Encouraging lifelong learning through student-centred learning approaches in a Malaysian teacher education programme

Tengku Sarina Aini Tengku Kasim  
Auckland University of Technology  
Auckland, New Zealand  
E-mail: dtc7350@aut.ac.nz

Dale Furbish  
Auckland University of Technology  
Auckland, New Zealand  
E-mail: dale.furbish@aut.ac.nz

Abstract

Student-centred learning approaches employ activities that are intended to assist students to construct their own understandings and develop skills relevant to problem solving. These approaches are intended to promote development of learning skills, knowledge, attitudes and competencies for lifelong learning. In the student-centred environments, teachers relinquish being the main actor in the classroom for a facilitator’s role. Students become active agents in the classroom where they learn how to assimilate and accommodate new information and to build new knowledge based on existing knowledge. This paper examines student-centred learning models as an alternative to traditional teacher-centred learning models. The report will present preliminary results of a case study that investigated the use of student-centred approaches at a Malaysian university teacher education programme. The qualitative approach examined teaching and learning from both the lecturers’ and students’ points of view. The results supported the notion of student-centred learning in educating students toward the direction of lifelong learning development. The infusion of student-centred learning into courses in the teacher education programme provides students with opportunities to gain skills and knowledge needed to become teachers who contribute to a more lifelong learning in their classrooms. There is evidence from the study that student-centred learning can nurture the students towards greater intrinsic motivated, self-expression and independence in their learning patterns and hence develop their lifelong learning process.

Keywords: Teacher education, lifelong learning, student-centred learning, qualitative research

Introduction

Recent Malaysian Ministry of Education policies have required the introduction of student-centred learning approaches for secondary teacher training programmes. These policies are substantially affecting how teacher education programmes throughout the country are being conducted. The approach to teacher training is no less important than the outcome of encouraging lifelong learning. Teacher education programmes can be transformative for bring about behavioural and attitudinal changes in their students. Thus, in order to empower education students to assume responsibility for engaging in lifelong learning, these students should be at the centre of learning. Student-centred learning approaches are intended to motivate lifelong learning, strengthen self-discipline, awaken curiosity, and encourage creative in people of all ages (Ferguson, 1980). Lifelong learning is not simply the extension of the learning period but also signifies a paradigm shift (Kuhn, 1996). Teaching that requires a shift in focus from knowledge content to the learners’ engagement supports the formation of lifelong learning competencies. Learning is viewed as an interactive process for the learner, who needs to be an active agent in the act of learning and knowledge construction. A hallmark of student-centred approaches is the building of capacity for learners to use and engage knowledge.

In recent years, there has been an increasing interest in student-centred approaches. Researchers and practitioners have highlighted various aspects of student-centred learning. The first perspective emphasizes students’ autonomy to actively seek out and construct meaning from information and previous experience. Students are no longer passive recipients of knowledge, but have responsibility
towards their own learning (Gibbs, 1992; Griffiths, Oates, & Lockyer, 2007). The second perspective defines student-centred as a shift from didactic teaching to a facilitative approach (Cornelius-White, 2007; Rogers & Freiberg, 1994; Singer & Moscovici, 2008). According to this viewpoint, students’ learning should be facilitated to meet their needs, abilities and personal characteristics. Teachers are viewed as facilitators who clarify, stimulate and enhance students’ insights and ideas. A teacher’s role changes from that of the sole authority and a ‘sage on the stage’ to that of a facilitator and a ‘guide at the side’ (Singer & Moscovici, 2008). Student-centred approaches create an environment conducive to lifelong learning whereby students become active learners who engage in constructing knowledge and information, rather than being passive recipients (Duffy & Jonassen; 1992; Kember, 1997; Piaget, 1970; Vygotsky, 1978).

The theoretical perspective of student-centred learning approaches rests upon the Constructivist Theories of John Dewey (1938), Jean Piaget (1970), and Lev Vygotsky (1978). With the advent of constructivist theories, the metaphor for the mind has gradually changed from ‘container’ to ‘constructor’ (Earl & Katz, 2000). These theories suggest that learning involves “constructing, creating, inventing and developing our own knowledge” (Marlowe & Page, 1998, p. 10) and students do not passively acquire or absorb a new knowledge (Brooks & Brooks, 1999; Kember, 1997). Constructivism proposes that new information is actively assimilated into previous knowledge structures while simultaneously changed these structures. Constructivism contrasts with traditional pedagogy that conceptualised a learner’s mind as a container that was filled by the process of ‘acquisition’ or ‘transmission’ of knowledge (Earl & Katz, 2000). A teacher was regarded as the source of expert knowledge who was entirely responsible for selecting what knowledge and skills the students are expected to learn, how and in what sequence they are to be learned, and at what pace they are to be delivered (Pratt, 1998). The traditional learning mode tends to be passive and the learners play little part in their learning process.

Malaysian education system

Reforms in Malaysian education have been ongoing since the 1980s. For example, the New Primary School Curriculum had been progressively introduced from 1982 to 1988. Then in 1988, the Integrated Secondary School Curriculum was introduced as a continuation of the New Curriculum Primary School to achieve the aims of the new National Education Philosophy. The introduction of this curriculum, followed by the upgrading of the New Curriculum Primary School into the Integrated Curriculum Primary School in 1994, was significant for translating the notion of the National Philosophy of Education into practice in secondary and primary education.

The Malaysian National Education Philosophy was introduced in 1988. The philosophy incorporates the ideals of a national citizenry whose members are wholesome and balanced in all dimensions of human development, as well as being able to contribute to the well being of fellow members and to the nation (Ministry of Education, 1993). The formulation of this philosophy was recognised as a significant step in the reformation of the education system in Malaysia. The philosophy contains explicit guidelines for teaching and learning approaches in the Integrated Secondary School Curriculum. This policy stated that the effectiveness of teaching and learning in the secondary school classroom is dependent on teachers’ instructional approaches. Chapter 5 (Ministry of Education, 1990, pp. 37-58) of the document prescribes that teachers are expected to practice more student-centred rather than teacher-centred approaches. The Ministry translates the national education policy into education plans, programmes and projects congruent with national aspirations and objectives, and also formulates guidelines for the implementation of these programmes and projects. The principles that were established by the National Education Philosophy should be understood by teachers in order to translate the philosophy into classroom practice, in both primary and secondary schools. Although the National Education Philosophy did not specifically address educational approaches at the tertiary level, it is apparent that education
students will be best prepared to use student-centred approaches if they themselves experience a student-centred learning during their university studies.

**An overview of teacher education in Malaysia**

The evolution of teacher education in Malaysia is closely related to the development of the national education system. The recruitment of teacher trainees, the length of training, and the content and method of training tend to vary with the changing needs of the school system. Teacher education programmes have been geared towards the professional, academic, and personal development of the students. Formal teacher education programmes were introduced in Malaysia by the British in the early 1900s. Initially, teacher training concentrated on preparing teachers to teach in primary schools. Training for teachers to teach at secondary schools was conducted by colleges located in Britain as Malaysia was a British colony. Secondary teacher training in Malaysia started in the 1960s after the establishment of the University of Malaya in 1949 and other public universities in the late 1960s.

The main goal of teacher education programmes is to ensure that all schools have teachers with the skills and knowledge needed to enable students to learn. Thus, teacher training should provide qualified teachers for every student. Teacher education programmes are entrusted with the responsibility for training future teachers in line with the National Education Philosophy, the Philosophy of Teacher Education, the policies, plans and projects that have been introduced to teacher education programmes in Malaysia. The Philosophy of Teacher Education in Malaysia is consistent with the National Education Philosophy, which emphasizes holistic individual development. It aims to produce:

> **The teacher, who is** noble in character, progressive and scientific in outlook, committed to uphold the aspirations of the nation, and cherishes the national cultural heritage, ensures the development of the individual and the preservation of a united, democratic, progressive and disciplined society**


Furthermore, with the advent of constructivist learning theories, there was a need to shift from “robotic learning” and “memory-based learning” to learning for understanding. The teaching strategies emphasised experiential learning such as discussion, demonstration, and group learning. The goal of teacher training is to prepare teachers who function effectively within the new context and demands. However, the shift in focus on learning from the conventional to the constructivist perspective has presented Malaysian educators with serious challenges. The traditional “chalk and talk” methods of teaching were used for decades in Malaysian educational system and are not easily abandoned. The literature reveals that the preferred teaching methods in most classrooms of Malaysian secondary schools were teacher-centred approaches or a mixture of both student-centred and teacher-centred (Fauziah, Parilah, & Samsuddeen, 2005; Norzila, Fauziah, & Parilah, 2007). This outcome indicated that classroom learning environments were far from what is envisioned in the National Education Philosophy by the Ministry of Education.

**Rationale of the study**

The roles and functions of teacher education programmes have a strong relationship with the national school system in Malaysia. Teacher education programmes are responsible for training secondary school teachers who are equipped to implement national education policies. With the significant expectations placed on teacher education programmes by the Malaysian government, how teacher education students learn is an intriguing question for education researchers. Many believe that the learning experiences of education students have a significant relationship to their future teaching styles because “teachers teach the way they learned” (Dunn & Dunn, 1979, p. 241). This circumstance has sparked great interest in exploring this issue to obtain further understanding of how education students perceive the teaching and learning approaches that underpin the...
Malaysian National Education Philosophy. If professional education of teachers is to play a role in this reform effort, then the teacher education programme is the most significant factor in teaching reform.

Research questions

The aim of this study is to investigate the teaching and learning experiences of teacher educators and education students in a Malaysian teacher education programme by exploring their teaching and learning approaches. Three research questions are derived from this research objective:

1. How do Malaysian teacher educators and Malaysian education students experience teaching and learning approaches in a university teacher preparation programme?

2. What teaching approaches do Malaysian teacher educators employ in teacher preparation programme?

3. What learning strategies do Malaysian education students adopt in teacher preparation programme?

Method

Research design

A qualitative case study approach was adopted to investigate teaching and learning experiences among teacher educators and education students in a Malaysian teacher education programme. This study used semi-structured interviews, observations, stimulated recall interviews, and document analysis to answer the research questions. The preliminary data analysis will be presented in this paper.

Participants

This study collected data from teacher educators and education students in a Malaysian teacher education programme. There were seven teacher educators from different teaching experience backgrounds. They were divided into four ranges of teaching years, i.e. less than 6, between 6 to 10, 11 to 15 and more than 15 years. A total of twelve final year education students who enrolled in semester 2, 2009/2010 in the faculty of education were also involved in this study. The students were between 23 to 24 years of age, of whom 60% were male and 40% were female.

Procedures

Data for this study were collected through several methods: Individual interviews; Focus group interviews; Observations; Stimulated recall interviews; Document analysis. Data collection took place three weeks after the opening of semester in the academic year 2009/2010. The interviews with teacher educators and education students were semi-structured and conducted before and after class hours. The interview questions queried teacher educators and education students in Malaysian teacher education programme about teaching and learning approaches. After the individual interviews sessions were completed, focus group interviews with education students were conducted. There were a total of 26 interviews conducted in this study. All the interviews were lasted for 45 to 60 minutes. Assurance of confidentiality was given to the participants in the study through an Informed Consent Form. Classroom observations were conducted after completing all the interviews. There were five classrooms involved for the observations in the study. Four classrooms observations were conducted in 2 hour periods for each class and the other classroom in a 3 hour period. The stimulated recall interviews were conducted on the five teacher educators after
completing the classroom observations. The stimulated recall interviews lasted between 30 and 45 minutes and were conducted in the teacher educators’ offices. Documents such as programme reports, course pro forma, lesson plans, course outlines and guidelines from Malaysian Ministry of Education relating to teaching and learning approaches were analysed.

Results

Analysis of the data indicated three major emergent themes. These themes involve issues of participating learning activities in classroom, taking responsibility for learning and developing positive teacher-student relationships. Theme One was connected to participative learning activities in classroom. When asked about their learning strategies, the students stated that they “learn best through active learning techniques such as group discussion, students’ presentation and team project”.

They [teacher educators] just gave lectures for the first couple of weeks during the semester. From then on until final examination, we [students] were expected to participate in classroom activities. The teachers normally assigned us several topics for classroom groups’ discussion which sometimes need to be presented in groups (S6).

Most of the students stated they “learn more effectively and enjoyably” by engaging in all those classroom tasks.

I like to be active in class, ask questions, discuss with friends and participate in group activities. I do not like to only sit down and read books in class… but I can learn better when engaging class projects and then presenting the outcomes to the class (S3).

The data collected reveal some teacher educators encouraged their students to actively engage in various classroom activities. Some teacher educators agreed they did employ several active learning strategies in their classes. For examples,

I believe, when a lecturer employs several kinds of teaching activities, they will make his teaching more effective … preparing students with opportunities to learn deeply. I like to adopt problem based learning activities as my teaching approach. From the activities, students will have more chance to get together with their peers to solve learning problems. We can create more skills through learning activities…. (T1).

I prefer to use discussion method in my teaching approaches… it is a good method in order to stimulate students to interact with others… and through discussion, one will be more confident with what he or she is thinking, giving greater influence rather than thinking alone (T4).

Theme Two from the data was students’ responsibility in learning. All students reported that they were motivated to construct and modify knowledge upon the foundation of their previous learning through interactions with teacher educators and peers. All students stated they were encouraged by some teacher educators “to take responsibility to actively seek out and construct meaning from other information and their previous experiences”.

Sometimes lecturers asked us to explain how we were thinking and shaped our responses by connecting to previous learning… (S10).

Students’ responses reflected that they felt quite “responsible in active knowledge construction process” for material that has not been explicitly discussed in class. For instance, one student commented,

Lecturers allowed us to interpret and reflect… to get more analytical and critical thinking regarding the lessons presented in class or topics which were not discussed in class … and we managed to construct our own learning from our own understanding and experiences (S3).

The students further reported they accepted their own responsibilities “to play active roles as students rather than passive”.

I would prefer to seek additional knowledge from the internet for further information. That would assist me in understanding and acquisition of knowledge…. helped me to think better rather than just receiving (S6).
Some students stated that by participating in active learning strategies, they actually developed self-responsibility for gaining new learning skills.

*Those learning activities really led us to creative and critical thinking in solving problems, besides we could obtain other skills such as communication skills, group management skills and others (S10).*

Findings from interviews further show some teacher educators encouraged students to be fully responsible in their own learning. Interviews with teacher educators revealed that most of them reported that they believed that they were “providing great opportunities” for their students “to play active roles in learning”. Some of them reported they “assigned a lot of class tasks” as a way to “cultivate students’ responsibilities”. Responses from interviews with teacher educators also revealed that they “motivated” their students “to actively explore various learning skills from classroom activities or assignments given”.

The third theme focused on establishing and developing teacher-student relationships. Most students reported they were being “respected by their teacher educators” who treated them as “adult learners”. They reported they “felt happy and didn’t feel stress during and after class” and therefore “can learn effectively”. The data illustrate most of the students indicated a high level of satisfaction regarding relationships with their teacher educators. It was evidence from the interview transcripts that the level of satisfaction was not only lead to the degree of their learning participation but also to their motivation for learning.

*I felt really motivated to learn better when the lecturers encouraged us with authentic motivation and praise. They treated us like adult learners…we didn’t have pressure learning in those classes (S4).*

*Sometimes our lecturers built good relationships with us in classroom in order to gain our attention…motivated us to be fully prepared in receiving the day’s materials by asking our experience and previous learning knowledge…..that approaches made us really happy to learn, not stress at all..... (S11).*

Most students stated that they felt “really happy and motivated to learn” when their teacher educators “show their care and respect”.

*We are really satisfied with relationships with our lecturers...we were being cared, respected and supported... as adult learners... Good relationships with lecturers have increased our participation in learning activities... they also provided us good motivation for learning (S1).*

When asked about teacher-student relationships, some teacher educators reported that they “tried to build good relationships with their students” and “treated them as individuals”. Some of them mentioned “the importance of establishing positive relationships with students” in order to “enhance students’ learning and growth”.

*Different students have different learning styles and personalities... therefore; we, lecturers, tried our best to build relationships with all students...we made some attempts to appreciate individuals’ differences... sometimes we even worked really hard to ensure their [students] effective learning (T3).*

*It is really important to be nice to our students....I believe, the positive relationships will gradually lead the students to effective learning and personal growth (T7).*

However, the data also revealed the existence of some characteristics of teacher-centred approaches in the programme. From the interviews, several students reported there were some teacher educators who were still adopting the traditional approaches as their preferences teaching practices.

*Some lecturers just gave lectures using power point slides presentations and do not involved students in any classroom activities (S3).*

*They [teacher educators] just transmitted the knowledge and contents directly from their notes. We just sat there for three hours taking notes without doing anything else..... (S9).*

Responses from some teacher educators pointed to reasons for not adopting student-centred approaches. They declared that they “don’t have enough time to adopt active learning approaches because of time constraints and class size” and therefore, they reported that “providing direct lectures are the most appropriate teaching methods in order to cultivate students’ understanding”.

6
Data from interviews revealed that some teacher educators preferred to adopt traditional teaching approaches due to several reasons such as “students will be able to acquire more information from lectures” and “some lessons such as theoretical based topics require students to gather facts”. One teacher educator mentioned that,

> Our students have difficulty in self expression and lack of self confidence in their study patterns. They still need us…… our expertise, to deliver the information (T4).

Even though most of the students reported that active learning strategies were their “learning preferences compared to the traditional approaches”, there were several students, who admitted that they “preferred traditional teaching more than active teaching approaches”. They commented that they need to “obtain knowledge and information” from “lecturers who are very expert in their field” and they “could give full concentration to the lesson taught”. Two students reported,

> I think without learning activities in the classroom, an active learning process can still be achieved…a quiet student in a classroom cannot be labeled as passive student because perhaps he or she learned with his or her emotional and mind aspects. For me, traditional teaching method was not a passive paradigm as long as students can give full concentration to the lesson (S7).

> I still prefer traditional teaching styles. Especially, when lecturers are really good in their personalities and are well known with their great knowledge. Some lecturers are very expert in their field. Everybody wanted to go to their class because of their expertise (S8).

Responses from some teacher educators suggested that they doubted that some students were taking full responsibility as active learners. These responses show evidences that some education students preferred the traditional learners’ role.

> Some students were really shy and reluctant to be active in class…some of them didn’t want to offer ideas or thoughts during discussion with peers…… (T2)

> They [students] perceived their lecturers as experts to disseminate knowledge and therefore their role as students is to accept the knowledge (T4).

From the interviews, students’ reaction towards learning appeared to be affected by the way they perceived their teacher educators as experts in the context of the teacher-student relationship in learning situation. They believed that their teacher educators “should be the experts” in their field.

> They are experts…I would follow whatever the teacher said…it was easier…because the teacher knew better what would be good for their students… (S1).

> I believe a good lecturer is someone who is really knowledgeable in his or her field. He or she can teach what he or she is supposed to teach. In other word, he or she is an expert (S9).

These statements were supported by teacher educators’ responses. They believed that teacher educators are the experts and students have to acquire knowledge from them. As an example:

> Indeed…they [students] could construct new information based on their own experiences, but they are still young….still studying. They still need to acquire information from lecturers who are knowledgeable and have valuable experiences… (T4).

Another response from a teacher educator revealed that he was reluctant to build good relationship with students after class because he believed there should be social distance between teacher and student.

> Some students’ personalities hindered us from building good relationship with them after class…..they were so demanding…..couldn’t differentiate between interacting with peers or teachers…. (T6).

**Discussion**

Findings from this study revealed that both teacher educators and education students value some elements of student-centred approaches. It was found that students were provided with opportunities to actively engage in active learning strategies through various classroom activities. In student-centred learning environment, students are encouraged to actively participate in classroom learning activities (Deboer, 2002) in order to enhance their thinking skills. The data suggest that the students
thought creatively and critically during the learning processes. Most students reported that the classroom activities intrinsically motivated them to learn effectively. A majority of the students said that by engaging in the classroom activities, they felt more confident in providing ideas and opinions. The findings suggested that the active learning strategies result in a deeper understanding, since they not merely acquire knowledge but also play an active role in knowledge construction. This learning environment equipped them with the competencies for lifelong learning. Lifelong education emphasizes less attention on acquiring knowledge but focus more on developing creative and critical thinking skills. This type of thinking develops learners who change and develop throughout their lives. Erikson’s psychosocial development theory (Erikson, 1998) asserts that the formation of individual thoughts and personalities is a lifelong process which includes challenges throughout the life. Erikson’s theory indicates that human have their own unique attribute and time period throughout the development of eight critical stages.

The data illustrate most of the students have became more responsible for and in control of their own learning. They appeared to be more independent and less dependent on their teacher educators. Evidence from the interviews further suggests many of the students embraced the greater responsibility and autonomy inherent in knowledge construction processes. The findings implied that the student-centred approaches developed students’ intrinsic motivation to a greater degree. Both teacher educators and education students valued the student-centred approaches that place students at the centre of learning. This circumstance facilitates student constructed meaning from previous experiences (Gibbs, 1992). The data further suggest that teachers evolved from being transmitters of knowledge to facilitators of learning. In student-centred learning environments, teachers are learning facilitators rather than content experts (Cornelius-White, 2007; Rogers & Freiberg, 1994) so as to empower students’ responsibility for learning (Brandes & Ginnis, 1996). These findings further supported the notion that student-centred learning environments promote deeper learning than teacher-centred approaches that seem to result in surface understanding and rote memorization of isolated facts. A “surface” approach refers to a strategy of rote learning of selected content without much effort at understanding. The learner’s motive or intention is extrinsic and merely to meet minimum requirements. On the other hand a “deep” approach refers to a strategy that maximises understanding (Biggs, 1987; Entwistle & Ramsden, 1983).

Finally the research found out that student-centred approaches contribute to improved and enhanced teacher-student relationships. The data suggest that students and teacher educators embraced the importance of establishing and developing mutual respect and supportive in teaching and learning process. The positive relationships among teacher educators and students result in open communication, as well as emotional and academic support. The data imply some teacher educators improved their relationships with students by providing students learning autonomy and opportunities for decision making. The findings suggest that the positive teacher-student relationships led teacher educators to build mutual respect and acceptance (Pianta, 1999), understanding, warmth and genuineness (Cornelius-White, 2007) in creating a lifelong learning. These findings are consistent with Roger’s theory of education which emphasises the importance of facilitation of the whole and fully functioning person (Rogers & Freiberg, 1994).

The data provide an interesting phenomenon because Malaysian students have been known to be very passive in their learning. Issues involve lack of confidence, feelings of inferiority and inadequate interpersonal skill (Fauziah et al., 2005) prevented them to actively engage in an interactive student-centred learning environment. Interestingly, findings from this study imply that some learning issues experienced by Malaysian education students could be effectively addressed by ample opportunities for students to discuss and express their thoughts and feelings freely among their peers in a non-threatening and conducive learning environment. The findings suggest that some Malaysian teacher educators have successfully employed student-centred approaches in the teacher education programme. The findings support earlier research (Ismail & Alexander, 2005;
Luan, Bakar & Hong, 2006) which found there are Malaysian teachers who adopt several aspects of student-centred learning in their teaching practices. These practices can be regarded progress to meet the objective of the Malaysian National Education Philosophy that stresses student-centred approaches that aim to produce lifelong learners who are intellectually, spiritually, emotionally and physically balanced and integrated.

Nevertheless, there is still room for further improvement in the implementation of student-centred learning. The findings offered several examples of teacher educators who are reluctant to relinquish their role as a dispenser of knowledge and embrace a new approach as a facilitator of learning. The current study further found that some education students preferred to play a very limited role in teaching-learning processes. They preferred to be passive recipients in knowledge construction by passively responding to the materials provided by their teacher educators who they perceived as experts or knowledgably. These attitudes evidence rejection of active learning strategies. Findings of negative teacher-student relationships further support the need for changes in terms of teaching and learning approaches, curriculum preparation and assessments orientation. Therefore, it is recommended that, based on the findings of this research, review of Malaysian teacher education strategies occur with the goal of further implementing student-centred approaches consistent with the Malaysian Education Philosophy.

The findings also have implications for re-examining the teaching and learning context of Malaysian teacher education strategies. Such a review may provide additional support for creating a lifelong learning environment that could enhance students’ intellectual and personal development. Adoptions of strategies are recommended to ensure the link between teaching objectives and teaching practices. Review of both professional knowledge and the skills and values that are important in preparing teacher educators and education students are suggested. Professional development for teacher educators may result in not only in enhanced teaching methods, but more importantly, development of teaching strategies that are consistent with the promotion of lifelong learning.

Findings from the study further imply that students could be highly encouraged to be actively participated in learning activities. Additional encouragement for students to take personal responsibility for their own learning would cultivate lifelong learning. Students’ learning perspectives that tend to be more teacher-centred may be challenged and channelled towards active learning. Attempts may also be made to motivate Malaysian students to actively participate in class activities without giving them pressure. Such efforts could counter the Malaysian culture wherein students are expected to be quiet and obedient to teachers’ instruction.

Reference


Dunn, R., & Dunn, K. (1979). Learning styles/teaching styles: Should they...can they...be matched? Educational Leadership, 36, 238-244.


