

WHEN IS TEACHING EFFECTIVE? UNDERSTANDING TEACHERS' BELIEFS ABOUT EFFECTIVE TEACHING

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ABSTRACT

This study presents a qualitative analysis of teachers' beliefs about effective teaching from the responses to an open-ended question by seventy-five teachers in the basic education and tertiary levels. From the written narrative statements of the participants, domains were developed, and were abstracted and clustered into themes. Then, cross analysis and internal auditing were done. The study revealed four themes that mostly characterize effective teaching namely: students' learning behavior, teachers' professional competence, nature of teaching and teachers' personal qualities. Teachers' beliefs are predominantly learner-centered. This finding was validated through focus group discussions and interviews among the teachers. Results of this investigation point to the need of examining whether teachers' beliefs in effective teaching are consistent with their teaching practice. Future research directions may take the form of development of scales or measures of effective teaching based on the prevailing themes that emerged in this study.

Keywords: teachers' beliefs, effective teaching, active engagement

Introduction

Undeniably, teachers play a critical and central role in the learning process. Their role as facilitators of learning is linked to their thoughts and beliefs about what makes teaching effective. From this foregoing perspective, the researchers postulate that when teachers are highly cognizant of their beliefs in effective teaching, the more likely will they manifest teaching behaviors that are in line with their beliefs.

Beliefs are defined as "statements teachers make about their ideas, thoughts, and knowledge that are expressed as evaluations of what must be done" (Basturkmen et al., 2004); they serve as "guides to thoughts and behavior" (Borg, 2001); and are seen as "world views, and mental models that shape learning and teaching practices" (Ernest, 1989, p. 250; Aguirre and Speer, 2000). Studies reveal that teachers' beliefs were found to have a link on their teaching practices and instructional decisions (Mira, 2008; Donaghue, 2003).

However, some researchers detected inconsistencies between teachers' beliefs and their classroom practices (Lim and Farrell, 2005; Calderhead, 1996; Kane et al., 2002). For example, Ertmer et al. (2001) reported that teachers' beliefs about classroom technology use did not always match their classroom practices, specifying that even if teachers claimed to be constructivists, their approaches showed a mixture of conventional and constructivist methodologies.

Effective or quality teaching includes focus on student achievement; facilitating caring, inclusive, and cohesive learning communities; creating effective links between school and other cultural contexts; being responsive to student learning processes; scaffolding and providing appropriate feedback on students' task engagement; and promoting learning orientations, student self-regulation, metacognitive strategies and thoughtful student discourse; and having constructive engagement in goal-oriented assessment by both teachers and students (Alton-Lee, 2003).

Similarly, Gurney (2007) acknowledged the interaction of five factors that comprise effective teaching. These are: teacher's knowledge, enthusiasm and responsibility for learning, classroom and assessment activities facilitative of learning, quality feedback which promotes learning processes in the classroom, effective interaction between the teacher and the students, and creating an environment that respects, encourages and

stimulates learning.

It is, therefore, important to examine and to understand the teachers' beliefs on what makes teaching effective, because their beliefs are related to their educational practices. (Deemer, 2004). Furthermore, teachers' beliefs and assumptions have to be explored to facilitate development through critical reflection (Donaghue, 2003).

Considering that this qualitative research is data-driven, the constructs do not necessarily influence the participants' responses, but these are cited to provide the researchers and the readers an understanding of the concepts used in the study. This present investigation aims to determine the teachers' beliefs about what makes teaching effective among teachers in a private school in Northern Mindanao, Philippines, in order to gain a deep understanding of their beliefs with the hope of generating insights for instructional improvement.

Method

This study adopted a qualitative design which allowed reporting of more robust data on teachers' beliefs about effective teaching. In this design, the teachers were given the opportunity to articulate their thoughts and views about effective teaching through the use of open ended question. After encoding the responses of 75 participants, it was observed that the data yielded no new concepts, indicating that data collection had reached the saturation point. Thus out of 92 faculty members, seventy five (75) responses were taken to constitute the sample; 25 of these were from the Basic Education and 50 from the higher education department. Their ages ranged from 21 to 57 years old with the mean age of 36.47. Administrators and part time faculty members in the higher education department who were teaching only 1-2 subjects were excluded from the study.

In order to elicit teachers' beliefs about effective teaching, a questionnaire was prepared. The first part elicited information about their age and subjects taught. The second part consisted of an open-ended question, "When do you say that teaching is effective?" After the questionnaire was subjected to content validation, it was given to the participants who were given one week to reflect on the question.

The written narrative statements of participants' beliefs about effective teaching were analyzed by the researchers, and a list of domains were developed. Then, the domains were clustered into themes. After

which, cross analysis of the data was done to determine the frequency of the occurrence of the domains. Then an internal auditing was done to check if the domains remained close to the data. To strengthen the findings of the study, focus group discussions and interviews were conducted among the participants.

Results

The results of this qualitative study based on the research question are presented in subsequent tables. As stated earlier, their responses to the question were coded into domains in order to generate the themes emerging from the study. To determine what makes teaching effective, a summary of the domains with the corresponding themes is shown in Table 1.

TABLE 1: Themes and Domains Representing Teachers' Beliefs on What Makes Teaching Effective(n=75)

Themes	DOMAINS	%
STUDENTS' LEARNING BEHAVIOR	Students Actively Engage in Class	37.14
	Students Apply Learning	32.86
	Students Perform Well / Achieve Academically	24.29
	Students Retain Knowledge	22.86
	Students Self Regulate Learning	21.43
	Teachers and Students Interact	18.57
	Students Enjoy and Appreciate Learning	8.57
	Students Relate with other Students	2.86
TEACHERS' PROFESSIONAL COMPETENCE	Teachers Use Appropriate Methodology	15.71
	Teachers Promote Students' Interest / Attention	10.0
	Teachers Maintain Conducive Learning Environment	5.71
	Teachers Prepare	5.71
NATURE OF TEACHING	Teaching Builds Connection between Theory & Reality	12.86
	Teaching is Lifelong Learning	5.71
TEACHERS' PERSONAL QUALITIES	Teachers' Integrity and Enthusiasm	8.57
	Teachers' Flexibility	5.71
	Teachers' Innovativeness	2.86

From the data, the domains point to four themes namely: students' learning behavior, teachers' professional competence, nature of teaching, and teachers' personal qualities. As shown in Table 1, the higher frequencies representing teachers' beliefs of effective teaching are seen in students' learning behavior. Subsumed under learning behavior are domains that refer to teachers' beliefs that teaching is effective when students actively engage in the classroom; when application of learning is evident; when they excel

academically; when there is knowledge retention; and when students use self-regulation in their learning.

Expressing their beliefs about effective teaching related to students' learning behavior, teachers disclosed that teaching is effective when:

"all students are attentive, interactive and participative in class discussion"

"students show positive response and could interact fruitfully and meaningfully in the lessons discussed."

Other than students' active participation, teachers emphasized students' application of learning, and teachers stated that teaching is effective when...

"there is transfer of learning especially when the student is outside the classroom."

"they can apply the skills in their real lives."

Another learning behaviour accentuated by the teachers is students' performance. The participants described teaching as effective when...

"students perform well during assessment... and pass the course with good ratings."

"I see them successful in their respective careers."

Teachers likewise revealed that teaching is effective when students retain knowledge, as expressed in these disclosures:

"Teaching is effective when students do not forget what they learned inside the classroom."

"Effective teaching occurs when learners can immediately recall the past lessons."

The reference to students' self-regulated learning is exemplified in the responses of the teachers as follows:

"Teaching is effective when students can perform well the activity without much supervision."

"Effective teaching is seen when students develop the

discipline to study and go beyond what is given to them..."

The foregoing beliefs were among the recurring responses of the teachers. Also evident in this category but with lesser frequencies were their beliefs that teaching is effective when there is teacher-student interaction, enjoyment and appreciation in learning and when students relate with other students, as expressed in the following exemplars:

Teaching is effective when...

"...there is a good rapport between the pupils and the teachers"

"...there is good communication and interaction between the teachers and students"

This finding was reinforced through the focus group discussion and interviews with the participants revealing that teaching is effective when students engage themselves in activities to the point of discussing the concepts along the corridors or even at the canteen. Furthermore, they disclosed that effectiveness is evident in the learners' capacity to apply the concepts within and outside the classroom; when students demonstrate evidence of their learning by performing increasingly complex tasks as measured through various assessment tools; when the learning objectives are attained; and when students are able to retain important learning concepts.

Another dimension of quality teaching is on teachers' professional competence. To them, effective teaching entails using appropriate methodology, promoting students' interest and attention, maintaining a conducive learning environment, and preparing their lessons well. These beliefs are seen in the following statements:

"...the strategies I use make students know the concepts"

"... I invent activities that stimulate students; creativity and imagination."

"... I use different strategies to meet the needs of the pupils"

"...I awaken the students' interest."

"... I can establish a learning environment in which students can broaden and deepen ideas, method, tool, structure, etc."

"...I can make the atmosphere conducive for learning"

"...I adequately prepare my lessons"

During the focus group discussion and interviews, teachers shared similar views that effective teaching is evident when teachers employ methodology suitable to the learners including the use of appropriate technology and communication considering the learners' multiple intelligences and varied learning styles. They also argued that one of the marks of effective teaching is lesson preparation and the establishment of an environment conducive to learning.

The other theme dealing with the nature of teaching includes domains on teaching as building connections between theory and reality. Apparently, this belief was articulated by the teachers during the interviews when they asserted that teaching is effective when ...

"...I can facilitate connection between book-related information and reality, and when examples can make students see connections."

"...I am able to deliver my lesson by giving examples in real life and when I am able to extract experience from the students in relation to the topic."

There were also few teachers who claimed that teaching is effective when it involves lifelong learning. These are seen in the teachers' claims that teaching is effective when:

"teaching is a craft learned over time."

"... I equip myself with lifelong learning."

Teachers' personal qualities are also recognized as a characteristic of quality teaching, such as teachers' integrity and enthusiasm, flexibility and innovativeness. The teachers believe that these qualities are important ingredients to learning as articulated in their responses that teaching is effective when teachers...

"...manifest integrity in their teaching."

"...teach with enthusiasm...develop rapport with students..."

"... consider different kinds of learners in planning"

and implementing instruction."

"... make adjustments considering the context of learning."

"... open to something new."

"... keep myself updated with new trends in learning."

Discussion

The prominence of learner-centered beliefs among the teachers is evident in the four themes identified in this current study. This belief points to some aspects of Weimer's (2002) model of learner-centered teaching which considers instructors as facilitative rather than didactic, and when students take responsibility for their learning. Such finding is also in consonance with the contention of Alton-Lee (2003) when she espoused that effective teaching is being responsive to student learning processes; entails scaffolding and providing appropriate feedback on students' task engagement; and promotes learning orientations, student self-regulation, metacognitive strategies and thoughtful student discourse.

Apparently, the importance of active engagement is congruent with what educators espoused that such engagement helps students process and retain information which eventually develops the skills of "self-questioning, deeper thinking and problem solving...moving the brain into active and constructive learning" (Lorain, 2012);thus reflecting the constructivist view of learning (Bruner, 1967; Dewey, 1916; Piaget, 1954) as cited in Coffey (2009). Active engagement is one of the most important predictors of success and is an indicator of effective teaching (Staub and Stern, 2002; Prince, 2004).

The emergence of professional competence as a theme in this study resonates with the findings of a qualitative study on good teaching conducted among Filipino teacherswhich revealed that one of the constructs of good teaching is teaching competence-based disposition which entails pedagogical knowledge and skills, use of varied instructional strategies, and setting appropriate learning environments among other indicators (Orosa, 2008).

Moreover, connecting to life's broader realities provides students the opportunity to apply their learning, which teachers acknowledged as an indicator of effective teaching along with the theme on student learning behavior. This finding is in consonance with the finding of Marek and Laubach (2007) which revealed that realistic opportunities made the

students link theory to actual practice in a science education class.

The belief on the prime importance of lifelong learning implies that teachers recognize the need for continuous growth in their profession enabling them to "sustain and improve their skills, knowledge and attitudes across the lifespan as they integrate new experiences and adapt to new situations (Añonuevo, Ohsako and Mauch, 2001). Lifelong learning implies love of learning, risk taking, persistence, openness, self-growth, self-actualization, the development of self-efficacy, skill development, knowledge acquisition, and creativity development (Añonuevo et al, 2001; Dunlap & Grabinger, 2003).

The theme on teachers' personal qualities, which entails teachers' integrity, enthusiasm, flexibility, and innovativeness are in consonance with the study of Gurney (2007) who acknowledged that effective teaching includes teacher's knowledge, enthusiasm and responsibility for learning. It likewise resonates with the findings of Orosa (2008) which revealed that dispositional and personality-related traits, which covered caring and concern for others' welfare, ethical conduct and integrity, commitment to the profession and other related themes are teachers' conceptions of good teaching. However, in this present investigation, the findings only pointed to the qualities of integrity, enthusiasm, flexibility and innovativeness which are important components of effective teaching.

Apparently, the current study reveals the various dimensions of effective teaching as seen in students' learning behavior, teachers' professional competence, nature of teaching and teachers' personal qualities. Each does not operate in isolation, but all dimensions are seen as interrelated in what makes teaching effective. These dimensions are predominantly learner-centered beliefs. In a nutshell, Figure 1 illustrates the model of effective teaching as espoused by the teachers.

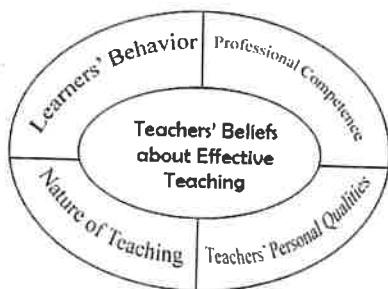


FIGURE 1: Model of Teachers' Beliefs about Effective Teaching

Even if there were identified themes related to the teacher and the nature of teaching, the end goal is directed to the welfare of the learners. As such, this phenomenon points to the predominance of learner-centered beliefs among the teachers. This finding is congruent with the concept of Mawhiney, et al. (2002) that learner-centered teachers use different types of methods that "shift the role of the instructors from givers of information to facilitating student learning, with students taking responsibility for their learning."

Although this model of effective teaching is not exhaustive, it highlights the belief of teachers on effective teaching, guiding them in their practice (Borg, 2011) as "world views, and mental models that shape their learning and teaching practices" (Ernest, 1989, p. 250; Aguirre and Speer, 2000). In the light of these findings, the learners' behavior, teachers' professional competence, nature of teaching and the teachers' personal qualities are important operational principles of effective teaching.

It is, therefore, imperative that teachers hone their skills in facilitating the development of students' desirable learning behaviors, their professional competence including their personal qualities, and reflect on teaching as building connections and as lifelong learning.

Results of this study have some implications on the need to verify if the teachers' espoused beliefs match their instructional practice. Findings also have a bearing on coming up with responsive instructional development programs for faculty to enhance their teaching effectiveness. Future research directions may take the form of development of scales or measures of effective teaching based on the prevailing themes in this study.

References

- Aguirre, Julia & Speer, Natasha M. (2000) Examining the relationship between beliefs and goals in teacher practice. *Journal of Mathematical Behavior*, 18 (3), 327±356 ISSN 0732-3123. Elsevier Science Inc., University of California, Berkeley, CA, USA @ <http://www.transitionmathproject.org/pro-development/10summer-institute/doc/aguirre-article.pdf>
- Alton-Lee, Adrienne (2003, June) *Quality teaching for diverse students in schooling: best evidence synthesis iteration (BES)@* <http://www.educationcounts.govt.nz/publications/series/2515/5959>
- Añonuevo Carolyn Medel, Ohsako, Toshio and Mauch, Werner (2001) Revisiting lifelong learning for the 21st Century.UNESCO Institute for Education @ <http://www.unesco.org/education/uie/pdf/revisitingLLL.pdf>

- Basturkmen, H., Loewen, S., & Ellis, R. (2004). Teachers' stated beliefs about incidental focus on form and their classroom practices. *Applied Linguistics* 25 (2), 243-272.
- Borg, M. (2001). *Teachers beliefs*. *ELT Journal*, 55 (2), 186-188.
- Bruner, J. (1967). *On Knowing: essays for the left hand*. Boston: Harvard University Press.
- Dewey, J. (1916). *Democracy and Education*. New York: Simon and Schuster.
- Calderhead, James. (1996). *Teachers' beliefs and knowledge*. David C. Berliner & Robert C.
- Calfee (Eds.), *Handbook of educational psychology* (pp. 709±725). New York: Macmillan.
- Coffey, Heather (2009) *Discovery learning* @ <http://www.learnnc.org/lp/pages/5352>
- Deemer, Sandra (2004) Classroom goal orientation in high school classrooms: revealing links between teacher beliefs and classroom environments *Educational Research Volume 46, Issue 1* @ <http://www.tandfonline.com/doi/abs/10.1080/0013188042000178836>
- Donaghue, H. (2003) *An Instrument to elicit teachers' beliefs and assumption* *ELT Journal*
- Dunlap, J.C., & Grabinger, R.S. (2003). Preparing students for lifelong learning: a review of instructional methodologies. *Performance Improvement Quarterly*, 16(2), 6-25.
- Ernest, P. (1989). *The knowledge, beliefs and attitudes of the mathematics teacher: a model*. *Journal of Education for Teaching* 15(1), 13-33.
- Ertmer, P. A. (2001). Responsive instructional design: scaffolding the adoption and change process. *Educational Technology*, 41(6), 33-38.
- Ertmer, P. A. (2005). Teacher pedagogical beliefs: The final frontier in our quest for technology integration *Educational Technology Research and Development*, 53(4), 25-39.
- Farrell, Thomas & Lim, Po Choo Patricia (2005, September) *Conceptions of grammar Teaching: a case study of teachers' beliefs and classroom practices*. *Teaching English as a Second or Foreign Language* Volume 9, Number 2 @ <http://www.cc.kyoto-su.ac.jp/information/tesl-ej/ej34/a9.pdf>
- Gurney, Philip (2007) *Five factors for effective teaching*. *New Zealand Journal of Teachers' Work*, Vo. 4, Issue 2, 89-98
- Kane, R. G., Sandretto, S., Heath, C. (2002) Telling half the story: A critical review of the research into tertiary teachers' beliefs, *Review of Educational Research*. 72(2), 177-228.
- Lorain, P. (2012) *Teaching that emphasizes active engagement: improving learning for Middle School Students*. National Education Association @ <http://www.nea.org/tools/16708.htm>

- Marek, Edmund & Laubach, Timothy (2007). "Bridging the gapbetween theory and practice: a success story in science education" in bridging theory and practice in teacher education. *Bold visions in education research*Vol 12 Taipei: Sense Publications retrieved @
<http://www.sensepublishers.com/catalog/files/90-8790-029-5.pdf>
- Mawhinney, Hanne; Frusciante Angela; Philbert Aaron, Philbert and Yan Liu, Yan (2002, November) *Design principles for learner-centered schools: building effective strategies for addressing the achievement gap* Center For Education Policy And Leadership (Cepal) The University Of Maryland @
<http://www.education.umd.edu/EDPL/papers/mawhinney.pdf>
- McCombs, Barbara (2000). *Assessing the role of educational technology in the teaching and learning process: a learner-centered perspective*University of Denver Research Institute, in Secretary's Conference on Educational Technology @
[http://www.ed.gov/rschstat/eval/tech/techconf00/mccombs_paper.html]
- Mira, Raquel (2008) *Teachers' beliefs regarding effective teaching strategies for American Indian students in mathematics*.adissertation presented to Montana State University @
[http://etd.lib.montana.edu/etd/2008/vallines_mira/Vallines_MiraR0808.p df](http://etd.lib.montana.edu/etd/2008/vallines_mira/Vallines_MiraR0808.pdf)
- Orosa, A. (2008) Inquiring into Filipino teachers' conception of good teaching: a qualitative research study.*The Asia-Pacific Education Researcher* 17:2 pp. 157-171
- Piaget, J. (1954). *To understand is to invent*. New York: Grossman.
- Prince, Michael (2004) When do students learn? Teachers' conception of student learning: a phenomenographic study*Journal of Engineering Education*
- Staub & Stern (2002) as cited in creating effective teaching and learning environments: first results fromTeaching and Learning International Survey (TALIS) by Organization for Economic Cooperation and Development (OECD) 2009
- Sin, Samantha (2010) *Considerations of quality in phenomenographic research*.Department of Accounting and Corporate Governance Macquarie University, Australia@
<http://creativecommons.org/licenses/by/2.0>
- Weimer, M. (2002), *Learner-centered teaching: five keychanges to practice*, Jossey-Bass.