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## **REFLECTIVE THINKING AND TEACHING PRACTICES: A PRECURSOR FOR INCORPORATING CRITICAL THINKING INTO THE CLASSROOM?**

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The concept of reflective thinking as a precursor for incorporating critical thinking has been not been adequately researched. Most research has not given any effective strategies on how to incorporate these two concepts. There is a constant need to incorporate critical thinking into the classroom without much success. This study will attempt to show a link between reflective thinking and its ability to stimulate critical thinking. Teachers often perceive that critical thinking skills need to be taught, however research has shown that they may not know how to do this effectively. The use of reflective thinking may be a precursor to stimulating critical thinking in teachers. The research questions are on the reflective thinking skills of teachers and how they perceive themselves and their teaching. In this study a total of 60 participants from institutions of higher learning volunteered to answer a questionnaire to determine the level at which they reflected on their teaching practices as an indicator of their level of critical thinking. It was found that most of the teachers did not reflect deeply on their teaching practices. They did not seem to practice the four learning processes: assumption analysis, contextual awareness, imaginative speculation and reflective scepticism which were indicative of reflection. It would suggest that critical thinking is practised minimally among teachers. Further research need to be carried out on how to bring about reflective practices among teachers and how it would enhance the quality of lessons in terms of critical thinking.

**Key Words:** reflective thinking, critical thinking, teaching practices, pedagogy, teaching, quality of lessons, teacher reflection

## **INTRODUCTION**

There has been a concerted effort among universities and institutions of higher learning to incorporate critical thinking into their curriculum. However, as evidenced by researches (Choy & Cheah, 2009; Rudd, 2007; Black, 2005; Vaske, 2001), students may not be able to think critically because their teachers are not able to integrate critical thinking sufficiently into their daily practice as it requires a certain amount of reflection. Added to this, critical thinking is equated to higher order thinking skills of Bloom's Taxonomy: analysis, synthesis and evaluation (Bloom, 1976) and teachers find difficulty incorporating these levels into their lessons (Choy & Cheah, 2009).

Therefore, this paper attempts to determine if teachers are practicing reflective thinking in their teaching. This is seen as a means to enhance critical thinking. The study also attempts to determine how teachers perceive themselves and their teaching practices as this is also indicative of the amount of reflective thinking they do. Reflective thinking (Dewey, 1933) is thought to enhance critical thinking. It is part of the critical thinking process specifically referring to the processes of analysing and making judgments about what has happened.

Learners who think reflectively become aware of and control their learning by actively accessing what they know, what they need to know and how they bridge that gap (Sezer, 2008). Therefore, critical thinking involves a wide range of thinking skills leading towards desirable outcomes and reflective thinking helps to integrate these thinking skills by helping with judgments (Shermis, 1999). An important role of reflective thinking is to act as a means of prompting the thinker during problem solving situations because it provides an opportunity to step back and think of the best strategies to achieve goals (Rudd, 2007). Therefore teachers who are able to use reflective practices will themselves be more attuned to using this strategy to help students think critically (Shermis, 1999).

### **Teacher Reflective Thinking Practices**

According to Boody (2008), teacher reflection can generally be characterized as: retrospection, problem-solving, critical analysis and putting thoughts into action. For this review, we have integrated the theoretical frameworks by Boody (2008), Hamilton (2005) and Schon (1987) and will discuss reflective thinking based on the following characteristics: a) reflection as retrospective analysis, b) reflection as problem solving, c) critical reflection of self, and d) reflection on beliefs about self and self-efficacy. Each of these will be discussed in turn.

*Teacher reflection as retrospective analysis (ability to self-assess).*

This approach takes reflection as bending thoughts to incorporate prior experiences and how these experiences could influence the current practices of teachers. This retrospective analysis also includes the ability to self-assess.

*Teacher reflection as a problem solving process (awareness of how one learns)*

Teacher reflection can be thought of as taking necessary steps to analyse and articulate problems before taking action. This allows for more constructive action to be taken rather than implementing a quick fix (Boody, 2008). The challenge is to be able to demonstrate in action what is taught in the classroom. Many teachers fail to connect between their teaching and what they are actually practicing and vice versa (Rudd, 2007).

*Critical reflection of self (developing continuous self improvement)*

According to Brookfield (1988), in order to be critically reflective, there are four learning processes that can be engaged: assumption analysis, contextual awareness, imaginative speculation, and reflective scepticism. Assumption analysis describes activities that bring about contextual awareness. This is the way teachers perceive the realities which govern their behaviour and relationships (Stein, 2008). Imaginative speculation provides alternative ways of acting thereby challenging existing methods (Cranton, 1996). The outcome of the above three learning processes is scepticism, the questioning of unexamined patterns of interaction (Lord & Lormicka, 2007).

In summary, critical reflection can be thought of as the process of analysing, reconsidering and questioning experiences within a broad context of issues like ethical practices, learning theories and use of technologies (Boody, 2008). The assumptions that individuals hold are subject to distortions and may limit their views of reality.

*Reflection on beliefs about the self and self-efficacy*

According to Authors (2007), the feelings and beliefs that teachers have towards themselves and others will play a part in how they teach and Williams and Burden (1997), noted that teachers are highly influenced by their beliefs, which are closely linked to their values and their world views. These beliefs were found to be more effective than knowledge in influencing how individuals organize tasks and problems and were better predictors of how teachers behaved in the classroom (Pajares, 1992). Apart from this, self-efficacy also plays an important part in determining the reflective practices of teachers. According to Markley et al (2009) the major factor that determines teaching

effectiveness is the intrinsic motivation to be a good educator. Added to this, Ball (2009) noted that teachers with high self-efficacy are those that have high metacognitive awareness of themselves and can change the strategies they are using to attain their intended goals. Ball and Lardner (1997) also noted that there are many variables that contribute to teacher efficacy, including prior experience in different settings, available resources, and teachers' visions of themselves as social agents of change. Teachers with high self-efficacy believe that all students can be motivated and are willing to explore with students, tasks that will hold their attention in the learning process.

### **The Present Study**

Many articles have highlighted that critical thinking is social in nature and requires reflection on the part of the learner. However, it must also be noted that how reflective teachers are toward their lessons would also influence students' critical thinking skills. As such the current investigation focuses on the reflective practices of teachers when planning their lessons, the perceptions these teachers have of themselves, their students and their work. It attempts to study the reflective practices of teachers and how it influences their teaching.

The research questions underpinning this study are:

- 1) Are teachers practicing reflective teaching?
- 2) How do teachers think of themselves and their teaching practices?

The investigation was carried out using both the quantitative as well as the qualitative approach, with a sample of lecturers from institutions of higher learning in Malaysia.

### **METHOD**

The research questions led us to the use of both the interpretive approach as well as statistical analysis of the data obtained in order to provide richer answers to the research questions unpinning this study. In the interpretive approach, the individual constructs personal meaning when they grapple with the environment around them to make it meaningful (Radnor, 2002), implying the need for an in depth and insightful analysis of data. Statistical analysis was used in our attempt to get a more generalized understanding of the data obtained and to look for general trends (Cohen et al, 2000) among the participants.

#### *Design and Procedure*

A questionnaire with a Likert scale was used to generate data in this investigation. The questionnaire consists of 33 questions where participants

were asked to rate on a scale of 1-5(1=strongly disagree and 5=strongly agree). See Table 1 below.

Table 1. Questionnaire for Reflective Thinking for Teachers

Dear Participant,

Please circle the statements that describe the way you think about your teaching practice on a scale of 1 to 5, with:

5: indicating that you strongly agree

4: agree with reservations

3: you are neutral about the statement

2; disagree with reservations

1: strongly agree

There are right or wrong answers. We are only interested in your responses to the questionnaire

<b>Ability to self-assess</b>							
Observing own performance							
1	I always think of what I had done during my lessons so that I can improve on it further.	(A)	5	4	3	2	1
2	I tend to follow orders rather be innovative because I do not want to get in trouble.	(I)	5	4	3	2	1
3	I try to think of what I teach my students in terms of my own area of discipline so as to enhance my lesson.	(In)	5	4	3	2	1
Using feedback and evidence							
4	I feel very anxious about feedback given to me by students, it is as though they are evaluating and judging me as a person.	(I)	5	4	3	2	1
5	I think student's feedback is important as it will help me understand them better.	(In)	5	4	3	2	1
6	I feel that students' feedback is important as this would give me an indicator of the areas of my strengths and weaknesses.	(A)	5	4	3	2	1
Finding and analysing patterns							
7	I always think that what and how I did during my lesson is an important indicator of my effectiveness.	(I)	5	4	3	2	1
8	I know that in a lesson there are many areas, like content and context that can make or break a lesson.	(In)	5	4	3	2	1
9	I always try to look for areas of connectivity between what and how I teach with my life experiences.	(A)	5	4	3	2	1
Making judgments							
10	Whenever I am faced with a mistake that I have made I try to make connections and learn from my experience and then use it to move forward.	(A)	5	4	3	2	1
11	I know I make mistakes but sometimes I feel I cannot do anything about it.	(I)	5	4	3	2	1
12	As a teacher I know that the mistakes I make can have an influence on the lives of my students.	(In)	5	4	3	2	1

<b>Awareness of how one learns</b>						
Concepts and misconceptions						
13	When students give me feedback I do not take it much into consideration because I feel that it is just their opinions anyway. I do not worry about it as long as I feel I am doing my job.	(I)	5	4	3	2 1
14	I think that it is important that I take students' feedback into consideration as that will help me improve on what I am doing now so that I will perform better in the future.	(In)	5	4	3	2 1
15	I like to take into consideration my past performance and integrate it with what I am doing in the present to help me better prepare for the future.	(A)	5	4	3	2 1
Knowledge construction						
16	I am only interested in getting my assigned classes done properly, I basically do not have the time or interest in talking to my colleagues about their strategies and goals for their classes.	(I)	5	4	3	2 1
17	I like to know how I do in my teaching, so every opportunity I get I want feedback from my supervisors so that I can improve the way I deliver my lessons.	(In)	5	4	3	2 1
18	Students learn very differently from when I was in school, I need to look into new strategies to better deliver my lessons so that I can remain relevant now as well as in the future.	(A)	5	4	3	2 1
Metacognition						
19	I have a certain way of delivering my lessons that I am comfortable with, I do not know why I do it the way I do it, I just do.	(I)	5	4	3	2 1
20	I am always interested in self discovery so that I can apply the knowledge to how I do things and perhaps hone myself to be a better teacher.	(In)	5	4	3	2 1
21	I try to reflect on what I do during my lessons so that I can enrich the strategies I use with new and more effective ones. Sometimes I can get inspirations by talking to my colleagues from other fields.	(A)	5	4	3	2 1
<b>Developing lifelong learning skills</b>						
Developing identity as a learner						
22	Sometimes the feedback I get from my students and supervisor are so confusing I do not know what to make of them, I do not think it is actually going to help me learn anything about the way I conduct my lessons.	(I)	5	4	3	2 1
23	I know I am still learning to be a better teacher and the feedback I get from students and supervisors could be helpful in improving my future performance	(In)	5	4	3	2 1
24	I know that I am learning about my profession all the time and I have already a set of practices which I am comfortable with, although the feedback I get from students and my supervisor will help me improve those practices even more.	(A)	5	4	3	2 1
Transferring learning to other contexts						
25	I generally get good comments from students so I think I am doing quite well as a teacher overall.	(I)	5	4	3	2 1
26	I know that all feedback are just opinions of others about me. There must be some truth in what they see, if not they will not make them. I need weigh the feedback I get against some of	(In)	5	4	3	2 1

the opinions and assumptions I have about myself.						
27	I know I make assumptions about a lot of things and when others give me their opinions about how I am teaching I must put it into perspective. After all I can learn from all the feedback I get.	(A)	5	4	3	2 1
Understands learning as a lifelong process						
28	I know what I am doing as a teacher and I do not spend much time reflecting on my practices as a teacher.	(I)	5	4	3	2 1
29	I know I have my strengths and weaknesses and teaching is a difficult job to carry out. I need to constantly look at my practices in order to be more effective with my lessons.	(In)	5	4	3	2 1
30	I know how I present my classes will influence how my students will behave towards the subject. Every time I present a class I need to be cognizant that I need to reflect on how I have taught and make changes the next time if necessary.	(A)	5	4	3	2 1
<b>Influence of Belief about Self and Self-Efficacy</b>						
Developing a personal belief system						
31	I believe that I need to take care of my own needs first before I can take care of other people's needs.	(I)	5	4	3	2 1
32	I know that what I believe about myself and others will ultimately control my behaviour.	(In)	5	4	3	2 1
33	I am aware of my beliefs and know that these beliefs will influence my behaviour towards myself and others.	(A)	5	4	3	2 1
A = Advance			In = Intermediate			I= Introductory

The topics for the questionnaire were created based on research by Hamilton (2005) on the development of reflective thinking. The statements cover three major areas of development; ability to self-express, awareness of how one learns and developing lifelong learning skills. We decided to add another area perceived as important, influence of belief about self and self-efficacy. Each of the four areas of development was further broken down into sub-sections. (See Table 1). The statements on the questionnaire were structured to express the four areas of development and then categorized to reflect the levels: Introductory (I), Intermediate (In) and Advanced (A). Introductory level statements (I) mean that generally a teacher seldom reflects on his or her practices and would likely just follow orders. The intermediate level statements (In) mean that a teacher sometimes reflect on his or her teaching practices but not on an in-depth level. The advanced level statements (A) mean that a teacher reflects deeply on his or her practices and is constantly making efforts to improve them. The level of the statements is shown on the questionnaire. The questionnaire was piloted on 10 volunteers and adjustments made to statements that were unclear.

### *Participants*

The sample taken for this study is made up of teachers from institutions of higher learning throughout Malaysia. All the participants gave their informed



consent to participate in the study; in addition to this we did not ask them to reveal their name, domicile or gender in order to safeguard their anonymity. They were asked during the teacher development workshops conducted by us in a year and also through e-mails. A total of 71 participants were asked and 60 responded, all on a voluntary basis. The teachers came from various disciplines. Because part of the study is grounded in the interpretive approach, total objectivity and neutrality of the data cannot be claimed. Although the results may only be directly relevant to a Malaysian population they could provide relevant information to other populations in similar situations.

## RESULTS

Analysis of the data was done using the frequency of responses to each of the 1-5 scale on the questionnaire. The results were used to answer the two research questions (RQ). Only responses with a rating of 5 (strongly agree) will be discussed. Table 2 shows a summary of the frequency of responses for each statement.

Table 2. Data analysis – According to the level (Introductory, Intermediate and Advanced)

### *Introductory Level*

Statement Option	S3 (%)	S5 (%)	S8 (%)	S12 (%)	S14 (%)	S17 (%)	S20 (%)	S23 (%)	S26 (%)	S29 (%)	S32 (%)	Total	Total %
5	22	15	27	17	13	19	8	12	0.2	0.1	0.6	<b>217</b>	<b>32.3</b>
4	6	10	8	10	10	8	8	13	6	12	8	<b>253</b>	<b>37.7</b>
3	4	7	3	13	6	3	10	3	15	20	18	<b>124</b>	<b>18.5</b>
2	0.5	1	0.5	0	20	0.5	5	0.5	33	5	15	<b>51</b>	<b>7.6</b>
1	1	0	2	1	1	3	3	2	7	0	1	<b>21</b>	<b>3.1</b>
		m 2	m 1	m 1						m 1		<b>5</b>	<b>0.8</b>
												<b>671</b>	<b>100</b>

### *Intermediate Level*

Statement Option	S2 (%)	S4 (%)	S7 (%)	S11 (%)	S13 (%)	S16 (%)	S19 (%)	S22 (%)	S25 (%)	S28 (%)	S31 (%)	Total	Total %
5	15	15	0.6	20	19	0.2	0.1	0.6	10	20	16	<b>209</b>	<b>31.1</b>
4	21	25	7	28	22	12	8	12	27	18	25	<b>205</b>	<b>30.6</b>
3	9	4	11	4	2	8	30	20	10	4	4	<b>106</b>	<b>15.8</b>
2	2	0	19	1	1	18	13	18	5	0	1	<b>78</b>	<b>11.6</b>
1	1	2	20	3	1	19	8	10	0	3	2	<b>69</b>	<b>10.3</b>
		m 1	m 1		m 1				m 1			<b>4</b>	<b>0.6</b>
												<b>671</b>	<b>100</b>

*Advance Level*

Statement Option	S1 (%)	S6 (%)	S9 (%)	S10 (%)	S15 (%)	S18 (%)	S21 (%)	S24 (%)	S27 (%)	S30 (%)	S33 (%)	Total	Total %
5	20	20	2	1	14	16	10	6	14	5	9	<b>187</b>	<b>27.9</b>
4	20	14	10	13	29	22	29	25	24	31	30	<b>247</b>	<b>36.8</b>
3	3	23	21	19	2	7	11	19	5	14	12	<b>136</b>	<b>20.3</b>
2	1	13	18	15	2	0	2	6	4	4	1	<b>66</b>	<b>9.8</b>
1	1	5	9	8	2	2	1	1	2	1	1	<b>33</b>	<b>4.9</b>
			m l							m l		<b>2</b>	<b>0.3</b>
												<b>671</b>	<b>100</b>

Note: m= no response

*RQ1. Are teachers practicing reflective teaching?*

The results obtained from the analysis of two sections: ability to self-assess and awareness of how one learns was used to answer this research question. It was found in each of the sub-sections that teachers were generally more concerned about their own performance in their discipline rather than enhancing their teaching by reflecting on their practices.

*Ability to self-assess**Observing Own Performance*

There were 22% who rated Statement 3 as 5 on the scale. This seemed to show that teachers were more concerned about their own area of discipline and performance. The second highest response is for Statement 1 where 20%, rated at 5. The teachers were also concerned about reflecting on their performance in their lessons and how to improve it. In total, only about 20% of the respondents seemed to be concerned with their own area of discipline and at the same time wanting to provide continued improvements in their teaching. About 15% rated Statement 2 as a 5. These teachers seemed concerned about following orders so as not to get into trouble.

*Using Feedback and Evidence*

A total of 15% rated Statement 4 a 5. The teachers felt that they were being judged by their students. Another 5% rated statement 5 a 5. They perceived that student's feedback was important as it helped them teach better.

*Finding and Analysing Patterns*

About 20% of the responses to Statement 6 were rated as 5. The teachers viewed that quality would be determined by the content and context of a lesson. It is interesting to note that less than 1% of the responses agreed with Statements 7. The teachers did not perceive that what they did during their lessons was an important indicator of their effectiveness. They also did not

perceive that their teaching was affected by life experiences. This would imply that they held life experiences as separate from their work as teachers.

#### *Making Judgments*

About 20% of the responses to statement 11 were rated as 5. The teachers perceived that they are helpless about making mistakes and they were not able to do anything about it. Many did not agree with Statement 10 that they could learn from their mistakes and move forward, there were only 1% that strongly agreed with the statement.

#### *Awareness of How One Learns*

##### *Concepts and Misconceptions*

19% rated Statement 13 a 5. They did not seem concerned about students' feedback as long as they perceived they were doing their jobs. 14% rated Statement 15 a 5. They seemed open to learn from past experiences and were willing to use it to help improve their lessons. 13 % rated Statement 14 a 5. They perceived student feedback as important in helping them enhance their lessons.

##### *Knowledge Construction*

There were 19% that rated Statement 17 a 5. There was an expressed need for guidance from a supervisor to help point out problems they are having with their lessons. 16% of them rated Statement 18 a 5. They understood that students learned differently and needed to look into new strategies to deliver their lessons. It is interesting to note that very few rated statement 16 a 5. They did not perceive themselves as only wanting to get the job done.

##### *Metacognition*

About 10% of the responses rated Statement 21 a 5. The teachers seem to be open to reflecting on what they had done in their lessons and exploring strategies to help them teach better. About 8% of the responses rated Statement 20 a 5. They also seemed open to using self-discovery to help them hone their skills when teaching.

## **DISCUSSION**

The results indicate that that a majority of the teachers were self-assessing only to ensure that they were doing their jobs properly. There was no indication that they wanted to improve in their own performance in order to enhance and enrich student-learning. Ball (2009) noted that in order for teachers to become reflective of their teaching practices they must be motivated to change their teaching strategies when needed. Further to this, the results indicated only a few

of teachers that were interested in continued assessment of their own discipline. They seemed ambiguous about using feedback from students to improve their lessons. They knew the importance of getting feedback but at the same time felt that they could not trust the feedback given which could provide valuable insights for them to learn about themselves. They did not seem able to carry out reflection-on-action as suggested by Schon (1987).

The results obtained for finding and analysing patterns seem to support the finding that these teachers did not value feedback from students. They did not connect between what they did in the classroom and how it could influence student performance. The findings for Making Judgments seemed to further support this. They did not agree that they could learn from mistakes and move forward. This did not seem to support research by Boody (2008) and Rudd (2007) which suggests that reflection is a necessary part of the process to analyse and articulate problems and make a connection with what they did in the classroom.

It is interesting to note however, that in the Awareness of How One Learns section, about 40% of teachers indicated that they were willing to learn from their mistakes. This is contrary to the previous section on Ability to Self-Assess. Added to this, they did not seem intrinsically motivated to improve as they perceived they needed feedback from supervisors. This finding implies that they are not reflective about their own teaching practices and required external support and direction. Although some of them were open to using past experiences to help them improve, it is questionable whether they are actually reflecting on them. They seemed to have assumptions about how to conduct their lessons and how to relate to their students. They also did not seem to follow the four learning processes as suggested by Brookfield (1988).

The overall responses to the statements on the questionnaire showed a higher frequency for the introductory and intermediate levels except for three: concepts and misconceptions, knowledge construction and metacognition. In these three categories the advance statements had the most responses. This could be because the teachers thought it was important they learned from the past to help enhance their performance. Added to this, they perceived that students learned differently and needed new strategies in their teaching. However, this is contrary to their responses on using student feedback to help them reflect as they did not perceive the feedback as helpful and thought them judgmental.

Generally, based on the results, it would seem that teachers were using reflective thinking to enhance the quality of their teaching, but for many it was in terms of personal performance and expectations rather than as a tool for

social changes (Ball, 1997). They were not open to the idea of using feedback as part of the assessment criteria (Hamilton, 2005) to develop their reflective thinking practices. They may not see a connection between what they are teaching and practicing (Rudd, 2007) with helping them be more reflective practitioners.

*RQ 2. How do teachers think of themselves and their teaching practices?*

The results were obtained from the analysis of two sections developing lifelong learning skills and influence of belief about self. It was found in each of the sub-sections that teachers generally accepted the idea that they were still learning to develop their skills. However, it is interesting to note that in general, teachers were of the opinion that they needed to put their own needs as priority.

*Developing lifelong learning skills*

*Developing identity as a learner*

12% rated Statement 23 a 5. The teachers were of the opinion that they were still learning to be better teachers and were open to getting feedback from supervisors and students. Only 6% of the responses rated Statement 24 a 5, perceived they had established practices they were comfortable with and they were open to feed back from their students and supervisors to help them improve these practices more.

*Transferring Learning to Other Contexts*

About 14% rated Statement 27 a 5. The teachers seemed to be aware that they made assumptions about many things and should put feedback from others in perspective and learn from them. 10% of the teachers responded to Statement 25 with a rating of 5. They perceived that they were doing well because the overall comments from students were positive.

*Understands learning as a lifelong process*

About 20% rated Statement 28 a 5. They did not seem to spend time reflecting on their practices as a teacher. Only 5% of the responses rated Statement 30 a 5. These teachers were aware that their actions will have an influence on how their students responded to them in their classes and realize that reflection of their practices were important. Only 0.1% of the responses rated Statement 29 a 5. They knew they had strengths and weaknesses which needed constant reviewing to be more effective.

*Influence of Belief about Self**Developing a Personal Belief System*

16% of the responses rated Statement 31 a 5. The teachers believed that they needed to take care of their own needs first. 9% of the responses rated Statement 33 a 5. The teachers were aware that their beliefs would influence their own behaviours towards others.

The results seem to indicate that teachers were not interested in developing their identity as a learner that is to become aware of how they learn and their assumptions. Many of the teachers were not aware of the importance of developing this identity and how it could influence the way they taught. According to Lord and Lomicka (2007), the assumptions that teachers have about learning are often culturally and historically driven, as such this could influence the next generation. This results in a cycle whereby, methods of learning are passed on from teacher to student without reflecting on its effectiveness.

There were only a small percentage of teachers who responded that they had awareness of their assumptions and how these could influence the way they teach. It is also interesting to note that these teachers felt that as long as the comments were positive they were doing well. Most of them also perceived there is no need to reflect on their teaching practices. This implies that they did not perceive teaching as a lifelong learning process and that improvements needed to be made from time to time; and perhaps looked at the profession as a means to financial security rather than helping them be more effective individuals.

In the Influence of Belief About Self and Self-efficacy section, many teachers believed they needed to put their own needs as priority. This would imply that they may not have the self-efficacy that helped them be reflective practitioners which could result in them not taking on personal responsibility to develop themselves. This would be in line with the findings of Sezer (2008) that learner need know how to bridge the gap between what they know and what they need to know in order to develop into reflective thinkers.

The overall responses to the statements were at the introductory and intermediate levels in most of the categories with the exception of transferring learning to other contexts which had more responses in the advanced category. The teachers in general seemed interested in developing themselves but were not interested in reflecting on their teaching skills. They indicated their willingness to getting feedback from their supervisors and students. However this contrasts their responses on not taking students' feedback seriously. Added

to this they did not seem to perceive that their own assumptions were important and influenced their teaching. According to Lord and Lomicka (2007), these assumptions could be culturally and historically driven and teachers need to be able to reflect on these assumptions in order to challenge their existing reality (Cranton, 1996).

The teachers were satisfied with getting good comments from students and perceived that such comments showed they were competent in what they were doing. The teachers seemed interested in developing themselves but putting this interest into action may be questionable. This is reflected by the contradictory manner in which they responded to the statements on the questionnaire.

### **CONCLUSION**

The results showed that teachers were on the whole not critically reflective as their responses did not show that they actively practiced the four learning processes: assumption analysis, contextual awareness, imaginative speculation and reflective scepticism which according to Brookfield (1988) were indicative of such practices. They were more interested in how they were assessed by their students and superiors although there was ambiguity towards the value of feedback from students. This would imply that they had problems with accepting assessments from individuals they perceived as subordinate to them. This could hinder them from improving their teaching in the classroom. It would be interesting if further studies could be carried out to determine the perceptions these teacher have of their students and their superiors.

These teachers also held many perceptions about learning, their students and superiors that were not reflected on. They seemed to teach and conduct themselves based on these perceptions. This could decrease the efficacy of their lessons. However, this study did not investigate in-depth the perceptions these teachers held about learning and their own self-worth. Further investigation on these perceptions and how it influences the strategies used in the classroom and student-teacher communication needs to be carried out.

According to Sezer (2008), in order to become reflective thinkers, awareness of what is known and what is needed is essential to bridging the gap between learning situations. It is interesting to note that these teachers perceived that getting feedback from students is like being judged by them. This is also reflected in their belief that they must give priority to their own needs. They seemed to be more interested in maintaining their own perceived sense of self-worth and self-efficacy rather than using the comments by students as a means to help them improve. This implies that they do not have high metacognitive awareness of their own strengths and weaknesses, which according to Ball (2009) could help identify barriers to learning and changing strategies to attain

goals. Such beliefs would also influence to way they teach (Authors, 2007, Williams & Burden, 1997). Further research needs to be carried out to determine if perceptions of self-worth are a consequence of prior experience or is culturally driven.

This study did not address how to bring about the practice of reflective teaching among teachers and how such practices enhanced lessons for both students and teachers. It would also be interesting to further research into the type of reflective practices that would do this.

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