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Full Length Research Paper

Perceived Students' Performance in Jordan's Northern Badia Region Affect By Village Distance from Central City.

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The conditions under which education systems contribute to economic and social development have. Environmental positions of schools such as distance from urban centers, and personality and attitude of students and teachers' towards school affect students' performance. This study was conducted using field research involving interviews and surveys conducted with 229 administers located at three directorates of the North Badia region. The subjects were selected using stratified random sampling. Results indicated that education at Mafraq Governorate lacks quality and quantity of supply being located away from urban centers. Village distance is not associated with any of the elementary grade inputs. Further, village distance is associated with number of students at eleventh grade computer, nursing, and vocational streams, and number of sections at eleventh grade literature stream. Finally, it showed a strong and negative association with number of students at twelfth grade computer stream, and positive association of number of students' vocational stream, and a positive association with number of sections of literature stream. Also, village distance is only associated with number of arts teachers and school education levels, and negatively associated with teachers' attitude and available school services. Many schools are suffering from small number of students in geographically dispersed villages. It is more appropriate to increase numbers of students to a range of 20-30 per section to stimulate competition among students.

Keywords: students' performance, village, distance, city, environment, higher education, impact, inputs, outputs, market, Mafraq, Jordan

INTRODUCTION

Educational environment is the setting where interaction between students and teachers takes place (Lackney, 1999). Interactions between environmental factors and personal characteristics of students do exhibit significant effects on the academic performance of students (Lewin, 1943). No systematic attempts have been made to link the performance of schools and teachers to student results, to put in place effective monitoring mechanisms,

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Literature Review and Theory

Marketing Higher Education

A number of authors have recognized the increasingly important role that marketing is playing in higher education institutions' efforts to attract new students (Carlson, 1992; Fisk and Allen, 1993; Murphy and McGarritty, 1978; Wonders and Gyuere, 1991). Marketing actually is linked to needs assessment, market research, product development, pricing, or distribution (Kotler & Fox, 1995; Murphy and McGarrity, 1978). The common feature of all marketing definitions is the satisfying of customer needs. In a higher education context, many customers have been recognized; parents, alumni, donors, the community at large, the government and prospective employers, but the primary customer remains the student (Conway et al., 1994; Robinson and Long, 1987; Scott, 1999; Wallace, 1999).

Incentives and Accountability in Supply -Aligning Incentives On The Supply Side

Improving the supply quality of schools include: (1) Improving the physical quality of schools by increasing pressure on the treasury to spend sufficiently on building and maintaining schools and by delivering services that are not an integral part of the education process. (2) Aligning the incentives of teachers, bureaucrats, and private sector education providers to produce good quality education. For public schools, it requires motivating teachers to teach effectively in the classroom through performance based on financial and pecuniary rewards, in addition to improving the training of teachers (Galal, 2002).

Teaching Environment Effect on Student performance

A study by Tam and Cheng (1995; 1994) conceptualized quality of school teaching environment based upon a multi-perspective approach. It measured the internal social environment of the school organization and its relations to performance of teachers and students. There were six integrated school environment factors that emerged to reflect the learning/teaching environment: strength of leadership, staff frustration, positive classroom climate, caring and support to students (a combination of three environment variables: esprit, intimacy, and student-centeredness), formalization, and pupil control (pupil control ideology minus organizational ideology) (Cheng, 1993; Ming, 1994; Ming & Cheong, 1995). Leadership behavior of the principal was measured by the integration of the five aspects: instructional (educational), structural (hierarchy of authority, hindrance (difficulty and obstruction) as signs of bureaucratization of a school, and participative decision), human resource, political, and cultural (symbolic) (Sergiovanni; 1984; Bush, 1986; Bolman & Deal, 1991; Cheng, 1993). Additional factors included: school context measured by age and size of the school; personal characteristics of students measured by age and gender; personal characteristics of teachers measured by average teacher teaching experience, age of teacher, and gender of teacher. Further, teacher performance was measured by efficacy and time-use at the individual level. Students' performance was measured by learning efficacy (efficiency). Students' competition was as a function of affiliation and involvement, better social relationship increases students' engagement in study (Ming, 1994; Ming and Cheong, 1995).

Physical School Environment Effect on Students Performance

School buildings are of critical importance to teaching and learning environment (Lackney, 1999). Johnson (1990) indicated that quality of the learning environment affects teacher behavior and teacher attitudes towards teaching continuity. The physical setting is an undeniably integral part of the ecological context for learning, and has a positive influence on the bottom-line indicators of quality in education (Lackney, 1999).

Noise and Location of Schools: Studies concluded there are significant increases in systolic and diastolic blood pressure associated with schools being near noisy urban streets (Evans, Kliewer, & Martin, 1991; Berglund and Lindvall, 1986; Cohen et al., 1986). Noise may decrease teaching time by forcing teachers to continuously pause or by making it difficult for the student and teacher to hear one another (Crook and Langdon, 1974). Noise negatively influence children's information processing, personal control, and arousal level (Cohen and Weinstein, 1981).

Building Condition, Building Life-Cycle, and Facility Management: A study by Edwards (1991) found that educational building conditions were hampering student performance, and estimated that improved facilities could lead to a 5.5% to 11% improvement on standardized tests. Lackney (1996) indicated student academic improve with physical comfort and classroom adaptability, building life-cycle, and sustainable schools.

Schools Size: Small schools benefit students socially and academically, while smaller school buildings consume less energy. Additionally, small neighborhood schools serve as community centers. The use of school facilities can be shared with a variety of community organizations fostering meaningful partnerships and

engagement, as well as, opportunities for children to walk and bike as added health benefit (Lackney, 1999). On average, research indicates that an effective size for an elementary school is in the range of 300-400 students and that 400-800 students is appropriate for a secondary school (7-8) (Cotton, 1996). School size shows effect on academic achievement (Burke, 1987; Haller et al., 1993; Stockard and Mayberry, 1992; Walberg, 1992; Bates, 1993; Eberts et al., 1982; Eichenstein, 1994; Fowler, 1992; Summers and Wolfe, 1977; Eberts at al., 1982); extracurricular participation (Barker and Gump, 1964; Burke, 1987; Cawelti, 1993; Howley, 1996; Berlin and Cienkus, 1989; Rutter, 1988; Schoggen and Schoggen, 1988; Stockard and Mayberry, 1992; Walberg, 1992); attendance (Fowler, 1995; Gregory, 1992; Gregory and Smith, 1987; Howley, 1994; Smith and DeYoung, 1988; Walberg, 1992; Bates, 1993; McGanney et al., 1989; Rutter, 1988); and college entry (Fowler, 1992; Jewell, 1989; Burke, 1987; Swanson, 1988).

Conceptual Framework

From the previous review the following framework can be concluded:

- Investment in education is translated into higher economic growth and investment returns, improved income equality, and lower poverty. However, investment in education is challenged by globalization and knowledge economy, economy, demographic pressure, finance of education, pedagogical reforms, and education and migration.
- Education is a value chain that requires context understanding.
- Demand of the educational environment in the value chain is reflected in indications like opportunities of jobs and economic activities, training, and limitations of demand.
- Supply of the educational environment in the value chain includes: capacity of quality and quantity of supply, physical school entities, teaching-organizational, in addition to personality issues of the teacher and the student.

RESEARCH METHODS

Hypotheses of the Study

Based on the above reviewed background and the assumption that Higher Education in Mafraq Governorate lacks supply of applied sciences majors (such as agriculture, engineering, architecture, nursery, medicine, arid land development, and resources management) at the local university level, it is hypothesized that:

The further schools are located from the central city (Mafraq), the less they offer quality and quantity in the educational environments, which impacts the outcomes of higher education at the governorate level and as follows:

School location (measured by village distance from the central city of Mafraq) affects students' competitiveness and preparedness (perceived performance).

School location (measured by village distance from the central city of Mafraq) affects capacity of quantity of supply (students and teachers) of the teaching environment.

School location (measured by village distance from the central city of Mafraq) affects capacity of capacity of teaching-organizational entity of the school environment and of quality of supply.

The hypotheses of the study were investigated based on field research using surveys. One leader for two teams of eight assistants conducted the field research.

Field Research - Survey

Surveys were conducted by interviewing a sample of schools administers from the four directorates in the North Badia region (Mafraq center, Northwest Badia, and Northeast Badia) representing the eighteen municipalities that included a target population of all elementary and secondary schools. Interviews took place inside the school building in the municipal office for the whole sample.

Sampling Technique

A stratified proportional random sample was used.Stratification was for the eighteen municipalities.The 18 municipalities (covering about 100 villages) included: (1) Greater Mafraq, (2) New Bal'ama, (3) Zaa'tri and Mansheyya, (4) Hausha; (5) Baseleyyah; (6) AsSarhan; (7) Sabha and Dafyanah; (8) Safawi; (9) Umm Alquttayn and Makeyftah; (10) Bani hashem; (11) New Rhab; (12) Mansheyyat Bani Hasan; (13) New Deyr Alkahf; (14) New Rweyshid: (15) AsSalhiyyah and Nayfah; (16) Alhusseyn bin Abdullah; (17) Khaldeyyah; (18) New Umm Aljmal.

The total number of sample frame is 337 schools of which 231 for elementary education, and 96 secondary, 8 vocational and academic, and two vocational. The proportion is suggested to be about 60%-70% of the schools distributed over the three directorates and covering all the municipalities. So from each municipality only two-thirds of the total available schools were suggested to be interviewed from both female and male elementary and secondary schools. Randomization used the list of schools in each municipality which is alphabetically ordered. Selection was assigned randomly

Table 1 frequencies distribution of major characteristics of interviewed municipals

	Frequency	Percent	Cumulative Percent
Gender			
Male	104	45.4	45.4
Female	125	54.6	100.0
Educational Level			
Ph.D.	8	3.5	3.5
M.A./M.Sc.	40	17.5	21.0
Diploma	129	56.3	77.3
Bachelor	31	13.5	90.8
College	20	8.7	99.6
Other	1	.4	100.0
Training Workshops			
Management	25	10.9	10.9
Pedagogy	6	2.6	13.5
Computer Skills	13	5.7	19.2
Specialized	1	.4	19.7
Other	2	.9	20.5
None	12	5.2	25.8
More than One	170	74.2	100.0
Years of Service			
<5 Yrs	76	33.2	33.2
6-10 Yrs	57	24.9	58.1
11-15 Yrs	26	11.4	69.4
16-20 Yrs	29	12.7	82.1
21-15 Yrs	23	10.0	92.1
>25 Yrs	18	7.8	100.0
Place of Residence			
Same Village/City	127	55.5	55.5
Another Village	93	40.6	96.1
Another City	9	3.9	100.0
Total	229	100.0	100.0

as every other school in the list until the proportion of 60-70% of the schools is achieved from each of the female and male elementary and secondary schools list. Final sample proportion was 67.9% with a size of 229 schools' administers. Response rate was 67.3% in Mafraq center, 42.3% in Northeast Badia, and 51.5% in Northwest Badia.

Questionnaire Instrument

The questionnaire included the following sections:

(1) Supply for manpower (human resources) capacity – Teaching Environment:

1.a. Capacity of supply at the schools level in terms of quantity: (1) School capacity – distribution across levels of education, gender, and pass and fail; (2) Available levels of study - distribution across gender and pass and fail; (3) Available fields of study – distribution across gender, and pass and fail; (4) High school education distribution across gender, fields of study, and pass and fail; and (5) Available teachers – distribution across majors, gender, age, teaching experience, and teaching efficacy and hours of teaching (time-use for teaching).

1.b. Capacity of supply at the schools level in terms of quality: (1) Perception of available teaching pedagogy; (2) Directing students to choose the track they may need by providing qualified teacher who provides supervision and guidance to students; and (3) Obstacles of concentration at the Ministry of Education Level: financial, specializations, incentives; (4) Evaluating the impact of implemented development program provided by the Ministry of Education and Ministry of Higher Educations on the local community - limitations and vision.

(2) Supply of the educational environment in the value chain includes the teaching-organizational and physical entities, reflected in quality and quantity, in addition to personality of the teacher and the student - School Environment:

2.a. Teaching-organizational entity includes understanding available human resources capacity in terms of quantity: (1) Strength of leadership ((a) instructional (educational) (teaching pedagogy), and (b) structural (organizational: hierarchy of authority, bureaucracy and hindrance (difficulty of authority), and participation decisions); (2) staff frustration; (3) positive classroom environment; (4) caring and support to students (esprit, intimacy, and student-centeredness); (5) formalization; and (6) students control (student control ideology-organizational ideology).

2. b. Physical entity include understanding classroom and school infrastructure and services: (1) Classroom environment include: classroom size, classroom arrangements, lighting, thermal conditions, and air

Table 2 distribution of the dichotomous sub-variables of schools' physical entities

	Frequency	Valid Percent	Cumulative Percent
Classroom Environment			
Classroom Additional Lighting Source			
Yes	182	79.5	79.5
No	47	20.5	100.0
Classroom Heat Control			
Yes	108	47.2	47.2
No	121	52.8	100.0
Classroom Cooling Control			
Yes	60	26.2	26.2
No	169	73.8	99.6
Classroom Natural Ventilation			
Yes	200	87.3	87.3
No	29	12.7	100.0
School Environment			
Computer Labs			
Yes	178	77.7	77.7
No	51	22.3	100.0
Science Labs			
Yes	97	42.4	42.4
No	132	57.6	100.0
Art Studios			
Yes	31	13.5	13.5
No	198	86.5	100.0
Library			
Yes	115	50.2	50.2
No	114	49.8	100.0
Indoor Sports Facility			
Yes	27	11.8	11.8
No	202	88.2	100.0
Outdoor Sports Facility			
Yes	64	27.9	27.9
No	165	72.1	100.0
Food Facility			
Yes	158	69.0	69.0
No	71	31.0	100.0
Praying Facility			
Yes	55	24.0	24.0
No	174	76.0	100.0
School Fencing			
Yes	150	65.5	65.5
No	79	34.5	100.0
School Gate			
Yes	146	63.8	63.8
No	83	36.2	100.0
Rest Rooms			
Yes	210	91.7	91.7
No	19	8.3	100.0
Total	229	100.0	100.0

quality; and (2) School environment include: school size, noise location, building age.

2. c. Other Variables that may affect the teaching-learning environment include: (1) student attitude towards the school, student affiliation and involvement, and students' competition; (2) teacher attitude and teacher performance; and (3) Availability of Services.

(3) Location of these sources from Central city in the North Badia region.

(4) Student performance - Learning efficacy of perceived qualitative performance or attainment test scores of average annual in all subjects such as: Science, Math, Physics, Chemistry, Biology, Geology, Computer Science, Arabic and English.

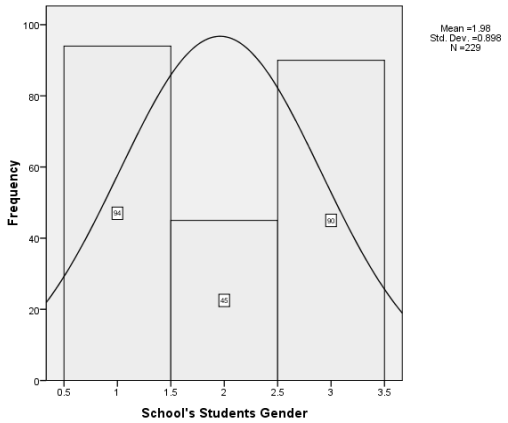

Figure 2 Distribution of students' gender across sampled schools (1 – males, 2- females, 3- mixed gender)

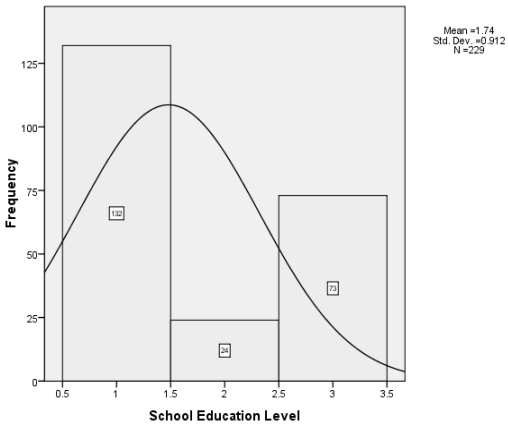

Figure 3 Distribution of education level across sampled schools (1 – elementary, 2- secondary, 3- all levels)

Table 3 paired samples test - overall learning efficacy over village distance from mafraq city

Pair 1	Paired Differences					T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Perceived Students Performance – Overall Learning Efficacy - Village Distance from Mafraq City	-26.156	33.613	2.226	-30.543	-21.770	-11.750	227	.000

RESULTS AND ANALYSIS

Descriptive Statistics

Demographic Information of interviewed subjects: Interviewed schools municipals were distributed over Mafraq Governerate. Location of interviewed schools from the center of the main city of Mafraq ranged from the city itself to villages located 218 km away. The average distance from Mafraq city of the sampled schools was about 29 km. Interviewed subjects were about 45% males and 55% females, see Table 1. Their education level ranged from college to Ph.D. and distributed as follows: Ph.D. (3.5%), Masters (17.5%), Diploma (56.3%), Bachelor (13.5%), and College (8.7%), see Table 1.

Training workshops that municipals received included training in: management (10.9%), pedagogy (2.6%), computer skills (5.7%), and specialized training (0.4%), see Table 1. In terms of years of service for the interviewed municipals: less than five years of service (33.2%), 6-10 years (24.9%), 11-15 years (11.4%), 16-20 years (12.7%), 21-15 years 10%, and more than 25 years (7.8%). About 50% of the subjects served 6-10 years, see Table 1. More than half of the sample comes from the same town they work at (55.5%); about 40.6% come from other villages in the North Badia regions, and only about 3.9% come from outside the North Badia Region, see Table 1.

Table 4 paired samples statistics - overall learning efficacy over village distance from mafraq city

Pair 1	Mean	N	Std. Deviation	Std. Error Mean
Perceived Students Performance – Overall Learning Efficacy	3.10	228	.670	.0444
Village Distance from Mafraq City	29.25	228	33.593	2.225

Table 5 anova – elementary stage students input/capacity of quantity of supply over village distance from mafraq city

Variable	Sum of Squares	Df	Mean Square	F	Sig.
1st Grade No. of Sections	43.880	47	.934	.633	.967
1st Grade No. of Students	19233.927	35	549.541	.786	.783
2nd Grade No. of Sections	31.936	47	.679	.979	.519
2na Grade No. of Students	19058.175	35	544.519	1.531	.060
3ra Grade No. of Sections	25.669	47	.546	.823	.781
3ra Grade No. of Students	15480.724	39	396.942	1.504	.055
4tn Grade No. of Sections	25.026	47	.532	.932	.601
4tn Grade No. of Students	18667.262	41	455.299	1.519	.043
5tn Grade No. of Sections	20.115	47	.428	.776	.846
5tn Grade No. of Students	22845.157	41	557.199	1.676	.018
6th Grade No. of Sections	20.203	47	.430	.724	.903
6tn Grade No. of Students	21236.556	40	530.914	1.309	.141
7tn Grade No. of Sections	28.316	47	.602	.808	.804
7tn Grade No. of Students	25496.143	42	607.051	1.008	.474
8tn Grade No. of Sections	28.497	47	.606	.733	.894
8tn Grade No. of Students	33674.261	42	801.768	1.154	.284
9tn Grade No. of Sections	33.194	47	.706	.918	.625
9th Grade No. of Students	28523.488	42	679.131	.922	.606
10th Grade No. of Sections	28.727	47	.611	.837	.761
10th Grade No. of Students	32321.759	42	769.566	1.036	.441

Descriptive Statistics of School Environment: In terms of services, about 77.7% of the schools have computer labs, and only 42.4% have science labs, and 13.5% have art studios, see Table 2. On the other side, about half the sample have libraries (50.2%) school library, see Table 2. Further, only 11.8% of the schools have indoor sports facilities, and 27.9% have outdoor sports facilities, see Table 2. In addition, about two-thirds (69%) have food facility, and only 24% have praying facility, see Table 2. About two-thirds (65.5%) have school fencing, and about two-thirds (63.8%) have school gates, see Table 2. Most of the schools (91.7) have rest rooms, see Table 2. School size measured by students' numbers ranged from schools that have less than 50 students (6.2%) to schools that have 500-757 students (3.2% of the sample). However, 61.1% of the schools have less than 150 students, and the most occurring school size is 150-200 students (40.7%). School area ranged from 54-10000 square meters, with the most occurring area of 200-500 square meters (39.9%). About half the sample (48%) has area of less than 500 square meters. Further, 79% of the sample agreed on the schools being located in a quite zone and away from noise. About half of the sample (54.6%) agreed that their schools are well maintained.

Descriptive Statistics of Quantity of Educational Supply: The distribution of gender across the sampled schools was as follows: 41.05% males, 19.65% females, and 39.30% mixed genders, see Figure 2. The education level across the sampled schools was as follows: about 57.64% of schools were elementary, 10.48% secondary, and 31.88% have all levels, see Figure 3

Capacity of Teaching-Organizational Entity of the Supply and Capacity of Quality of Education Supply at the School Level and Other Variables

Capacity of Teaching-Organizational Entity of the Supply: Instructional capacity was assessed with an average of 4 and a tendency of strong agreement; structural agreement was also with an average of 4.1 and a tendency of strong agreement; staff frustration has a tendency of disproval with an average of 2.6; positive classroom environment has a slight tendency of approval with an average of 3.7; caring and support for students has a slight tendency of approval with an average of 4; formalization has a tendency of strong agreement with an average of 4.2; and students control has a strong agreement with an average of 4.2.

Capacity of Quality of Education Supply at the School Level: Perception of existing pedagogy has a slight tendency of approval with an average of 3.8; directing students to choose the right stream also received slight approval with an average of 3.5; and obstacles by the Ministry of Education concentration has a tendency of agreement with an average of 4.0.

Other Variables: Included students attitude with a tendency of slight agreement (M=3.8); teachers attitude with a tendency of agreement (M=3.98); available school

Table 6 anova – eleventh grade stage students input/capacity of quantity of supply over village distance from mafraq city

Variable	Sum of Squares	Df	Mean Square	F	Sig.
Scientific/11th Grade No. of Sections	11.406	47	.243	1.070	.368
Scientific/11th Grade No. of Students	7447.196	26	286.431	.648	.854
Literature/11th Grade No. of Sections	15.266	47	.325	1.282	.127
Literature/11th Grade No. of Students	3801.649	38	100.043	1.162	.316
Computer/11th Grade No. of Sections	3.122	47	.066	.720	.907
Computer/11th Grade No. of Students	4195.667	9	466.185	7.969	.116
Nursing/11th Grade No. of Sections	.984	47	.021	.965	.544
Nursing/11th Grade No. of Students	144.500	1	144.500	.	.
Trade/11th Grade No. of Sections	.266	47	.006	.593	.982
Industrial/11th Grade No. of Sections	.196	47	.004	.936	.593
Agricultural/11th Grade No. of Sections	.138	47	.003	.619	.973
Management/11th Grade No. of Sections	.503	47	.011	.785	.835
Vocational/11th Grade No. of Sections	.552	47	.012	.290	1.000
Vocational/11th Grade No. of Students	182.000	3	60.667	.	.
Beauty/11th Grade No. of Sections	.232	47	.005	.509	.996

services has a slight agreement with M=3.4; and perceived students' performance has a tendency of slight agreement M=3.1.

Education Outputs - Student performance - Learning Efficacy of Perceived Qualitative Performance or Attainment Test Scores of Average Annual in all Subjects

Overall perceived students' performance averaged 3.1 with agreement. Meanwhile, perceived students' performances in all subjects were as follows:

Science ranged from 1-5 with M= 3.2.
Math ranged from 1-5 with M= 2.9.
Physics ranged from 1-5 with M= 2.7.
Chemistry ranged from 1-5 with M= 2.9.
Biology ranged from 1-5 with M= 3.1.
Geology ranged from 1-5 with M= 3.2.
Computer Science ranged from 1-5 with M= 3.4.
Arabic ranged from 1-5 with M= 3.7.
English ranged from 1-5 with M= 2.9.

Relationships with Village Distance from Mafraq City

In order to test the hypothesis that the further schools are located from the central city (Mafraq), the less they offer quality and quantity in the educational environments physically and organizationally the following statistical multi-level analysis of Badia Regions over overall students' performance, quantitative and qualitative inputs of supply, as well as, teaching organization were carried out.

Overall Perceived Performance over Village Distance - Paired Test: Paired test for the perceived overall students' performance over village distance indicated significant effect t = -11.75, see Table 3. Where perceived students performance (overall learning efficacy) has a mean of M = 3.10, and village distance has a mean of M = 29.25.84, see Table 4.

Effect of Overall Perceived Performance by Quantitative Inputs of Supply/Students over Village Distance - ANOVA Test: Further analysis was carried out to investigate the effect of village distance over capacity of quantity of education supply of students using anova test.

Quantitative Inputs of Elementary Stage Supply (Number of Sections and Students) over Village Distance: The test of effect of directorates of village distance over capacity of quantity of education supply at the elementary stage using anova test (Table 5), indicated that numbers of students at the elementary level are affected by village distance for grades of fourth and fifth elementary grades.

Quantitative Inputs of Eleventh Grade Stage Supply over Village Distance: The test of effect of village distance over capacity of quantity of education Supply at the eleventh grade stage using ANOVA test of variance (Table 6) indicated that none of the inputs of eleventh grade are significant.

Quantitative Inputs of Twelfth Grade Stage Supply over Village Distance: The test of effect of village distance over capacity of quantity of education supply at the twelfth grade stage using ANOVA test of varaince (Table 7) indicated that none of the inputs of twelfth grade are significant.

Effect of Overall Perceived Performance by Quantitative Inputs of Supply/Teachers over Village Distance - ANOVA Test: Further analysis was carried out to investigate the effect of village distance over capacity of quantity of education supply of teachers using ANOVA test. The test of effect of village distance over capacity of quantity of education supply of teachers using ANOVA test (Table 8) indicated that numbers of languages teachers is affected by village distance.

Effect of Overall Perceived Performance by Teaching-Organization and Capacity of Quality of Supply and Other

Table 7 anova test – twelfth grade stage students input/capacity of quantity of supply over village distance from mafraq city

Variable	Sum of Squares	df	Mean Square	F	Sig.
Scientific/12th Grade No. of Sections	10.408	46	.226	.908	.641
Scientific/12th Grade No. of Students	6670.509	23	290.022	.539	.908
Literature/12th Grade No. of Sections	14.830	47	.316	1.300	.114
Literature/12th Grade No. of Students	3340.002	37	90.270	1.035	.461
Computer/12th Grade No. of Sections	3.960	47	.084	.961	.549
Computer/12th Grade No. of Students	4724.167	9	524.907	7.472	.124
Nursing/12th Grade No. of Sections	.452	47	.010	.390	1.000
Nursing/12th Grade No. of Students	160.667	2	80.333	.	.
Trade/12th Grade No. of Sections	.079	47	.002	.330	1.000
Industrial/12th Grade No. of Sections	.000	47	.000	.	.
Agricultural/12th Grade No. of Sections	.138	47	.003	.619	.973
Management/12th Grade No. of Sections	.325	47	.007	.752	.875
Vocational/12th Grade No. of Sections	.457	47	.010	.272	1.000
Vocational/12th Grade No. of Students	66.667	2	33.333	.	.
Beauty/12th Grade No. of Sections	.046	47	.001	.184	1.000

Table 8 anova – teachers input/capacity of quantity of supply over village distance from mafraq city

Variable	Sum of Squares	Df	Mean Square	F	Sig.
Religion Number of Teachers	32.331	47	.688	.737	.891
Arabic Number of Teachers	74.918	47	1.594	.732	.896
English Number of Teachers	50.122	47	1.066	.748	.879
Culture Number of Teachers	10.552	47	.225	.782	.839
Math Number of Teachers	42.597	47	.906	.608	.977
Science Number of Teachers	37.144	47	.790	.727	.900
Physics Number of Teachers	14.369	47	.306	.806	.806
Chemistry Number of Teachers	9.702	47	.206	.668	.948
Biology Number of Teachers	13.023	47	.277	1.014	.459
Geology Number of Teachers	7.513	47	.160	1.023	.442
Computer Number of Teachers	21.431	47	.456	.506	.996
Geography Number of Teachers	11.063	47	.235	.455	.999
History Number of Teachers	13.768	47	.293	.834	.765
Arts Number of Teachers	9.129	47	.194	.524	.995
Athleticss Number of Teachers	16.596	47	.353	.811	.798
Music Number of Teachers	.769	47	.016	.580	.985
Languages Number of Teachers	144.521	47	3.075	1.442	.047

Variables over Village Distance - ANOVA Test: Further analysis was carried out to investigate the effect of perceived overall all performance over village distance by teaching-organization and capacity of quality of education supply and other variables using anova test. Results in Table 9 showed a significant effect for structural entity and formalization.

Regression Model for the Significant Attributes Effect of Overall Students Performance over Village Distance: The hypothesis that overall student performance is affected by a set of attributes over village distance was reported significant in Table 10.

Factors that contributed to the regression model in the order of their strong effect are: Available School services, structural entity, languages number of teachers, and third grade number of students, see Table 11.

CONCLUSIONS

Overall perceived performance was affected differently by village ditsance from Central City of Mafraq. Village distance is not associated with any of the elementary grade inputs.Further, village distance is associated with number of students at eleventh grade computer, nursing, and vocational streams; and with number of sections at eleventh grade literature stream. The study showed a strong and negative association with number of students at twelfth grade computer stream; positive association of number of students' vocational stream; and a positive association with number of sections of literature stream. Also, village distance is only associated with number of arts teachers and school education level, and negatively

Table 9 anova test - distribution of perceived students performance/overall learning efficacy over organizational entity, capacity of quality of supply and other variables over village distance from mafraq city

Variable	Sum of Squares	Df	Mean Square	F	Sig.
Perceived Students Performance – Overall Learning Efficacy	20.946	47	.446	.991	.497
Students' Gender	34.306	47	.730	.884	.684
School Education Level	46.539	47	.990	1.219	.180
Instructional	8.622	47	.183	1.293	.119
Structural	17.336	47	.369	1.630	.012
Staff Frustration	49.581	47	1.055	1.324	.099
Positive Classroom Environment	28.144	47	.599	.999	.484
Caring & Support for Students	21.054	47	.448	1.044	.408
Formalization	16.773	47	.357	1.477	.037
Students Control	10.304	47	.219	1.171	.232
Perception of Existing Pedagogy	15.734	47	.335	.908	.643
Directing Students Track	49.821	47	1.060	1.132	.279
Obstacles of Ministry Concentration	23.509	47	.500	.835	.764
Students Attitude	13.408	47	.285	.990	.499
Teachers Attitude	17.018	47	.362	1.280	.129
Available School Services	25.586	47	.544	1.418	.055

Table 10 multivariate tests model - village distance from mafraq city over significant variables

Effect Wilks' Lambda	Value	F	Hypothesis df	Error df	Sig.
Intercept	.008	916.773	8.000	62.000	.000
Village Distance from Mafraq City	.019	1.227	272.000	500.955	.026

Table 11 tests of between-subjects effects - village distance from mafraq city over significant variables

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	**Structural**	14.721[a]	34	.433	1.787	.021
	Staff Frustration	27.043[b]	34	.795	.949	.557
	Formalization	7.468[c]	34	.220	.757	.812
	Available School Services	21.219[d]	34	.624	1.810	.019
	2nd Grade No. of Students	15923.450[e]	34	468.337	1.335	.154
	3rd Grade No. of Students	13175.737[f]	34	387.522	1.622	.045
	4th Grade No. of Students	12945.420[g]	34	380.748	1.326	.160
	Languages Number of Teachers	116.355[n]	34	3.422	1.755	.024
Intercept	**Structural**	987.373	1	987.373	4075.525	.000
	Staff Frustration	425.628	1	425.628	507.718	.000
	Formalization	1061.689	1	1061.689	3658.131	.000
	Available School Services	658.463	1	658.463	1910.145	.000
	2nd Grade No. of Students	31726.732	1	31726.732	90.427	.000
	3rd Grade No. of Students	24856.863	1	24856.863	104.053	.000
	4th Grade No. of Students	21976.610	1	21976.610	76.560	.000
	Languages Number of Teachers	43.110	1	43.110	22.111	.000
Total	**Structural**	1794.194	104			
	Staff Frustration	798.234	104			
	Formalization	1876.361	104			
	Available School Services	1216.914	104			
	2nd Grade No. of Students	116327.000	104			
	3rd Grade No. of Students	89419.000	104			
	4th Grade No. of Students	87768.000	104			
	Languages Number of Teachers	298.000	104			

associated with teachers' attitude and available school services.

In terms of capacity of quantity of education supply at the elementary level effect on perceived overall performance over village distance, results indicated that numbers of students at the elementary level from of fourth and fifth grades are affected by village distance. In terms of capacity of quantity of education supply at the eleventh and twelfth grade levels effect on perceived overall performance over village distance, results

indicated that none of the eleventh and twelfth grade level inputs are affected by village distance. In terms of capacity of quantity of education supply of teacher's effect on perceived overall performance over village distance, results indicated that only numbers of languages teachers are affected.

In terms of teaching-organization and capacity of quality of education supply and other variables effect on perceived overall performance over village distance, results indicated that structural entity and formalization are affected by village distance which supports Evans et al. (1991), Berglund and Lindvall (1986), and Cohen et al. (1986). Overall student performance is affected by a set of attributes over village distance was reported significant. Factors that contributed to the regression model in the order of their strong effect are: available school services; structural entity; languages number of teachers; and third grade number of students.

Inputs strength is characterized by the availability of all streams; teachers specialties, capacity, skills, and cooperation; small students numbers; and available electronic pedagogy. However, input weaknesses: dispersed school from residential settings.

RECOMMENDATIONS

It is fruitful to conceptualize social environment of a school from a multiple perspective, including the instructional, structural, human resource, political, and cultural aspects, and to study its relations with the performance of teachers and students.Policy makers should not be mainly concerned about the inputs of schooling (finance, curriculum, and student allocation), but also they should pay attention to the internal process of the school, such as instructional approaches, school structure, etc. Major issues that should be considered by education policy makers include:

Emphasis of joining schools together, as it seems number of students as well as section are vital for output and more so than number of teachers. Many schools are suffering, especially in the Northeast Badia Region, from small number of students in geographically dispersed villages. It is healthier to increase numbers of students to a range of 20-30 per section for completion among students.

Number of teachers and their major seem to be sufficient and more importantly are their attitude. This suggests working more on enhancing the teachers' attitude, as their qualifications seem sufficient but they lack inspiration and incentives and it seems to be a worthwhile issue of investment by policy maker of higher education.

Physical infrastructure that supports students' activity seems vital and affects student's performance positively. Therefore, it is worth to invest in sports and arts facilities, and the like.

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