 regions were selected randomly. Then 08 clusters /study centers (02 from each region) including 50 randomly selected students were included in sample to collect data from the respondent. The sample selection procedure is further elaborated in following diagram.



COLLECTION OF DATA

Student Engagement Instrument (SEI) developed by Appleton (2010) was used to measure students engagement. Permission was obtained from the concerned authority of the instrument to use it. Student Engagement Instrument (SEI) consists of 35 items, which measure three factors of students cognitive engagement i.e. (a) 'Control and Relevance', (b) 'Aspiration and Future Goals', (c) 'Extrinsic Motivation' and three factors of students affective engagement i.e.(a) 'Teacher Student Relationship', (b) 'Peer Support', (c) 'Family Support'. This instrument was developed on five point Likert scale indicating: Strongly Disagree = 1, Disagree = 2, Neither Agree Nor Disagree = 3, Agree = 4 and Strongly Agree = 5. The Cronbach alpha (α) value for SEI was 0.785 which was acceptable.

Data were collected by the researcher by visiting relevant study centers personally. Questionnaires were distributed personally among sampled M.Ed students of AIOU and Federal College of Education, Islamabad. Response rate from non-formal students was 97% (388/400). As the data from 50 students were collected from 7 regions while in 8th region, 38 students (at study centre Pind Dadan Khan) were available instead of 50. Out of 100 M.Ed (Formal) students of Federal College of Education Islamabad, 83 students returned the questionnaires. Response rate of Formal M.Ed students was 83%.

DATA ANALYSIS

Data collected from the respondents were employed to compare student engagement factors. Independent sample t-test was conducted to compare the mean score of each factor of students' cognitive and social engagement of both categories of (Formal/non-formal) students.

Table 1

Comparison of Cognitive Engagement factors of Formal and Non-formal Students(N=83+388=471)

Factors	Teaching Mode	N	M	SD	T	df	Sig. (2-tailed)
Control and Relevance	Formal	83	4.024	0.651		469	0.000
	Non-Formal	388	3.650	0.556	5.381		
Aspiration and Future Goals	Formal	83	4.192	0.658		469	0.202
	Non-Formal	388	4.091	0.632	1.283		
Extrinsic Motivation	Formal	83	3.629	0.703		469	0.280
	Nom-Formal	388	3.537	0.696	1.085		

Table 1 Presents the comparison of cognitive engagement factors of formal and non-formal students by conducting independent sample t-test and depicts that:

1. There is significant difference between the mean scores of Control & Relevance of formal and non-formal students, as $\rho = 0.000$ ($\rho < 0.05$), for formal students ($M = 4.024$, $SD = 0.651$) and for non-formal students ($M = 3.650$, $SD = 0.556$); $t(469) = 5.381$.
2. There is no significant difference between the mean scores of aspiration & Future Goals of formal and non-formal students, as $\rho = 0.202$ ($\rho > 0.05$), for formal students ($M = 4.192$, $SD = 0.658$) and for non-formal students ($M = 4.091$, $SD = 0.632$); $t(469) = 1.283$.
3. There is no significant difference between the mean scores of extrinsic motivation of formal and non-formal students, as $\rho = 0.280$ ($\rho > 0.05$), for formal students ($M = 3.629$, $SD = 0.703$) and for non-formal students ($M = 3.537$, $SD = 0.696$); $t(469) = 1.085$.

Table 2

Comparison Of Affective Engagement Factors Of Formal And Non-formal Students(N=83+388=471)

Factors	Student	Mode	N	M	SD	T	df	Sig. tailed)	(2-
Teacher Relationship		Formal	83	4.008	0.657	10.509			
		Non-Formal	388	3.340	0.493		469	0.000	
Peer Support		Formal	83	3.893	0.641				
		Non-Formal	388	3.562	0.642	4.268	469	0.000	
Family Support		Formal	83	3.906	0.581				
		Non-Formal	388	3.730	0.711	2.408	469	0.035	

Table 2 Presents the comparison of affective engagement factors of formal and non-formal students basis by conducting independent sample t-test and depicts that:

1. There is significant difference between the mean scores of teacher student comparison of formal and non-formal students, as $\rho = 0.00$ ($\rho < 0.05$), for formal students ($M = 4.008$, $SD = 0.657$) and for non-formal students ($M = 3.340$, $SD = 0.493$); $t(469) = 10.509$.
2. There is significant difference between the mean scores of peer support of formal and non-formal students, as $\rho = 0.00$ ($\rho < 0.05$), for formal students ($M = 3.893$, $SD = 0.641$) and for non-formal students ($M = 3.562$, $SD = 0.642$); $t(469) = 4.268$.
3. There is significant difference between the mean scores of family support of formal and non-formal students, as $\rho = 0.035$ ($\rho < 0.05$), for formal students ($M = 3.906$, $SD = 0.581$) and for non-formal students ($M = 3.730$, $SD = 0.711$); $t(469) = 2.408$.

CONCLUSIONS

The study findings portrayed that formal students found better in 'control and relevance to work load' than non-formal students. It showed that formal student study in safe environment than non-formal students and formal institution rules are more flexible than non-formal institutions. Because the regular face to face component in formal set-up is a major component for the evaluation of students' progress. Teacher has a chance to complement any deficiency in the work of students with alternative methods. Formal students did well in the institutions due to hard work as compared to non-formal students. Formal students found more concerned about the revision of lessons to make them understandable.

As regards to 'Aspiration & Future Goals' and 'Extrinsic Motivation' no difference was found between formal and non-formal students. Both categories of students have same level of vision about continuing their higher education and importance of present study for future. They also have same level of extrinsic motivation which showed that both categories of students expect same nature of rewards from parents and teachers. The formal students found better in 'Teacher Student Relationship', 'Peer Support for learning' and 'Family Support for learning' than non-formal students. The formal students had caring teachers than non-formal students; who interested in the students as person, not just as students. These teachers found more open to the students and formal students enjoyed talking to their teachers. They also found available when students require their help and treated students fairly than teachers of non-formal system. The formal students like and care others students better than non-formal students. The formal students support and respect each other better than non-formal students. Family of non-formal students got in touch with institutional activities better than family of non-formal students.

IMPLICATIONS

It is suggested that non-formal students should improve their capability of control and relevance to work load. Non-formal students should be provided safe study environment and their institutional rules must be made more fair and appropriate. Non-formal students are required to create more conducive relationships with their teachers, and their teacher should be convinced to present themselves more caring and helpful for the students. There is dire need to build friendly relationships among the non-formal students so that they can support and respect each other. The family of non-formal students should support them to improve their academic activities and help them to solve their institutional problems. In addition to these both categories of students require to create better future vision and extrinsic motivation.

References

- Bedell, K. V. (2013). *From Research to Practice: Student Engagement*. Michigan State University, USA.
- Celikoz, N. (2010). Basic Factors that Affect General Academic Motivation Levels of Candidate Preschool Teachers. *Education* , 131 (1), pp.113-127.
- Chapman, E. (2003). Alternative approaches to assessing student engagement rates. *Practical Assessment, Research and Evaluation* , 8 (13).
- Deci, E. L., & Ryan, R. M. (2008). *Self-Determination Theory: Questionnaire*.
- Finn, J. D., & Pannozzo, G. M. (2004). Classroom organization and student behavior in kindergarten. *Journal of Educational Research* , 98 (2), pp.79-92.
- Flessa, J. (2010). Good, steady progress. *Canadian Journal of Educational Administration and Policy* , 101.
- Fredericks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School Engagement: Potential of the Concept, State of the Evidence. *Review of Educational Research* , 74 (1), pp.59-109.
- Fullan, M. (2007). *The new meaning of educational change* (4th ed.). New York: Routledge.
- Gushue, G. V., Clarke, C. P., Pantzer, K. M., & Scanlan, K. R. (2006). Self-Efficacy, Perceptions of Barriers, Vocational Identity, and the Career Exploration Behavior of Latino/a High School Students. *The Career Development Quarterly* , 54, pp.307-317.
- Gutman, L., & Akerman, R. (2008). *Determinants of Aspirations, Centre for Research on the Wider Benefits of Learning*. London.
- Hong, S., & Ho, H. (2005). Direct and indirect longitudinal effects of parental involvement on student achievement: Second-order latent growth modeling across ethnic groups. *Journal of Educational Psychology* , 97, pp.32-42.
- Horwitz, E. (2008). *Becoming a language teacher: A practical guide to second language learning and teaching*. Boston: Pearson, Allyn and Bacon.
- Hughes, J. N., Gleason, K. A., & Zhang, D. (2005). Relationship influences on teachers' perceptions of academic competence in academically at-risk minority and majority first grade students. *Journal of School Psychology* , 43, pp.303-320.
- Ingrid, B., Majda, R., & Dubravka, M. (2009). Life goals and well-being: Are extrinsic aspirations always detrimental to well-being? *Psychological Topics* , 34, pp.317-334.

- Koplow, L. (2002). *Creating schools that heal*. New York: Teachers College Press.
- Krause, K. L., Bochner, S., & Duchesne, S. (2003). *Educational psychology for learning and teaching*. Australia: Thomson.
- Kuh, G. D. (2002). *National Survey of Student Engagement: Conceptual Framework and Overview of Psychometric Properties*. Center for Postsecondary Research, Indiana University, Bloomington.
- Kuh, G., Cruce, T., Shoup, R., Kinzie, J., & Gonyea, R. (2008). Unmasking the effects of student engagement on first year college grades and persistence. *Journal of Higher Education* , 79 (5), pp.540–563.
- Lyons, A., & McIlrath, L. (2011). *Survey of Civic Engagement Activities in Higher Education in Ireland*. Campus Engage: Castle Print.
- Macke, C., & Tapp, K. (2012). Teaching research to MSW students: Effectiveness of the team based learning pedagogy. *Journal of Teaching in Social Work* , 32 (2), pp.148-160.
- Mason, L. (2001). Introducing talk and writing for conceptual change: A classroom study. *Learning and Instruction* , 11, pp.305–329.
- Mead, S. (2003). *Defining Peer Support*.
- Mead, S., Hilton, D., & Curtis, L. (2001). Peer support: A theoretical perspective. *Psychiatric Rehabilitation Journal* , 25 (2), pp.134-141.
- Morris, C., & Maisto, A. (2002). *Psychology: An introduction* (11th ed.). New Jersey: Prentice Hall.
- Radloff, A., & Coates, H. (2009). *Australasian Survey of Student Engagement: Australasian Student Engagement Report, ACER*.
- Seitsinger, A., Felner, R., Brand, S., & Burns, A. (2008). A large-scale examination of the nature and efficacy of teachers' practices to engage parents: Assessment, parental contact, and student-level impact. *Journal of School Psychology* , 46 (4), pp.477-505.
- Stuhlman, M., & Pianta, R. (2004). Teacher–child relationships and children’s success in the first years of school. *School Psychology Review* , 33, pp.444-458.
-