

STUDENT-CENTERED PEDAGOGY: LEST WE FORGET

by

Toh Wah Seng

ABSTRACT

The purpose of this paper is to argue for the need to address the concern of teachers and teacher educators in relation to the perceived lack of efficacy of the student-centered pedagogy in promoting student learning in schools. Evidence of pedagogical efficacy of the student-centered approach is adduced to debunk the myth that it is inferior to the teacher-centered approach in promoting students' cognitive achievement. The link between teachers' pedagogical belief system and students' learning approach provides a useful framework to argue for the need of a paradigm shift in teachers' belief system both at the school level as well as at the teacher education level.

INTRODUCTION

Despite evidence of the positive effects of the student-centered pedagogy on learning outcomes there is little indication that such a pedagogy is widely practised in Malaysian schools. There is a general presumption that a student-centered pedagogy is inferior to a teacher-centered pedagogy in increasing students' cognitive performance. This paper presents some of the benefits of a student-centered pedagogy to refute this presumption. It also argues for a need to address teachers' educational beliefs, particularly in teacher education, towards a more student-centered pedagogy given that a teacher's beliefs influence the teacher's pedagogical approach.

STUDENT-CENTERED PEDAGOGY AND THE MALAYSIAN SCHOOL CURRICULUM

Our National Philosophy of Education (Falsafah Pendidikan Kebangsaan) encompasses the ideals of a national citizenry whose members are wholesome and balanced in all dimensions of human development, and who can contribute to the well-being of fellow members and to the nation. The school curriculum was thus designed towards achieving these ideals. One of the premises of this curriculum is that the teaching and learning process should allow for developmental growth of students in both the affective and non-affective dimensions of human development. This is clearly visible in the curriculum prescriptions at the primary school level where teachers are to adopt a student-centered pedagogy in the classroom.

However, at the secondary level, teachers have been given much freedom to choose the way they teach and to what extent teachers adopt a student-centered pedagogy has been a concern to curriculum developers. The emphasis on examination results and the paper-chase culture has in fact resulted in teachers resorting to teaching strategies that are more teacher-centered. Teachers who produce better student examination results are generally perceived as more effective. Over the years since the implementation of the KBSM, various studies on curriculum implementation have painted a pathetic scenario as far as the question of fidelity is concerned. Although teachers are delivering the content, there is a general lack of fidelity as far as the process is concerned (Toh, 1991).

The failure to adopt a student-centered pedagogy seems to be attributed to teachers' fear that such a pedagogy is inferior to a teacher-centered approach as far as promoting students' academic achievement is concerned. The general belief is that there is a trade-off between students' academic achievement and student-centeredness. Teachers tend to agree that student-centeredness is appropriate in promoting growth in the affective dimension but pen and paper examinations at the end of the school year assess the cognitive attainment of students. Teachers' presumption that student-centeredness is less effective in promoting academic attainment does not hold up to available evidence.

STUDENT-CENTERED PEDAGOGY AND STUDENT LEARNING

There has been much work done on the effect of teaching approaches on student learning. In particular, the relationship between student-centered teaching approaches on student learning has consistently shown the positive effect of such approaches on students' cognitive and affective outcomes. For example studies on the effect of active and collaborative learning, including cooperative learning strategies, have indicated that students tend to perform better on cognitive tests of achievement and score higher on attitude scales (Examples: Morgan, 1972; Slavin, 1996; Lord, 1997; Hancock et al., 2000). Evidence to this claim is in fact rather abundant and there is little dispute that the student-centered pedagogy which encourages active, collaborative and constructivistic learning improves students' learning in more ways than one. For example, a very important outcome of student-centered pedagogy which is often less noticeable is its effect on students' approach to learning.

Biggs (1987), Entwistle and Ramsden (1983) used a systems model to identify three approaches to learning. 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. The learner has a felt need to engage the task appropriately and "focus on underlying meaning rather than on the literal aspects of the task" (Biggs, 1996). An "achieving" approach focuses on achievement and thus ego-enhancement. The learner maximises effort to attain high grades and to gain recognition through top performance. Each approach employs a distinctive strategy in learning. The surface learner employs mainly a rote learning strategy and expends minimal time on task. The deep learner would process material at a

“high level of generality, such as main ideas, themes, and principles, rather than as conceptually unsupported specifics”. The strategy of the achieving learner is to focus on organising time, working space, and systematic use of study skills.

The link between learning approach and learning outcomes has been documented by work on the effect of learning environment on quality of student learning (Examples: Biggs, 1989, 1994; Entwistle, 1992; Gibbs, 1992; Ramsden, 1992; Prosser & Taylor, 1994; Hounsell, 1997). This literature provides considerations of improving teaching which can encourage the deep approach to lead to better quality of student learning. The link between learning environment and students’ approach to learning can be found in the works of Gow and Kember (1993), and Sheppard and Gilbert (1991). This literature indicates that a student-centered learning environment is less likely to promote surface learning while a teacher-centered learning environment tends to depress deep learning.

EDUCATIONAL BELIEFS, TEACHING APPROACH AND STUDENT LEARNING

Research into beliefs about teaching and their relationships to teaching approaches and student learning rest on the premise that teachers’ beliefs and attitudes influence their behaviors and teaching practices (Fang, 1996). Researchers have therefore argued that understanding and changing the belief structures of teachers and student teachers is essential to improving their professional preparation and teaching practices (Pajares, 1992). The study of educational beliefs can be traced to Dewey’s (1902) conception of the bipolar nature of progressivism and traditionalism in educational beliefs. The philosophical orientation of educators with respect to their educational beliefs has a profound effect on their practices. Progressive beliefs are associated with more humanistic and learner-centered practices while traditional beliefs on the other hand are associated with more teacher-centered practices.

Bunting’s (1984 & 1985) research into educational beliefs refutes Dewey’s proposed theory about the bipolar nature of educational beliefs. Her research investigated the general content of teacher attitudes with respect to the educational process and derived two independent dimensions which she labels them as “student-centered” and “directive” to classify teachers’ educational beliefs. These two independent dimensions of belief suggest that teachers may hold both the student-centered and directive attitudes simultaneously rather than holding either of the two orientations as in the case of Dewey’s bipolar orientations between progressive and traditional viewpoints.

The student-centered dimension is characterized by teachers’ belief in the importance of “empathic, supportive relationships which free students to discuss their feelings and experiences” and that students should be “actively involved in learning through opportunities to predict, infer, generalize, and evaluate” (Bunting, 1988, pp. 44). The directive dimension is teacher-centered and is characterized by teachers’ belief that “teachers, rather than students, should be in control of decisions and processes related to education” and the basic elements of this dimension are “firm discipline, attention to order and procedure, and a teacher-controlled curricula”. That teachers may hold both

attitudes has implications in that teachers may be more student-centered in some instances while becoming more teacher-centered in other instances.

Although there has been much work done to link teaching approach to student learning outcome, there is still little we know about how teachers' beliefs is related to student learning. Based on the premise that beliefs influence behaviour, Trigwell et al. (1994) and Trigwell and Prosser (1996) found evidence of a relationship between intentions of college lecturers and the teaching strategies they adopt. Lecturers who hold more student-centered conceptions of teaching tend to adopt student-centered strategies. The premise that teachers's beliefs influence their teaching behaviours is reasonable and thus, teachers who hold student-centered educational beliefs will tend to be more student-centered in their approaches to teaching.

In a study to link teachers' educational beliefs and students' learning approach, Gow and Kember (1993) found a relationship between lecturers' conceptions of learning and changes in students' approaches to learning. Lecturers attuned to more student-centered conceptions of teaching were less likely to promote a surface approach to learning while those attuned to more teacher-centered conceptions of teaching tend to depress a deep approach to learning. Similar strains of findings can be found in the work of Sheppard and Gilbert (1991).

The relationship between teachers' educational beliefs and student learning can thus be seen as one that is mediated through a process whereby teachers' educational beliefs influence their teaching strategies which will in turn influence students' learning approach and ultimately students' learning outcomes. A 3P (Presage, process and product) model of student learning proposed by Kember (1994) indicates the importance of teachers' educational beliefs as a presage variable that influences the process variable of teaching approach which in turn influences student learning approach and finally learning outcome. It is therefore important to address teachers' beliefs before any change in teachers' practice is to be effected.

STUDENT-CENTERED EDUCATIONAL BELIEFS AND TEACHER EDUCATION

There is abundant evidence suggesting the importance of the student-centered pedagogy in affecting positive student learning outcome and the link between teachers' educational beliefs and their teaching approach. It is therefore important to educate and encourage teachers towards a teaching orientation that is anchored to a more student-centered educational belief. In this respect teacher education institutions have in fact placed great emphasis on adressing this issue. Most preservice teacher education curricular would be deemed traditional if such a provision as to facilitate student teachers to become facilitators of active learning is not contained in its espoused aims. However, it is still currently premature to claim that efforts towards this end have been successful. A review of the literature indicates that the effort is often neutralised by the school environment during the practicum.

Most of the research on student teachers' educational beliefs have shown that student teachers become more custodial in their orientation (Coulter, 1987; Hoy & Woolfolk, 1990), and less humanistic but more traditional over time (Nortman, 1991). and the effect of the practicum on student teachers is a change from an affective orientation to a task orientation (Nettle, 1998). Affective orientation in Nettle's study was reported to be closely related to humanistic approaches to education while task orientation is associated with teacher-centeredness. These studies suggest that the effect of the practicum on student teachers' educational beliefs is a change from a progressive learner-centered stance to a more traditional and custodial teacher-centered attitude towards teaching and learning.

These findings were again replicated in a study on practicum impact in the context of a Malaysian teachers' college practicum (Toh, 2002). Student-teachers became less student-centered but more teacher-centered in their educational beliefs. The findings in this study also suggest that school and classroom environment variables are somewhat related to student teachers' educational beliefs. Student teachers tend to be more teacher-centered in classrooms where students are less achievement-oriented, less-disciplined and of lower ability. Student teachers also tend to be more teacher-centered in schools where there is a lack of professional interest and collegiality among the teaching staff and where students tend to be less supportive of teachers. The indication is that the quality of the school and classroom environment tends to influence student teachers' educational beliefs. Student teachers placed in schools with poor environment tend to be more teacher-centered in their educational beliefs.

Various perspectives to explain why student teachers are socialised by the school environment to become more teacher-centered can be found in the literature. Some argued from a developmental perspective indicating that such a phenomenon is a natural part and parcel of progression in the development of teachers. Teacher development researchers, for instance, have posited a developmental path where teachers begin teaching from a survival stage (Burden, 1980) with high anxiety (Sacks & Harrington, 1982) and focused on self concerns (Fuller, 1969), and eventually progress to maturity, relief, confidence, mastery, and focused on task and impact concerns.

Others have documented a pattern of student teacher changes which see a shift of attention from self to instructional issues, and then to pupil learning (Kagan, 1992a, 1992b), a shift from an affective orientation associated with humanistic approaches to education to a task orientation associated with classroom control (Nettle, 1998), a shift of focus from task to pupils (Hollingsworth, 1989), and an increase in classroom management concerns (Hollingsworth, 1989; Burgess, Briscoe, & Williamson, 1994). The developmentalists would view such a phenomenon as an essential part of the process in the development of beliefs. From this perspective, it can be argued that as student teachers first experience teaching, their initial idealized beliefs begin to be challenged by the reality of the classroom. These initial beliefs are progressively changed through a developmental process involving accommodation, adaptation, and assimilation.

However, this developmental view has been strongly contested by Grossman (1992) who argues that such a view conveys the idea that student teachers must first learn procedural knowledge to survive in the classroom at the expense of content knowledge. According to Grossman, this view only leads to the acceptance of the notion that student teachers must necessarily learn to survive in the classroom and gradually shift to a traditional orientation in teaching that perpetuates conservatism in schools. Grossman proposes that teacher education programs should consider the perspective that programs be able to enable student teachers to engage in higher levels of reflection and bring about positive change not only to student teachers but also to school practices. Whichever view one considers, the fact is that there is an urgent need to address this lack of efficacy in teacher education, not just at the preservice level but also concurrently at the in-service level.

CONCLUSION

The need for teachers to shift towards a student-centered paradigm has become more urgent given the recent emphasis on generic and thinking skills in the curriculum. The importance of these skills cannot be underestimated. The argument is that the advent of globalisation and the blistering pace of technological advancement in ICT has made these skills essential if one is to survive and remain competitive in a fast-changing world. There is therefore a need for teachers to reassess their positions, examine their educational beliefs about teaching and learning, and embark on an appropriate course of action towards a student-centered pedagogy that enables students to acquire these skills.

In preservice teacher education student teachers' prior educational beliefs that tend to be more teacher-centered as a result of years of schooling in a traditional teacher-centered system need to be challenged and changed towards a student-centered paradigm. Given the importance of the school context in affecting student teachers' educational beliefs, the use of partnership schools in conjunction with efforts to improve the professional link between the college and the schools should also be increased to ensure that the quality of the context can be improved to support student teachers' professional development. Recent evidence of the effectiveness of professional development schools in enhancing practicum experience (Neubert & Binko, 1998) shows promises of such an approach to the practicum. It may be beneficial for teacher education in Malaysia to experiment with this approach.

On the other hand, concurrent efforts to encourage the use of more student-centered pedagogy among practising teachers also need to be emphasised. The teachers' colleges can embark on a course of action through its inservice short courses not only to change the mind set of teachers towards a more student-centered educational belief but more importantly to educate teachers on the use of student-centered approaches. The year 2002 has seen the CDC (Curriculum Development Center) embarking on a major effort to change the KBSM curriculum, not so much on the content but mainly on the teaching and learning process. The emphasis on student-centered teaching and active learning strategies is the main thrust of this change. Courses to train teachers of every subject have been conducted by the CDC.

There is still hope after all and it's never too late for a change so that we may still reap the fruits of our endeavour. We need to be reminded regularly lest we forget the goodness we forego and instead settle for less. We need to change our educational beliefs towards a student-centered pedagogy for its "believing is seeing" and not "seeing is believing" if there is to be any paradigm shift at all.

REFERENCES

- Biggs, J. B. (1987). *Student approaches to learning and studying*. Melbourne: Australian Council for Educational Research.
- Biggs, J. B. (1989). Approaches to the enhancement of university teaching. *Higher Education Research and Development*, 8, 7-26.
- Biggs, J. B. (1996). Approaches to learning. In Albert Tuijman (ed). *International Encyclopedia of Adult Education and Training (2nd edit, pp381-385)*. Oxford: Pergamon.
- Bunting, C. E. (1984). Dimensionality of teacher education beliefs: An exploratory study. *Journal of Experimental Education*, 52(4), 195-98.
- Bunting, C. E. (1985). Dimensionality of teacher educational beliefs: A validation study. *Journal of Experimental Education*, 53(4), 188-192.
- Bunting, C. E. (1988). Cooperating teachers and the changing views of teacher candidates. *Journal of Teacher Education*, 39(2), 42-46.
- Burden, P. R. (1980). *Teachers' perceptions of the characteristics and influences on their personal and professional development*. Manhattan, KS: Author. (ERIC Document Reproduction Service No. ED 198087).
- Burgess, Y., Briscoe, D., & Williamson, J. (1994). The impact of first-year education practicum and study on preservice teachers: A West Australian perspective. *South Pacific Journal of Teacher Education*, 22(1), 19-26.
- Coulter, F. (1987). Affective characteristics of student teachers. In M. J. Dunkin (Ed.), *The international encyclopedia of teaching and teacher education* (pp. 589-598), Oxford: Pergamon.
- Dewey, J. (1902). *The child and the curriculum*. Chicago: University of Chicago Press.
- Entwistle, N. J. (1992). *The impact of teaching on learning outcomes in higher education*. Sheffield: Universities' and Colleges' Staff Development Unit.
- Entwistle, N. J., & Ransden, P. (1983). *Understanding student learning*. London: Croom Helm.
- Fang, Z. (1996). A review of research on teacher beliefs and practices. *Educational Research*, 38(1), 47-65.
- Fuller, F. F. (1969). Concerns of teachers: A developmental conceptualization. *American Educational Research Journal*, 6, 207-226.
- Gibbs, G. (1992). *Improving the quality of student learning*. Bristol: Technical and Educational Services.
- Gow, L., & Kember, D. (1993). Conceptions of teaching and their relationship to student learning. *British Journal of Educational Psychology*, 63, 20-23.
- Grossman, P. L. (1992). Why models matter: An alternate view on professional growth in teaching. *Review of Educational Research*, 62(2), 171-79.

- Hancock, Dawson R.; Mayring, Philipp; Glaeser-Zikuda, Michaela; Nichols, William Dee; Jones, Jeanneine (2000). The Impact of Teachers' Instructional Strategies and Students' Anxiety Levels on Students' Achievement in Eighth Grade German and U.S. Classrooms. *Journal of Research and Development in Education*; v33 n4 p232-40 Sum 2000.
- Hollingsworth, S. (1989). Prior beliefs and cognitive change in learning to teach. *American Educational Research Journal*, 26, 160-90.
- Hounsell, D. J. (1997). Understanding teaching and teaching for understanding. In F. Marton, D. J. Hounsell, & N. J. Entwistle (Eds.), *The experience of learning* (2nd ed.). Edinburgh: Scottish Academic press.
- Hoy, W. K., & Woolfolk, A. E. (1990). Socialization of student teachers. *American Educational Research Journal*, 27, 279-300.
- Kagan, D. M. (1992a). Professional growth among preservice and beginning teachers. *Review of Educational Research*, 62 (2), 129-169.
- Kagan, D. M. (1992b). Implications of research on teacher beliefs. *Educational Psychologist*, 27 (1), 65-90.
- Kember, D., & Gow, L. (1994). Orientations to teaching and their effect on the quality of student learning. *Journal of Higher Education*, 65(1), 58-74.
- Lord, Thomas R. (1997). A Comparison Between Traditional and Constructivist Teaching in College Biology. *Innovative Higher Education*; v21 n3 p197-216 Spr 1997.
- Morgan, George A.(1972). Effects of a less prescriptive, Student-Centered College Curriculum on satisfaction, attitudes and achievement. ED069798.
- Nettle, E. B. (1998). Stability and change in the beliefs of student teachers during practice teaching. *Teaching and Teacher Education*, 14(2), 193-204.
- Neubert, G. A., & Binko, J. B. (1998). Professional development schools: The proof is in performance. *Educational leadership*, Feb 1998, 44-46.
- Nortman, M. L. (1991, February). *Student teacher attitudes and attitude change*. Paper presented at the annual meeting of the Association of Teacher Educators, 71st, New Orleans, LA. (ERIC Document Reproduction Service No ED 329528).
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307-332.
- Prosser, M., Trigwell, K., & Taylor, P. (1994). A phenomenographic study of academics' conception of science learning and teaching. *Learning and Instruction*, 4, 217-231.
- Ramsden, P. (1992). *Learning to teach in higher education*. London:Kogan Page Sacks, S. R., & Harrington, G. N. (1982, March). *Student to teacher: The process of role transition*. Paper presented at the meeting of the American Educational Research Association, New York.
- Sheppard, C., & Gilbert, J. (1991). Course design, teaching method and student epistemology. *Higher Education*, 22, 229-249.
- Slavin, R. E. (1996). Research on cooperative learning and achievement: What we know, what we need to know. *Contemporary Educational Psychology*, 21, 43-69.
- Toh, W. S. (1991). *The implementation of the entrepreneurship component in the living skills curriculum: Teachers' concerns and use of a curriculum innovation*. Unpublished masters thesis. K.L.: Universiti Malaya.

- Toh, W. S. (2002). *Practicum student teachers' educational beliefs and their relationships to the school and classroom environment*. Paper presented at the 2002 National Seminar on the Teaching Profession, 3-4 June. Selangor: Uniten.
- Trigwell, K., & Prosser, M. (1996). Congruence between intention and strategy in university science teachers' approaches to teaching. *Higher Education*, 27,75-84.
- Trigwell, K., Prosser, M., & Taylor, P. (1994). Qualitative differences in approaches to teaching first year university science. *Higher Education*.27, 75-84.