

# Measuring Metaphors: A Factor Analysis of Students' Conceptions of Language Teachers

Larisa Nikitina/Fumitaka Furuoka, Universiti Malaysia Sabah

(corresponding author: larisa.nikitina@gmail.com)

## Abstract

Research studies in the fields of general education and language pedagogy recognize the importance of metaphor as a research tool. Metaphors can help teachers articulate and construct their professional experiences (Kramsch, 2003) and ameliorate the classroom practice (Cortazzi & Jin, 1999). The majority of the previous studies that employed metaphors focused on the teacher-produced images and adopted a qualitative approach to metaphor analysis. The present study departs from this format. It focuses on the student-generated metaphors about language teachers and employs a quantitative analysis to examine the dimensions around which these metaphors align. A questionnaire containing metaphors about language teachers was distributed to 98 students at Universiti Malaysia Sabah. Factor analysis was employed as a research technique to identify the dimensions along which the students' perceptions aligned. The findings of the present paper lend support to the previous attempts at metaphor taxonomy by Oxford et al. (1998) and Chen (2003).

In der Erziehungswissenschaft und Fremdsprachendidaktik gilt die Metapher als ein wichtiges Forschungsinstrument. Metaphern können Lehrern helfen, ihre beruflichen Erfahrungen zu formulieren (Kramsch, 2003) und die unterrichtliche Tätigkeit zu verbessern (Cortazzi & Jin, 1999). Die meisten bisherigen metapherngestützten Studien konzentrierten sich auf die von Lehrern produzierten Bilder und bestanden in einer qualitativen Metaphernanalyse. Von dieser Prämisse ausgehend befasst sich der vorliegende Beitrag mit Metaphern, die von Studenten zu Sprachenlehrern produziert wurden, und verwendet eine quantitative Analyse, um die Dimensionen /Kategorien zu untersuchen, um welche diese Metaphern sich gruppieren. Ein Fragebogen mit Metaphern über Sprachenlehrer wurde an 98 Studenten der Universiti Malaysia Sabah verteilt. Um die Dimensionen/Kategorien, die sich aus den Wahrnehmungen der Studenten ergeben, zu identifizieren, wurde die Technik der Faktoranalyse herangezogen. Damit unterstreicht die vorliegende Studie die Untersuchungen zur Metaphernklassifizierung von Oxford et al. (1998) und Chen (2003).

## 1. Introduction

A considerable number of studies in the fields of general education and pedagogy have employed metaphor analysis as a research tool. For the most part, these studies focused on the pre- and in-service teachers' attitudes towards the classroom practices, teacher-student classroom interaction, and the evolution of the teacher beliefs about teaching and learning (Leavy, McSorley, & Boté, 2007; Bullough, 1991; Dooley, 1998; Knowles, 1994; Mahlios

& Maxson, 1998). One of the aims of these studies has been helping the teachers to articulate and “construct representations of themselves and their experience” (Kramsch, 2003:125) and “to promote awareness of professional practice” (Cortazzi & Jin, 1999:155).

In the field of language pedagogy the importance of uncovering metaphors about language learning and teaching has been recognized and a number of studies have employed metaphor analysis to examine the particularities of the language teaching profession and to describe teacher-student interaction (Cameron & Low, 1999; De Guerrero and Villamil, 2001; Holme, 2003; Oxford, Tomlinson, Barselos, Harrington, Lavine, Saleh, & Longhini, 1998).

The majority of these studies adopted the qualitative approach and focused on the teacher-produced rather than the learner-generated metaphors. On the other hand, research that employs metaphor analysis to examine the students’ perspective on the learning process is rather limited and only a few studies are available (eg., Bozlk, 2002; Nikitina & Furuoka, 2008; Oxford et al., 1998). This is especially puzzling because knowing what images the students have of their teachers is important as these mental representations may contain information about the expectations that the learners have regarding their teachers and organization of the classroom activities. Learners’ metaphors are also informative because they may indicate the modes of behaviour the students’ are likely to adhere to in the classroom.

This study focuses on metaphors about language teachers produced by the language learners. It departs from conventionally employed qualitative approach to metaphor analysis and uses quantitative approach (factor analysis) with the aims to (1) explore the dimensions in the students’ conceptions of the teachers, and (2) assess whether these dimensions support the previous attempts at taxonomy of the education-related metaphors (Chen, 2003; Oxford et al., 1998).

## **2. Background to the Study**

This article reports on a research conducted among students learning a foreign language (Russian) at Universiti Malaysia Sabah (UMS), Malaysia. Malaysia is a multi-ethnic and multi-lingual country and has the population of approximately 28 million people. Its various ethnic groups include Malay

(50.4%), Chinese (23.7%), indigenous people (11%), Indian (7.1%), and others (7.8%). The official language of the country is Bahasa Malaysia (the Malaysian language). Other widely spoken languages are English, various Chinese dialects (eg., Cantonese, Mandarin, Hokkien, Hakka, Hainan, and Foochow), Tamil, Telugu, Malayalam, Punjabi, Iban, Bidayuh, Kadazan, and Dusun.

Universiti Malaysia Sabah (UMS) is a large public university situated in the state of Sabah in East Malaysia. The study of a foreign language (e.g., French, Japanese, Russian, and Spanish) or a local language (e.g., Kadazan-Dusun, Tamil) is compulsory for the UMS students who have good English language proficiency and were able to obtain Bands 4, 5, and 6 of the Malaysian University English Test (MUET). The duration of the foreign language program is four semesters with four contact hours per week at Levels 1, 2, 3, and three contact hours per week at Level 4.

### **3. Literature Review**

#### **3.1 Metaphor as Method**

The word metaphor originates from the Greek word *metapherein* (“to transfer”), where *meta* means “among” and *pherein* means “to bear, to carry”. Therefore, in the English language the word “metaphor” could signify “a transfer of meaning from one thing to another”. Aristotle in his “Poetics” gave the following definition of metaphor: “Metaphor consists in giving the thing a name that belongs to something else; the transference being either from genus to species, or from species to genus, or from species to species, or on the ground of analogy” (*Poetics*, 1457b, as cited in Gibbs, 1994:210).

Nowadays, apart from being a powerful tool of expression and a figure of speech, metaphors are recognized as “a fundamental vehicle of human thought” (Kliebard, 1982:13), an “important tool of cognition and communication” (Ortony & Fainsilber, 1989:181) that reflects “images of social phenomenon” (Morgan, 1983:21) through “mapping two often incompatible domains into one another” (Kramsch, 2003:125). Metaphors possess such invaluable qualities as expressibility, compactness, and vividness and are “better conceptualized as single ideas than as individual words” (Ortony, 1975; Ortony & Fainsilber, 1999:182).

Due to their function in human cognition metaphors can serve as “an important instrument of analysis” (Oxford et al., 1998:45) of everyday human practices and experiences, including the professional experiences. In educational research, metaphors began gaining validity as a research tool when the focus of researchers’ attention shifted from a wider external context of educational practice to everyday realities of the classroom (Jensen, 2006). Narrative case study approach was the prevailing method of the analysis. Researchers collected stories told by teachers on their subjective professional experiences and analyzed their rich metaphorical language (eg., Provenzo, McCloskey, Kottkamp, & Cohn, 1989; White & Smith, 1994).

As a next step, there followed attempts to classify education-related metaphors, including metaphors about teachers (eg., Block, 1992; Herron, 1982, Oxford et al., 1998). Qualitative approach to metaphor analysis remained the prevailing mode of inquiry. In order to identify “thought patterns” embedded in the metaphors, the samples of metaphors were collected together with their entailments, upon which conceptual metaphors were generated (Cameron & Low, 1999:88).

On the other hand, quantitative approach to metaphor analysis has been employed to a much lesser degree. Among the techniques used in some of the studies that investigated the pre-service and in-service teachers’ images of their professional experiences were chi-square (eg., Ben-Peretz, Mendelson, & Kron, 2003) as well as correlation, chi-square, cross-tabs, and regression analysis (eg., Mahlios & Maxson, 1998). Factor analysis has been rarely employed in educational research to analyze metaphors. One of the rare available studies on the topic was done by Grady, Fisher and Fraser (1995) who investigated teachers’ images of their school through metaphors.

Considering a fact that metaphors have been described as possessing “a structure producing” quality (Herron, 1982:236) and that attempts have been done to organize metaphorical images through metaphor mapping, factor analysis could represent a viable approach to metaphor research. Especially, this approach may be useful in assessing the validity of metaphor taxonomies in order to establish cognitive categories and dimensions along which human perceptions on certain subjects are shaped.

### **3.2 Metaphors and Metaphor Analysis in Educational Research**

Several important articles on the philosophy of education have employed metaphors to describe approaches towards and perspectives on education prevalent in the United States of America over the past century (Beck & Murphy, 1993; Greene, 1973; Kliebard, 1982). Cook-Sather (2003) posited that two metaphors dominated formal education system in the United States, i.e., “education as production” and “education as cure”. In the field of foreign language teaching, Herron (1982) identified two metaphors that shaped curriculum theories in foreign language teaching, i.e., (1) the “mind-body metaphor” where language learning is viewed as mental gymnastics aimed to strengthen and discipline the learner’s mind, and (2) “the production” metaphor where the aim of language education – and education in general -- was to produce a marketable and skillful workforce.

Among earlier studies that collected samples of metaphors about language teachers and offered classifications of these images are Block’s (1992, cited in De Guerrero & Villamil, 2001) study where the researcher distinguished two macro-metaphors for language teachers and learners: (1) “teacher as contracted professional/learner as respected client”, and (2) “teacher as supportive parent/learner as respected child”. In Schwartz and Williams’ (1995:104) research “the mentor teacher” and “the hero student” metaphors appeared “universally” to reflect the importance of teacher for the holistic development of an individual.

De Guerrero and Villamil (2001) collected 28 metaphors from English language teachers and separated them into the following nine categories: (1) cooperative leader (“a coach”, “a symphony conductor”, etc.), (2) provider of knowledge (“a television set”, “the Sun”, etc.), (3) challenger or agent of change (“a window to the world”, “a lion tamer”, etc.), (4) nurturer (“a bee”, “a gardener”, etc.), (5) innovator (“an explorer”, “a convertible car”), (6) provider of tools (“a tool carrier”), (7) artist (“a potter”), (8) repairer (“a mechanic of the mind”), and (9) gym instructor (“a person starting an aerobics class”).

Classifications of metaphors about teachers have been done in non-western educational contexts as well. For example, Saban, Koçbeker and Saban (2006) examined metaphors produced by 1222 education students in a Turkish university. The study yielded 111 metaphors about the concept of “teacher”. The ten dominant metaphors that the researchers identified were (1) the Sun,

(2) sculptor, (3) parent, (4) compass, (5) lighthouse, (6) gardener, (7) candle, (8) tree/fruit tree, (9) painter, and (10) tour guide. As the previous studies attest, among a wide range of metaphors some images (“teacher as parent”, “teacher as artist”, etc.) were recurring despite the differences in educational and socio-cultural settings. This phenomenon highlights the universality of the concept of “teacher”. It also indicates that a classification or taxonomy of metaphors about teachers is possible.

### **3.3 Taxonomies of Metaphors about Teaching and Teachers**

Some studies have adopted a wider theoretical perspective and offered a conceptualization or taxonomy of metaphors on teaching and learning (Chen, 2003; Hyman, 1973; Oxford et al., 1998). Hyman (1973, as cited in Oxford et al., 1998) distinguished four types of educational metaphors, i.e., (1) the manufacturing metaphor; (2) the military metaphor; (3) the gardening metaphor; and (4) the sports metaphor. Chen (2003:24) has collected samples of metaphors on education from various sources and separated them into five categories “based on five criteria or orientations”. The metaphors in these five categories describe teaching as (1) art, (2) business, (3) science, (4) power, and (5) personal dynamics.

The art-oriented metaphors in Chen’s taxonomy highlight the creative side of teaching (eg., “teaching is sculpting”, “teaching is painting”) while in the business-oriented metaphors (eg., “teaching is selling”, “teaching is delivering”, “teaching is marketing”) knowledge is perceived as commodity which has to be efficiently delivered (Chen, 2003:26). The science-oriented metaphors describe teaching as following a certain set of rules and principles that can be reproduced and “verified empirically” (Chen, 2003:27). In these metaphors (eg., “teaching is opening a combination lock”, “teaching is replication of effective practice”), classroom practice is viewed as a mechanical and predictable process where spontaneity of teaching is either eliminated or reduced.

The power-oriented metaphors in Chen’s (2003) study highlight the issue of control in the classroom. For the most part, these metaphors represent the teacher as the controlling force and the classroom environment as teacher-centered (eg., “a teacher is a captain”). However, some power-oriented metaphors attribute control to the students (eg., “a teacher is an observer”) or

reflect interaction and collaboration between the parties (eg., “teacher as entertainer”) (Chen, 2003:28). Finally, personal dynamics metaphors (eg., “teaching is a journey”, “teaching is riding a roller-coaster”, “teaching is juggling”) recognize teachers as individual human beings that have many other social roles to fulfill and view teaching as “an activity that occurs amidst many other activities” (Chen 2003:29).

One of the most theoretically sound taxonomies of metaphors in the field of education has been developed by Oxford et al. (1998). The authors collected metaphors from teachers and students using various written and oral sources and demonstrated how these metaphors aligned with four main perspectives about education which they identified as Social Order, Cultural Transmission, Learner-Centered Growth, and Social Reform. Oxford et al. (1998) postulated that each of the four educational philosophies was associated with the visions and goals prevalent within society. Thus, in the Social Order perspective schooling is viewed as production line where the individual is reduced “to some malleable medium which can be shaped into socially useful product” (Oxford et al., 1998:8). In this layout, the teacher is involved in the process of social engineering and becomes a “manufacturer”, “doctor”, or “mind-and-behaviour controller”.

In the Cultural Transmission concept of education the stress is placed on initiating the learner into “the ‘correct’ cannon of a certain culture” (Oxford et al., 1998:9). The teacher becomes a “gatekeeper” who controls the learner’s entry into “the inner sanctum” of the elite (Oxford et al., 1998:24). In the Learner-Centered Growth educational paradigm, the focus is on the development of the learner’s full potential. The teacher’s responsibility is to create “the optimal environment in which the inner nature of the mind could grow and flourish” (Oxford et al., 1998:9). The metaphors for the teacher are “nurturer”, “scaffolder”, “delegator”, etc. Finally, the Social Reform educational paradigm adopts elements from each of the other three views on schooling and aims to fuse and harmonize the needs of society with the needs of the individual learner. For this, the whole process of education is “reconceptualized around the interactive character of life” (Oxford et al., 1998:9), and the teacher and students must become “miniature democratic communities” where the role of the teacher is to promote the development of a

democratic, scientifically and culturally advanced society. The metaphors for the teacher are “acceptor” and “learning partner” (Oxford et al., 1998:41).

There are some parallels in Chen’s (2003) and Oxford et al.’s (1998) taxonomies. For example, Chen’s “education as business” metaphor echoes Oxford et al.’s Social Order perspective, where the stress is placed on the efficiency of knowledge delivery. Also, both taxonomies reflect a fact that the issue of power and control, whether over the classroom proceedings or over broader education-related issues, remains central.

The studies reviewed in this section have been conducted in Western educational contexts. They employed teacher-generated metaphors and used qualitative approach to data analysis. The present study has been conducted in Malaysia. It examines the images that the language learners have about their teachers, and adopts the quantitative approach (factor analysis) to metaphor analysis in order to explore along which dimensions the students’ perceptions of language teachers are formed.

## **4. Research Method**

### **4.1 Participants**

Ninety eight students learning the Russian language at Universiti Malaysia Sabah (UMS) participated in the current study. Among them, 66 students (67.3 percent) were in their first year and had completed two semesters of the language program, while 32 students (32.7 percent) were second year students who had been learning Russian for four semesters. The age of the participants was between 19 to 27 years old, with the majority (n=81, or 82.7 percent) in the 20-22 age bracket. There were considerably more female (n=54, or 55.1 percent) than male (n=43, or 43.9 percent) students among the respondents. A greater share of the participants (n=67, or 68.4 percent) majored in science and engineering disciplines.

The ethnic background of the participants reflects a multi-ethnic and multi-cultural landscape in Malaysia. The majority of the respondents were Chinese (n=52, or 53.1 percent), which was followed by Malay (n=16, or 16.3 percent), Dusun (n=11, or 11.2 percent), Indian (n=8, or 8.2 percent), and other ethnic groups (n=11, or 11.2 percent), such as Bajau, Lumbawang, Sino-Dusun, and Sino-Kadazan.

## **4.2 Instrument and the Instrument Development**

The present research on students' conceptions of language teachers was conducted in two stages. In Stage One, the purpose was to collect the students' images about language teachers. At that stage, a group consisting of 23 Russian language learners at UMS was given photocopied forms with uncompleted sentence "A language teacher is like...". The students were asked to finish the sentence with their own metaphor and to provide an explanation or entailment for the given metaphor (see Nikitina & Furuoka, 2008). The respondents supplied their metaphors on an anonymous basis as the confidentiality of responses could be conducive for being sincere and giving one's honest opinion; total 27 metaphors were provided by the participants.

The conceptual framework adopted at Stage One of the research was based on Oxford et al.'s (1998) taxonomy of metaphors about language teachers. The 27 metaphors and their entailments created by the participants were analyzed using content analysis to elucidate the thought patterns embedded in the images as recommended by Cameron and Low (1999). Then, the metaphors were codified according to the typology of metaphors developed by Oxford et al., i.e., Social Order, Cultural Transmission, Learner-Centered Growth, and Social Reform. As the results of the content analysis revealed, the metaphors generated by the participants corresponded to three out of the four educational paradigms. Thus, the Social Order, the Cultural Transmission, and the Learner-Centered Growth perspectives on education were all reflected in the students' metaphors while metaphors that fit the Social Reform perspective were lacking (Nikitina & Furuoka, 2008).

Stage Two, i.e. the present research, conducts a quantitative analysis of the student-generated metaphors with the aim to determine the dimensions of the students' perceptions of the language teachers and to explore whether there are other important dimensions in students' images that could not have been identified through the qualitative analysis. All twenty three students who participated in Stage One of the research were among the ninety eight respondents in the current study. The results garnered in Stage One, i.e., the metaphors and their entailments, as well as the groupings of the metaphors were used for developing the present study's instrument.

The resulting questionnaire contains 25 metaphors. However, not all of the metaphors from the previous study are included in the instrument because the process of selection of the images was based on several considerations. Firstly, the instrument must include metaphors (and their entailments) for each of the educational concepts described by Oxford et al. (1998). Secondly, the selected metaphors must reflect the essence of each of the four educational paradigms. Thirdly, the metaphors in the Social Reform perspective were lacking and had to be created and incorporated into the questionnaire. As a result of these considerations, the instrument employed in this study contains 25 metaphors about language teachers. The participants were asked to rank these metaphors on a Likert-type scale that included 5 scales ranging from “strongly disagree” to “strongly agree” reaction. The following metaphors and their entailments were listed in the instrument:

1. the Social Order perspective – 6 metaphors  
*gambler* (“sometimes the teacher won sometimes the students won”)  
*big lorry* (dangerous to provoke)  
*furniture maker* (“produces” students like furniture is produced at a factory)  
*court judge* (gave strict “sentences” to the students)  
*boss* (was ordering the students around)  
*policeman* (retained control and order in the classroom)
2. the Cultural Transmission perspective – 8 metaphors  
*dictionary* (the teacher had all the correct answers)  
*travel guide* (the teacher was leading students around the new territory)  
*clock* (the teacher worked as a precise mechanism though was not very creative)  
*the Sun* (the teacher was the central planet in the “classroom” system)  
*doctor* (the teacher “prescribed” the students what to do)  
*legal advisor* (the students must faithfully follow the teacher’s instruction)  
*power plant* (the teacher generated “electricity” which the students then received)  
*the brain* (the teacher gave commands to the other “parts” of the classroom body)

3. the Learner-Centered Growth perspective – 6 metaphors  
*mother/nanny* (the teacher taught the students step by step, cared about them)  
*candle* (the teacher “enlightened” the students)  
*entertainer* (the teacher prepared interesting program for the classroom)  
*gardener* (the teacher planted the seeds of knowledge and watched them grow)  
*sunshine* (the teacher gave warmth and facilitated the students’ growth)  
*older brother/sister/cousin* (the teacher was always there for you)
4. the Social Reform perspective – 5 metaphors  
*learning partner* (knowledge was discovered and shared together)  
*student* (the teacher too was learning from the students)  
*football team member* (the teacher and the students shared common goals)  
*brother-in-arms* (“kawan seperjuangan” in the Malaysian language)  
*plant or tree* (the teacher was undergoing constant development and growth, just like were the students)

The students were also requested to supply information about their age, gender, ethnicity, and university major. Photocopied forms of the questionnaire were distributed to the students in the end of the academic year 2006/2007, and were collected immediately upon completion.

### **4.3 Data Analysis and Empirical Findings**

#### **4.3.1 Factor Analysis as a Research Technique**

This study employs a quantitative approach to metaphor analysis and uses exploratory factor analysis to establish along which dimensions the students’ perceptions of the language teachers are formed. As a research technique, factor analysis can help determine which items of the research instrument (i.e., statements in the questionnaire, linguistic features under the study, etc.) cluster together to form a ‘factor’. While researchers use their own intuition or reasoning to classify their research items or variables into several groups, a factor analysis will confirm or reject these classifications through statistical methods. In short, a factor analysis helps establish the appropriateness of the items for each dimension of the conceptual framework.

Once the variables have formed factors, each variable will be accompanied by a figure or ‘factor loading’, which shows a degree of the variable’s correlation within its factor. In other words, the ‘factor loading’ shows how well the item

fits within the factor. Items that have a higher loading (i.e., closer to 1) are more representative of the factor.<sup>1</sup>

#### 4.3.2 Factor Analysis of the Data

The students' answers to the 25-item questionnaires were computed using the EXCEL spreadsheet and subjected to statistical analysis procedures. As the first step, in order to establish an appropriateness of the factor analysis application, Kaiser-Meyer-Olkin sampling adequacy test and Barlett's test of sphericity were done. Table 1 reports the results of these tests.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.765
Bartlett's Test of Sphericity	Approx. Chi-Square	694.165
	Df	190
	Sig.	.000

**Table 1:** KMO and Barlett's Tests

The KMO sampling adequacy test statistic is 0.765, which is higher than the threshold value of 0.5 (Hair, Anderson, Tatham, & Black, 1998). The Barlett's test of sphericity statistic is 694.2. This indicates that the null hypothesis that the correlation matrix is an identity-matrix is rejected at the 0.01 level of significance. Thus, these results support the appropriateness of the factor analysis use for the purposes of this study.

Table 2 reports communalities for selected items. Communality indicates how much of the variance in the selected items has been accounted for by the extracted components. For example, 80.1 percent of variance in the "boss" item is accounted for by the extracted factor(s) while the percent of variance accounted for by the extracted factor(s) in the "doctor" item is 78.4.

---

<sup>1</sup> For a more detailed discussion on the use of factor analysis in linguistic research, please refer to Biber, D./Conrad, S./Reppen, R. (1998): *Corpus Linguistics: Investigating Language Structure and Use (Cambridge Approaches to Linguistics)*, Cambridge: Cambridge University Press.

Items	Communalities
1. boss	0.801
2. doctor	0.784
3. clock	0.773
4. brother-in-arms	0.740
5. judge	0.719

**Table 2:** Community

Table 3 reports initial eigenvalues of the components. According to the latent root criterion (Cattell, 1966), a component with eigenvalue greater than one should be considered for further analysis. The factor analysis in this study identified six (6) components which had eigenvalue greater than the benchmark value. These six components explain 66.0 percent of total variance among the 25 items in the instrument.

Component	Initial Eigenvalues		
	Total	% of variance	Cumulative %
1	4.86	24.3	24.3
2	3.10	15.5	39.8
3	1.58	7.9	47.8
4	1.41	7.0	54.8
5	1.15	5.7	60.6
6	1.07	5.3	66.0

**Table 3:** Total Variance Explained

Next, Table 4 reports the result of the rotated component matrix. The main purpose of the rotation is to reduce the number of the components on which the items have a higher factor loading. This is expected to reduce the number of variables and produce a clear structure for the interpretation of results.

Metaphors	Components					
	1	2	3	4	5	6
Brother-in-arms	.769					
Learning partner	.719					
Football team member	.663					
The brain	.566					
Plant/tree	.543					
Boss		.879				
Policeman		.746				
Court judge		.726				
Entertainer			.660			
Gambler			.660			
Travel Guide			.656			
Dictionary				.763		
Mother/nanny				.670		
Candle				.663		
Older brother/sister				.449		
Doctor					.802	
Legal advisor					.627	
Sun					.553	
Clock						.837
Furniture maker						.625
Cronbach alpha	0.755	0.798	0.647	0.712	0.599	0.518

**Table 4:** Rotated Component Matrix(a)

Two items -- *power plant*, and *student* -- had to be removed from the analysis due to a low communality (below 0.5). Other three items -- *big lorry*, *gardener*, and *sunshine* -- were eliminated from the analysis because they loaded on

more than one component, which created complex structures. These complex structures can lead to difficulties in interpretation of results. As Coakes (2005:161) observed, “Complex variables may have higher loading on more than one factor and they make interpretation of the output difficult”. After eliminating complex structures, each remaining for the analysis variable had a higher factor loading on one component only.

The factor analysis separated the images into six dimensions or components (see Table 4). Each of the components was further checked for reliability (Cronbach alpha). The internal consistency reliability for the factors is: Factor 1 -- 0.755, Factor 2 -- 0.798, Factor 3 -- 0.647, Factor 4 -- 0.712, Factor 5 -- 0.599, and Factor 6 -- 0.518. This shows that there is no bias among the items within each component, and the internal consistency is thus has been established.

Component 1 (see Table 4) includes the items *brother-in-arms*, *learning partner*, *football team member*, *the brain*, and *plant/tree*. Only one item – *the brain* – crossed the border as it had been originally placed among the metaphors in the Cultural Transmission perspective on education. The rest of the items in this component are from the Social Reform educational paradigm.

Component 2 comprises the items *boss*, *policeman*, and *court judge*. All these items were originally placed by the researchers into the Social Order perspective.

Component 3 contains the items *entertainer*, *gambler*, and *travel guide*. Each of the three items comes from a different group. Thus, the *entertainer* is from the Learner-Centred Growth perspective while the *gambler* is from the Social Order perspective, and the *travel guide* is from the Cultural Transmission perspective.

Component 4 is formed by the items *dictionary*, *mother/nanny*, *candle*, and *older brother/sister*. The latter three items are from the Learner-Centred Growth perspective, while one item – *dictionary* – is from the Cultural Transmission perspective.

Component 5 has three items – *doctor*, *legal adviser*, and *the Sun*. All of these items are from the Cultural Transmission perspective.

Component 6 is formed by the items *clock* and *furniture maker*. The former is from the Cultural Transmission perspective while the latter is from the Social Order perspective.

## 5. Discussion

The first aim of this study was to explore the dimensions of the students' perceptions of language teachers. The factor analysis detected six clearly delineated dimensions or components.

Considering the metaphors and their entailments in Component 1, it can be said that they describe the language teacher as a "team member". One metaphor in this component -- *the brain* -- crossed the border as it was originally a part of another group of metaphors. However, looking at the entailment of this metaphor ("the teacher gave commands to the other 'parts' of the classroom body") it transpires that the respondents may have placed the importance on the coordinating rather than the commanding function of the "brain". In this case, the metaphor may have been perceived in a different light from that originally intended. This means that the image does not clash with the other metaphors in this dimension which put emphasis on the joint coordinated efforts by all the participants in the learning process towards achieving the ultimate goal.

The metaphors forming Component 2 view teacher as the "boss". All the metaphors were originally placed in the same group and retained this clustering in the course of the factor analysis. It must be said that this component is one of the most cohesive in the present study; it also has the highest internal consistency.

Considering the metaphors in Component 3, it can be deduced that the teacher is viewed as an "interactor". All the metaphors come from different educational perspectives. However, they stress the connectedness and highlight the various ways in which interaction between the teacher and students is possible with the teacher being intermittently an *entertainer*, *gambler*, and *travel guide*.

The metaphors in Component 4 present teacher as a "provider". Though one metaphor -- *dictionary* -- was originally placed in another group, its entailment "the teacher had all the correct answers" may imply that the teacher was perceived by the respondents as the giver of "correct" facts and knowledge, and therefore the image does not clash with the other metaphors in this component.

Component 5 contains the metaphors highlighting the teacher's function as an "advisor". All the metaphors in this component are from the same original group.

Finally, Component 6 consists of two metaphors which came from different groups. These metaphors describe the teacher as a "precise mechanism".

To summarize the findings, the following dimensions in the image of the teacher have been identified: (1) team member, (2) boss, (3) interactor, (4) provider, (5) advisor, and (6) precise mechanism.

Regarding the second aim of this study, which was to assess whether the components detected by the factor analysis would validate the previous attempts at taxonomy of the education-related metaphors (Chen, 2003; Oxford et al., 1998), the findings lend some support to the previous attempts at metaphor classification.

Especially noticeable in the findings of the present study is that among the most cohesive dimensions were the ones that contained the metaphors pertaining to power-sharing, or the lack of such, in teacher-student relationship (eg., Component 2 "teacher as boss", and Component 1 "teacher as team member"). This result supports Chen's (2003) decision to distinguish power-oriented metaphors. Also, this finding agrees with Oxford et al.'s (1998:6) proposition that "The classroom environment implies a set of *power* relationships, which are almost always asymmetrical". As the results show, in the students' perceptions, power in the classroom can be concentrated solely in the hands of the teacher ("teacher as boss") or shared with or increasingly delegated to the learners ("teacher as team member").

Other consistent dimensions identified in the current study were "teacher as advisor" and "teacher as provider" which highlighted the unidirectional nature of the classroom interaction between the parties. This view is consistent with Oxford et al.'s (1998) description of the teacher as "conduit". Further, the perception of the teacher as "precise mechanism" is related to the issue of efficiency in the delivery of knowledge identified in Chen's (2003) taxonomy.

To conclude, the findings of the current study show that the students' conceptualizations of the language teachers evolved around the issue of power-sharing in the classroom and the modes of interaction between the teacher and the students. The dimensions along which the metaphors aligned

highlight the areas in the learners' perceptions of their relationship with the teacher and the organization of the classroom proceedings that may need a further investigation.

## 6. References

- Beck, L.G./Murphy, J. (1993): *Understanding the principalship: Metaphorical themes, 1920s-1990s*. New York: Teachers College Press.
- Ben-Peretz, M./Mendelson, N./Kron, F.W. (2003): "How teachers in different educational contexts view their roles", in: *Teaching and Teacher Education* 19, 277-290.
- Block, D. (1992): "Metaphors we teach and live by", in: *Prospect* 7(3), 42-55.
- Bozlk, M. (2002): "The college student as learner: Insight gained through metaphor analysis", in: *College Student Journal* 36(1). Retrieved November 16, 2007, from Academic Search Premier database.
- Bullough, R.V. Jr. (1991): "Exploring personal teaching metaphors in preservice teacher education", in: *Journal of Teacher Education* 42(1), 43-51.
- Cameron, L./Low, G. (1999): "Metaphor", in: *Language Teaching*, 33, 77-96.
- Cattell, R.D. (1966): "The Scree test for the number of factors", in: *Multivariate Behavioural Research* 1, 245-276.
- Chen, D. (2003): "A classification system for metaphors about teaching", in: *Journal of Physical Education, Recreation & Dance* 74(2), 24-31.
- Cook-Sather, A. (2003): "Movements of mind: The Matrix, metaphors, and re-imagining education", in: *Teachers College Records* 105(6), 946-977.
- Cortazzi, M./Jin, L. (1999): "Bridges to learning: Metaphors of teaching, learning and language", in: L. Cameron & G. Low (eds.), *Researching and applying metaphor* (149-176). Cambridge, UK: Cambridge University Press.
- De Guerrero, M.C./Villamil, O.S. (2001): "Metaphor analysis in second/foreign language instruction: A sociocultural perspective". Revised version of paper presented at the annual meeting of the American Association of Applied Linguistics, St.Louis, MO, February 24-27, 2001. Retrieved November 16, 2007, from ERIC database (ED461990).
- Dooley, C. (1998): "Teaching as a two-way street: Discontinuities among metaphors, images, and classroom realities", in: *Journal of Teacher Education* 49, 97-107.
- Gibbs, R.W. (1994): *The poetics of mind: Figurative thought, language, and understanding*. Cambridge: Cambridge University Press.

- Grady, N.B./Fisher, D.L./Fraser, B.J. (1995): "Relationships between teachers' images of school and students' perceptions of classroom environment". Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA, April 18-22, 1995. ERIC database (ED 385526).
- Greene, M. (1973): *Teacher as stranger: Educational philosophy for the modern age*. Belmont, CA: Wadsworth.
- Hair, J.F., Jr./Anderson, R.E./Tatham, R.L./Black, W.C. (1998): *Multivariate data analysis* (5<sup>th</sup> Edition), New Jersey: Prentice Hall, Inc.
- Herron, C. (1982): "Foreign-language learning approaches as metaphor", in: *The Modern Language Journal* 66(3), 235-242.
- Holme, R. (2003): *Mind, metaphor and language teaching*, New York: Macmillan.
- Hyman, R.T. (1973): "Leadership and metaphors in teaching", in: *Notre Dame Journal of Education* 4, 80-88.
- Jensen, D.F.N. (2006): "Metaphors as a bridge to understanding educational and social Contexts", in: *International Journal of Qualitative Methods* 5(1), Article 4. Retrieved on 23 April 2008, from [http://www.ualberta.ca/~iiqm/backissues/5\\_1/pdf/jensen.pdf](http://www.ualberta.ca/~iiqm/backissues/5_1/pdf/jensen.pdf)
- Kliebard, H.M. (1982): "Curriculum theory as metaphor", in: *Theory into Practice* 21(1), 11-17.
- Knowles, J. G. (1994): "Metaphors as windows on a personal history: A beginning teacher's experience", in: *Teacher Education Quarterly* 27(1), 37-66.
- Kramsch, C. (2003): "Metaphor and the subjective construction of beliefs", in: P. Kalaja & A.M.F. Barcelos (Eds.), *Beliefs about SLA: New research approaches* (109-128), Springer.
- Lakoff, G./Johnson M. (1980): *Metaphors we live by*. Chicago: The University of Chicago Press.
- Leavy, A.M./McSorley, F.A./Boté, L.A. (2007): "An examination of what metaphor construction reveals about the evolution of preservice teachers' beliefs about teaching and learning", in: *Teaching and Teacher Education* 23, 1217-1233.
- Mahlis, M./Maxson, M. (1998): "Metaphors as structures for elementary and secondary preservice teachers' thinking", in: *International Journal of Educational Research* 29, 227-240.
- Morgan, G. (1983): "Research strategies: Modes of engagements", in: G. Morgan (Ed.), *Beyond method: Strategies for social research* (19-44). Beverly Hills: Sage.

- Nikitina, L./Furuoka, F. (2008): “ ‘A language teacher is like...’. Examining Malaysian students’ perceptions of language teachers through metaphor analysis”, in: *Electronic Journal of Foreign Language Teaching* 5(2), 192-205. Retrieved on 5 December 2008, from <http://e-flt.nus.edu.sg/v5n22008/nikitina.pdf>
- Ortony, A. (1975): “Why metaphors are necessary and not just nice”, in: *Educational Theory* 25, 45-53.
- Ortony, A./Fainsilber, L. (1989): “The role of metaphors in descriptions of emotions”, in: Yorick Wilks (Ed.), *Theoretical issues in natural language processing* (181-184. Hillsdale, NJ: Erlbaum.
- Oxford, R./Tomlinson, S./Barcelos, A./Harrington, C./Lavine, R. Z./Saleh, A./Longhini, A. (1998): “Clashing metaphors about classroom teachers: Toward a systematic typology for the language teaching field”, in: *System* 26(1), 3-50.
- Provenzo, E.F./McCloskey, G.N./Kottkamp, R.B./Cohn, M.M. (1989): “Metaphor and meaning in the language of teachers”, in: *Teachers College Record* 90(4), 551-573.
- Saban, A./Koçbeker B.N./Saban, A. (2006): “An investigation of the concept of teacher among prospective teachers through metaphor analysis”, in: *Educational Sciences: Theory & Practice* 6(2), 509-522.
- Schwartz, R.A./Williams, K. (1995): “Metaphors we teach by: The mentor teacher and the hero student”, in: *Journal of Aesthetic Education* 29(2), 103-110.
- White, B./Smith, M.W. (1994): “Metaphors in English education: Putting things in perspective”, in: *English Education* 26(3), 157-176.