



# The School's Environment and its Relationship to the Student Involvement in School Extra-Curricular Activities

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## ABSTRACT

This study aims to examine the relationship of school environment with the participation of students in extra-curricular activities in schools in the State of Johor. This quantitative research using survey method through a questionnaire. A total of 225 teachers Advisor co-curricular activities were randomly selected from 21 schools. Survey instruments used in this study may be modified based on the "School-Level Environment Questionnaire" to assess the school environment and the "National Survey of Student Engagement 2011" to measure student involvement in extra-curricular activities. Correlation analysis shows there is a significant relationship ( $r = 0.294$ ,  $p = 0.00$ ) between the school environment with the participation of students in extra-curricular activities. The findings indicate that the school environment is a significant factor in improving student involvement in extra-curricular activities.

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## Introduction

Extra-curricular activities are the outdoor activities or work-oriented education that impulse provides a learning experience for the students and an extension of the teaching and learning process in the classroom. The curriculum is an educational experience and activities undertaken outside or in the classroom (Nor Azah 2007). It is important to help complement and strengthen the learning process in the classroom, and can show changes in the behavior and influence well-being. Extra-curricular activities are obviously can add significant experience and skills to the students (Reaves & et al. 2010).

Implementation of extra-curricular activities aimed at developing individual potential to include various aspects including the expansion of students' experience in a particular field, the formation of personality and discipline, improved personal health and well-being, skills enhancement and and communications (Omarin 2007). Students are required to participate in three types of curriculum areas namely, clubs and associations, sports and games, and uniformed units. Professional circular Number 1/1985 dated 2 January 1985, each student either from Government or non-government schools are required to take at least one uniformed bodies team activities, association or club activity and one activity or game. Marjohan and Mohd Sofian (2007), stating although participation in extra-curricular activities is compulsory in Malaysia, they still have the opportunity to select the type of activity that would like to participated in school.

Analysis of the curricular marks ten percent (10%) form five student's states of Johore 2010, which amounted 67283 people, showed that students get marks 4 marks 5 and followed a whole. Of the total number of students, 44867 students (66.68%) who scored 5 and under. The remainder

was 22416 (33.32%) only that scored 6 or above. This analysis can be seen in Table 1.

Student involvement in extra-curricular activities are important to ensure that the purpose of the activities and curriculum goals can be achieved. However, data curriculum scores ten percent (10%) of the State of Johore 2010 as a whole show the involvement of students is simple. Although many of the studies that have been conducted relating to the implementation of the curriculum in schools, yet there are studies done specifically to review the relationship with the school environment students. Involvement in extra-curricular activities. In this regard, studies should be carried out to identify school student involvement in extra-curricular activities. In particular, this study is to identify the relationship of environmental factors on student involvement in extra-curricular activities in schools. Previous studies about the school environment a lot review of learning and academic achievement.

### The Purpose of the Study

This study aimed to see the relationship with the school environment students' involvement in extra-curricular activities. In addition, it also aims to identify the school environment in the implementation of extra-curricular activities, as well as identify the level of student involvement in extra-curricular activities.

### Student Participation in Co-Curricular

Involvement means an act or engage in anything. Kuh (1992), clarify the involvement of socialization is the process of understanding and learning about the challenges, demands, requirements, benefits and rewards in a student environment. While Leithwood and Jantzi (1999) define the involvement of two dimensions, namely affective and behavioral problems.

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**Table 1. 10% of students score analysis form 5 2010 State of Johore**

Marks (10%)	Number Of Students	Percent (%)
0	620	0.92
1	2920	4.34
2	6902	10.26
3	8706	12.94
4	12791	19.01
5	12928	19.21
6	12592	18.71
7	7324	10.89
8	2407	3.58
9	92	0.14
10	1	0.00
67283		100.00

They also have the opportunity to learn the culture and customs of a particular situation. Through involvement in co-curricular activities, students can become active participants and not just be a passive observer.

Russell et al. (2005) stated the involvement is an energy in action, which is something that connects one with the activity. This involvement was disclosed consisted of three forms, namely behavioral, emotional and cognitive. Fredericks, et al. (2004) explains about the involvement of students in terms of emotional, cognitive and behavior. The involvement of students in terms of emotion, which are whether positive or students showed a negative reaction to the teacher, classmate, academic and school. Chapman (2003), the involvement of students is the students' willingness to participate in routine activities in school, whether cognitive involvement, behavior and effective student engagement indicators in specific learning assignments. Yazzie-Mintz (2007) also explained that the involvement of students seen from three aspects which are cognitive, intellectual or academic.

Based on the theory of involvement Astin (1984), student involvement can be measured in quantitative based on how many hours students participate and attend any meetings. Student involvement can also be measured in qualitative criteria, taking into account the time students engage in any activity in his life. Next Astin (1984) has given the purposes of involvement as a physical and psychological energy rate used by the student in touch with academic experience. Mohanaraju (2012), stated that his interest in the pupils of extra-curricular activities which included uniformed bodies showed interested groups are at a moderate level. Based on the findings, the influence of the family support co-curricular involvement of school pupils' self-evident human skills within the group is not interested in comparing with group interested.

**School Environment in the Implementation of Extra-Curricular Activities**

School environment can be defined as the set of internal features that distinguish a school with other schools, and influence the behavior of its members, i.e., staff and students (Hoy & Miskel 1987). Fraser (1986) notes that the school environment is much broader and is not limited to the classroom. Classroom climate is confined to the relationship between students and students and between students and teachers within the boundaries of the room. Jarzabkowski (2002) states that the school environment means all the

conditions, resources and activities mutually integrated directly or indirectly affects the functioning of the school. The school environment refers to the physical and psychosocial environment can set the stage for a positive perception of teachers and students of the school. Odogwu et al. (2011) noted that the school environment as a social environment (teacher-student relationship, the relationship with other teachers and school principals), affective environment (gender equality, the sense of teacher effectiveness and independence of staff) and the academic environment (teacher professional development, resources and equipment and working pressure). Tableman (2004) has identified four aspects of the school environment, which are :

- i. The physical environment-friendly and Conducive to learning
- ii. Social environment that encourages Communication and interaction
- iii. Effective environment that promotes a Sense of belonging and self-esteem
- iv. An academic environment that promotes learning and self-fulfillment

The school environment supports it is important to improve the management level curriculum by teacher advisors and increase student involvement in extra-curricular activities. Some aspects of the school environment can affect teachers' planning advisors to guide and teach and perform their intention to increase the effectiveness of co-curricular activities. Various factors in the school environment, such as a combination of teachers and professional interests, has been found to affect the practice of teaching, which in turn influences the attitude and student achievement (Webster & Fisher 2003). The school environment is often conceptualized as a psychosocial context in which teachers work and teach (Fisher & Fraser 1991). Reviewed by Templeton and Johnson (1998) to evaluate the school environment in urban schools to explain what the teacher felt the need to develop a safer school environment. Responses to the questionnaire within the School Level (Leq) showed that teachers want more support for students, more resources and work less stressful.

Other studies that have been done in connection with the school environment is the study by Huang et al. (2009), related to the perception of science teachers in the school environment in terms of gender differences. Review by Aldridge, Laugksch and Fraser (2006)) on the stage environment school and learning outcomes-based education in

South Africa, while Van Ryzin study (2011) on the effects of the adolescents' perceptions of the school environment, involvement in learning, expectations and academic achievement.

The studies that have been done in Malaysia also prove that the school environment with significant student involvement in extra-curricular activities. Review by Mohd Jafius (2008) found that structural factors such as lack of facilities, equipment, time, money and information, are the main factors that hinder student participation in extra-curricular sports activities. There Saiful (2008), found that attitudes toward academic and extra-curricular activities at a low level. Economic and environmental factors also are at a moderate level. All four of these factors does not show any difference in the students' participation in extra-curricular activities in a study that she conducted. Aminudin (2004), carrying out a study to see how far the active involvement of students in extra-curricular activities affect the level of student achievement in academics. His research melinatkan some aspects of which level of involvement, attitudes towards the planned activities, time management, interests and responsibilities of students for extra-curricular activities as well as their academic achievement. Through its research, the students are active in extra-curricular activities also have a good achievement in academics. Activities that are not accompanied by a negative impact on their academic performance.

Marjohan and Mohd Sofian (2007), a study related to intrinsic and extrinsic motivation and interest accrued students in compulsory extra-curricular activities. They also study the implications of after-school activities on students' academic performance. The results show that most of the students taking part in after-school programs because they think it is important to acquire new knowledge and also for reasons of self-improvement. What is clear, according to the study's main involvement is due to the intrinsic interest of the students themselves even extra-curricular activities are required.

There are also studies abroad that his findings showed that the school environment affecting student involvement. Crowder (2010), student engagement survey has found the study to first understand how teachers make use of certain facilities and the conditions of the school and the characteristics of the design to increase student engagement in learning. D Darling et al. (2005) also carry out their studies of extra-curricular activities and their impact on the various aspects of development, including academic achievement. The results showed that students who participate in extra-curricular activities in schools practicing good personal values, aspirations and attitudes of good academic compared to students who were not involved in any extra-curricular activities in school.

### Methodology

This study is a quantitative survey method. The questionnaire used in this study was to examine the relationship the school environment and student involvement in extracurricular activities. It is used to collect data from a small sample to make generalizations about the larger population. Dimensional construct containing the school environment relationships, personal development and implementation of system changes that have been modified from the School-Level Environment Questionnaire (SLEQ) developed by Rentoul & Fraser (1983). Whereas construct student involvement in extra-curricular activities have been translated and adapted from the National Survey of Student

Engagement 2011 The College Student Report. Any questions to measure the school environment and student participation in this study using a five-point Likert scale. Total population respondents in 21 schools selected were 730 people. A total of 245 teachers was randomly selected in proportion to the number of teachers in each school as a sample. Out of this number, only 225 respondents answered the survey questionnaire. Test the reliability of the instrument or questionnaire carried out using Cronbach's alpha coefficient. Values obtained for 50 items of school environmental factors is 0.79. For the 36-item questionnaire showed that students' involvement Cronbach alpha value is 0.89. The values of Cronbach alpha readings indicate the reliability of the questionnaire is suitable and can be used as a research tool. According to Guilford's Rule of Thumb (Guilford, 1973), an alpha value of 0.9 is the level of effort alpha value of 0.8 is in a good level. The alpha value of 0.6 is the level in question, but still acceptable (Ary et al. 2002). Generally, this instrument has good reliability and is at an acceptable level.

Descriptive statistics were used to describe the dependent variable and independent variables including frequency, percentage, mean and standard deviation. Inferential statistics to describe the dependent variable and independent variables using Pearson correlation analysis. The statistical analysis used was mean and standard deviation. The mean value is used to determine the central tendency (central tendency) data collected. The standard deviation value is used to determine the measure of dispersion (variability) data are available.

### Findings

The study is divided into three parts which determine the level of student involvement in extracurricular activities. Determine both the level of the school environment and determine the correlation between the school environment and student involvement in extracurricular activities at school.

#### Student Participation in the Activities of the Curriculum

Data analysis of student involvement in extra-curricular activities in schools based on a study of teacher respondents in Table 2. The data shows respondents' perceptions of student involvement in extracurricular activities is moderate (mean = 3.17, SD = .58), while respondents' perceptions of student involvement in activities clubs and associations are moderate (mean = 13.3, sd = .6). Analysis of the data also showed that student participation in activities uniformed bodies is simple (mean = 3.24, sd = .62) and respondents' perceptions of students' participation in sports activities and games are also simply (mean = 3.22, sd = .61).

#### Environmental School Curriculum in Execution of Activities

The findings were analyzed for the school environment based on a study of teacher respondents are shown in Table 3. Overall, respondents' perceptions of the school environment is moderate (mean = 3.18, sd = .202). Respondents' perceptions of the school environment in the dimension of the relationship is moderate (mean = 3.46, sd = .35). Respondents' perceptions of the school environment in the dimension of personal development too simple (mean = 3.43, sd = .34). Respondents' perceptions of the school environment on the dimensions of the system is also simple maintenance and modification (Mean = 2.98, SD = .17).

#### Relations with Environmental School Student Participation in the Activities Curriculum

Relations student involvement in extra-curricular activities with the school environment was tested with the Pearson correlation moment.

**Table 2. Student participation in extracurricular Activities**

Variable	Mean	Sp
Student involvement	3.17	.59
Clubs / Associations	3.13	.6
Uniformed	3.24	.62
Sports Games	3.22	.61

**Table 3. Implementation of extra-curricular activities the school Environment**

Variables	Mean	Sp
School of Enviromental	3.18	.20
Relations	3.46	.35
Personal Development	3.43	.34
System Maintenance and Changes	2.98	.17

**Table 4. Relationship school environment with students' participation in extracurricular activities**

Variables	Correlation (r)	Significantly (p)
School of Environmental	0.292	0.00
Relations	0.291	0.00
Personal Development	0.213	0.00
Sistem Penyelenggaraan dan Perubahan	0.193	0.00

The moment Pearson correlation analysis was found to be as given in Table 4. The results show there is a positive relationship and a significant weak ( $r = 0.292$ ,  $p = 0.00$ ) between student involvement in extra-curricular activities with the school environment. The analysis also showed that there was a weak positive and significant correlation dimension ( $r = 0.291$ ,  $p = 0.00$ ), the dimensions of personal development ( $r = 0.213$ ,  $p = 0.00$ ), and the dimensions of the system maintenance and change ( $r = 0.193$ ,  $p = 0.00$ ) with student involvement in extracurricular activities. This rating indicates the dependent variable has a significant positive relationship with all dimensions of independent variables, namely when the school environment is getting better or favorable, then the involvement of students in the school curriculum will also increase.

#### Discussion

Referring to the study was conducted, the perception of teachers on student involvement in extra-curricular activities as a whole is at a moderate level. This shows that most students are not interested in getting involved or lack the commitment to extra-curricular activities run by the school. The results of this study confirmed the findings of a study conducted by Mohanaraju (2012) found that students who are interested in participating in co-curricular activities are uniformed bodies at a moderate level. If this situation is viewed from the aspect of students' self-motivation, a study by Marjohan and Mohd Sofian (2007) have shown that students who participate in extracurricular activities after school hours is driven by the intrinsic interest of the students, which is to obtain new knowledge and to improve themselves. Their involvement in extra-curricular activities is not simply the awareness that it is something that must be done.

This situation shows that the recommendation by the Ministry of Education requires the student to participate in extra-curricular activities as specified in the Curriculum Management, Ministry of Education (2009) items 5.1 through SPI No. 1/1985 has not been given serious attention by the students it is important for every student. Rahman (2008), said the impact of student participation in co-curricular activities is in addition to being able to contribute their thoughts and ideas during extra-curricular activities, students can have effective

communication skills. Students also have the opportunity to hone and develop their talents and potential. Ab. Halim (2004) also states that students can build a sense of belonging, bold and confident and assertive through extra-curricular activities that involve them. This fact is evidenced by a study Darling et. al (2005), who found that students who participate in extra-curricular activities have aspirations and higher academic achievement than students who were not involved in any extra-curricular activities. Blomfield and Barber (2010), also said the results of the study that the student participation in co-curricular activities have a positive impact on academic performance and have higher aspirations to university. The findings also show that teachers' perception of the school environment as a whole is simple. Mohd Jaflus (2008), stated that the factor structure of the school is the main factor that prevented the students' participation in extra-curricular activities followed by a factor of students' intrapersonal and interpersonal. He studied structural factors is included in school infrastructure and equipment, time and budget implementation. Intrapersonal factors also refers to internal factors such as students' relationships between students or students with their teacher. Interpersonal factors refer to external factors that affect students, such as pressure, cultures, abilities and skills. All three dimensions of the school environment play a role affect actual student involvement in extracurricular activities.

There is a weak positive correlation and significant between the school environment and student involvement in extracurricular activities through this study. This study shows that respondents believe that environmental factors influence student participation in school extra-curricular activities. However, there may be a more dominant factor that may be associated with a moderate level of involvement. However, environmental factors are good, suitable and build and motivate students to participate in school activities should be taken seriously.

Referring to this study, a favorable environment in terms of the relationship between administrators and teachers, teachers and teacher or teachers and students need to be improved in addition to developing the professional level of teachers in extra-curricular. Meanwhile, the school

administration must also improve system maintenance and change through the freedom of employees or staff, increase teachers' participation in decision-making, encouraging teachers to be more innovative, to provide adequate resources or facilities for extra-curricular activities and thus reduce pressure on teachers to perform extra-curricular activities at the school. This was due to a good school environment can influence the practice of teaching, thereby influencing attitudes toward a better and boost student achievement in school (Webster & Fisher 2003).

### Conclusion

The school environment can attract good students to engage in extracurricular activities at school. All parties should understand that this is an important aspect to be addressed by the administrators and teachers at the school, officials at the District Education Office, District Education Office, the next quarters in the Ministry of Education. The school environment should be considered, including aspects of student support and the support of teachers, teachers' professional interests, the freedom of teachers and the participation of teachers in decision-making, the teacher and the school to innovate, resources or adequate facilities, and lack of job stress disposition curriculum. Finally, the school environment can have a positive effect on student involvement in extracurricular activities. All parties should try to improve and enhance the school environment in order to attract further increase student involvement in extracurricular activities.

### References

- Ab. Alim Abdul Rahim. 2004. *Pengurusan Gerak Kerja Ko-kurikulum*. Oxford Fajar.
- Aldridge, J.M., Laugksch, R.C. & Fraser, B.J. 2006. School-level environment and outcomes-based education in South Africa. *Journal Learning Environment Reserchs*, 9: 23–147.
- Aminudin Abdul Rahman. 2004. *Penglibatan Pelajar Secara Aktif dalam Aktiviti Ko-kurikulum dan Kesannya ke Atas Pencapaian Akademik*. Tesis Sarjana Pendidikan. Universiti Teknologi Malaysia, Skudai.
- Ary, D., Jacobs, L.C. & Razavieh, A. 2002. *Introduction to Research in Education*. Boston: Wadsworth/Thomson Learning.
- Astin, A. 1984. *Student Involvement: A Development Theory for Higher Educations Graduate School of Educations*. Los Angeles: University of California.
- Blomfield, C. & Barber B. 2010. Australian adolescents' extracurricular activity participation and positive development: Is the relationship mediated by peer attributes?. *Australian Journal of Educational & Developmental Psychology* 10: 114-128.
- Chapman, E. 2003. Alternative approaches to assessing student engagement rates *Practical Assessment, Research and Evaluation* 8 (13). Retrieved April 19, 2006, from <http://PAREonline.net/getvn.asp?v=8&n=13> [28 Ogos 2012]
- Crowder P.L. 2010. *The Influence of the Outdoor Learning Environment on Student Engagement*. Dissertation doctor of educational leadership.
- Darling, N., Caldwell, L.L. & Smith, R. 2005. Participation in school based extracurricular activities and adolescent adjustment. *Journal of Leisure Research* 37 (1): 51-76.
- Fisher, D.L. & Fraser, B.J. 1991b. Validity and use of the school-level environment. *Journal of Classroom Interaction*, 26 (2): 13–18
- Fraser, B. J. 1986. *Classroom environment*. Croom Helm, London.
- 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: 59-109.
- Guildford, J.P. (1973). *Foundamental Statistics in Psychology and Education*. 5th Edition. New york: McGraw-Hill.
- Huang, Shwu-yong L. & Fraser B.J. 2009. science teachers' perceptions of the school environment: Gender differences. *Journal of Research in Science Teaching* 46(4): 404-420.
- Hoy, W.K. & Miskel, C.G. 1987. *Educational Administration: Theory, Research and Practice*. 3rd Edition. Random House, New York.
- Jarzabkowski L.M. 2002. The social dimensions of teacher collegiality *Journal of Educational Enquiry* 3(2): 1-20.
- Kementerian Pelajaran Malaysia. 2009. *Buku Panduan Pengurusan Gerak Kerja Kokurikulum Sekolah Menengah*. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Kuh, G.D. 1992. What do we do now? Implication for educations of how colleges affects students. *American Educational Research Journal* 30(2): 277-304
- Leithwood, K. & Jantzi, D. (1999). The relative effects of principal and teacher sources of leadership on student engagement with school. *Educational Administration Quarterly*, 35 (5): 679-706.
- Marjohan Jamalis & Mohd Sofian Omar Fauze. 2007. Developing human value through extra curricular activities. *The Journal of Human Resource and Adult Learning* 3(1):
- Mohanaraju Annamalai. 2012, Pengaruh Sokongan Keluarga dalam Penglibatan Ko-kurikulum Sekolah terhadap Pencapaian Kemahiran Insaniah Murid. Seminar Kebangsaan Majlis Dekan Pendidikan IPTA.
- Mohd Jaflus Bahari. 2008. Faktor-faktor yang menghalang penglibatan pelajar dalam kegiatan kokurikulum sukan di kalangan pelajar sekolah menengah kebangsaan daerah Seremban. <http://www.ipislam.edu.my/uploaded/file/jaflus.pdf> [18 Januari 2011].
- Nor Azah Azman. 2007. Peranan Pengetua Sebagai Pengurus Ko-kurikulum di Sekolah Menengah Daerah Mersing. Disretasi Sarjana Pengurusan dan Pentadbiran. Fakulti Pendidikan. Universiti Teknologi Malaysia.
- Odogwu, H., Adeyemo, S.A., Jimoh, J.A., Yewonde, R.O. 2011. Science, mathematics and technology teachers' perception of school environment: Gender differences. *Multicultural Education & Technology Journal* 5(4): 274-287.
- Omardin Ashaari. 2007. *Pengurusan Sekolah: Satu Panduan Lengkap*. Kuala Lumpur. Utusan Publication & Distribution Sdn. Bhd.
- Rahman Abdul Wahab. 2008, *Panduan Pengurusan Ko-kurikulum Sekolah*. Edisi Semakan. Klang, Selangor: Er-Nur Sdn. Bhd.
- Rentoul, A.J. & Fraser, B.J. 1983. Development of a school-level environment questionnaire. *Journal of Educational Administration* 21: 21-37.
- Reaves, W.D., Hinson, A.R. & Marchant, A.M. 2010. Benefits and costs of faculty participation in extra- and co-curricular activities. *NACTA Journal*: 54-60.
- Russell, V.J., Ainley, M. & Frydenberg, E. 2005. *Schooling Issues Digest: Student Motivation and Engagement*. Retrieved November 9, 2005, [http://www.dest.gov.au/sectors/school\\_education/publications\\_resources/schooling\\_issues\\_digest/schooling\\_issues\\_digest\\_motivation\\_engagement.htm](http://www.dest.gov.au/sectors/school_education/publications_resources/schooling_issues_digest/schooling_issues_digest_motivation_engagement.htm) [8 September 2011].
- Saiful Adli Mansor. 2008. Faktor-faktor yang Mempengaruhi Penglibatan Pelajar Sekolah dalam Aktiviti Ko-kurikulum.

- Kertas Projek Sarjana Sains (Pengurusan), Universiti Tun Hussein Onn, Batu Pahat.
- Tableman, B. 2004. School climate and learning. *Best Practice Beliefs* 31: 1-10.
- Templeton, R.A & Johnson, C.E. 1998. Making the School environment safe: Red rose's formula. *Learning Environments Research*, 1: 35-57.
- The National Survey of Student Engagement. 2011. [http://nsse.iub.edu/pdf/NSSE2011\\_US\\_English\\_paper.pdf](http://nsse.iub.edu/pdf/NSSE2011_US_English_paper.pdf)
- Unit Kokurikulum Jabatan Pelajaran Selangor. 2011. *Analisis Markah 10% Pelajar Tingkatan Lima 2010 Negeri Selangor*. Shah Alam Selangor.
- Van Ryzin, M.J. 2011. Protective factors at school: Reciprocal effects among adolescents' perceptions of the school environment, engagement in learning and hope. *Journal Youth Adolescence* 40: 1568-1580.
- Webster, B.J. & Fisher, D.L. 2003. School level environment and student outcomes in mathematics. *Learning Environment Research* 6: 309-326.
- Yazzie-Mintz, E. (2007). Voices of students on engagement: A report on the 2006 High School Survey of Student Engagement. Bloomington: Center for Evaluation & Education Policy, Indiana University. Retrieved January 18, 2008, [http://ceep.indiana.edu/hssse/pdf/HSSSE\\_2006\\_Report.pdf](http://ceep.indiana.edu/hssse/pdf/HSSSE_2006_Report.pdf) [20 Ogos 2012]
- Zeichner, K. 1986. The ecology of field experience: toward an understanding of the role of field experiences in teacher development. In. Tajuk buku, edited by Habermun, M & Backus, J.M. *Advances in Teacher Education* 3: 94-117.
- Zulkafli Mansor. 1997. Hubungan antara Faktor Sekolah dengan Penglibatan Ko-kurikulum di Kalangan Pelajar. Kertas Projek. Universiti Utara Malaysia.