ISELT-3 2015

Proceedings of the Third International Seminar on English Language and Teaching (ISELT-3)

## THE ANALYSIS ON PASSIVE VOICE ERRORS ON STUDENTS' THESES AGREED FOR FOLLOWING THE FINAL COMPREHENSIVE EXAM

Zulfariati and Amelia

English Department of FKIP UMMY Solok zulfariati\_jun@vahoo.com mobile phone number: 081374806290

### Abstract

This article is part of the writers' research on the grammatical error analysis. It is the research on the students' theses as the final academic projects for getting the strata one degree at English Department of FKIP UMMY Solok, Ideally the students who have been allowed for joining the final comprehensive exam should be able to write their theses by using correct grammar. However, it was found that some of them still made errors in writing their theses. The aim of this research was to identify the types and percentage of grammatical errors in using passive voice that had been made by the students in their writing products in terms of theses agreed by their advisors for joining the final comprehensive exam. This research was carried out by using descriptive research design. The population of this research was the documents in form of the 81 students' theses which have been agreed for following the final comprehensive exam at three periods of final comprehensive exams from 2012/2013 until 2013/2013 at the English Department of FKIP UMMY Solok.Random sampling technique was used to collect 10 theses (about 10% of the population) as the sample. In collecting the data, the reseachers read and analyzed all of the 10 students' theses. It was found that the students made errors in using passive voice in each type of surface strategy taxonomy. The highest level of the students' grammatical error on passive voice usage is on "Omission" type. The omission in preposition, tobe, conjunction, and verbare about 74.7 % (it is at the highest level). It indicated that the students who had been allowed to follow the final comprehensive exam for their theses still have problem in using passive voice in writing their theses. The lecturers of grammar are suggested to paymore attention to and consider the appropriate teaching technique in teaching English grammar, especially in teaching passive voice. It is also suggested to students' advisors to have more corrections on the students' errors during the correcting process of their students'errors, especially in using passive voice in writing their theses.

Key words/phrases: grammatical error analysis, passive voice, students' theses

### Introduction

Grammar is one of components of language which is used to give the meaning to the structure of a language. It is an essential part of the use of language process, both in spoken and written language. It is the description of the ways in which the language uses patterns of structure to convey the meaning. It also serves to enhance and sharpen the expression of meaning. So, by using good grammar system of a language, it will be helpful in delivering ideas, messages, and feelings either to the listeners or readers. It means that if there are grammatical errors in using lnguage, in academic writing for example, it will result the disorganized writing and will cause some communicative problems.

Based on the curriculum used at English Department of FKIP Mahaputra Muhammad Yamin University all of students have to be able to write the academic writings in English. One of the academic writings is their theses. It is their final project in form of their research reports for finishing their studies to get the strata one degree. In writing these theses they should master English grammar rules. They have to consider and use appropriate grammar in order to be easy for the readers to get their ideas. However, it is found that there are many grammatical errors that had ben made by the students in their theses although those theses had been agreed by their advisors for joining the final comprehensive exam—the last exam for getting the sarjana degree. Those errors were in punctuation, sentence structure, paragraph development, diction, vocabulary usage, constructing active and passive voices, and the use of parts of speech. In this research the analysis focused on the use of passive voice in students' scientific writings—theses.

In fact, there are many good ideas on teaching and learning components that have been written by the English Department students of FKIP UMMY Solok in their theses. Those ideas can give positive contributions for the readers who want the improvement and development of English teaching and learning process in the classroom. However, many sentences in these theses were written ungrammatically, especially in using passive voice. The students make errors in identifying kinds of tense in passive form. In each kind of tenses, they still have difficulties to determine the use of "to be" (is, am. are, was, were, be, been, being) as a main verb or anxiliaryverb corresponded with the subjects as its attendance in a sentence. They should be

### ISBN: 978-602-17017-7-5

more careful with the transformation of "ic be" when they have to change an active sentence into a passive one.

Some of studentsstill didnot understand more about the form of passive voice. As the result, they had not been able to construct their ideas in passive sentence appropriately. The students still used verb one or verb two instead of *-ed* participle in making sentences in using passive voice. Some of them were difficult to determine or identify object in active sentence. So, they were still confused to change active sentence to become passive sentence. Because of the conditions above the researchers wanted to describe the analysis results of the students' errors on grammar in using passive voice in their theses agreed for following the final comprehensive exam at the three periods of final comprehensive exam from 2012/2013- 2013/2014 at the English Department of FKIP UMMY Solok. The reason of choosing the three periods was to know whether the errors were decreased from one priod to others.

### Literary Review

Numerous studies on passive have been conducted from various spectrums to obtain thorough understanding on both passive and active voice constructions. One of them is the research conducted by Yanuar, et al (2014) who conducted the research on the comparison usage of active and passive voice. Passive voice construction is mainly used in method section to get rid of personal whims and fancies, and thus obtain impersonality and universality of the research (Ahmad, 2012). Ahmad found that 70% of passive was implemented in method of Medical and Natural Science articles. Baratta (2009) investigated the stance derived from the passive voice as it was an advantageous tool to indicate the writer's feeling, which underlined the speaker as the subject focus, not as the rear-object. Passive voice to indicate author's stance is supported by the semantic class of words, that each word conveys different meaning and purpose. Biber (2004) gave new sight on how stance verbs vary from different kinds of genre, including academic writing. There are several forms of passive, mostly are constructed in form of the auxiliary be and an -ed participle. However, passive can also be formed with auxiliary get, which is called the get-passive. Passive construction occurs either as short passive or long passive. Long passive contain a by-phrase which specifies the agent of the action, however there are also exception to the use of by to govern the agentive phrase, i.e the room way permeated with gas and he is known to me (Coetzee, 1980). In principle, the long passive can be replaced by an active clause with the same meaning, yet it will be less appropriate than the passive voice (Biber et al., 2003).

Biber et al.'s (2003) principals for choosing long passives in writing include: (1) the informationflow, in which preference for presenting new information at the end of a clause; (2) end-weight, in this case the agent does not hold up the processing of the rest of the clause; and (3) the long passive place initial emphasis on an element of the clause, which is the topic or theme. In other words, long passive construction allows the object agent to have less attention from the readers and somehow lack of responsibility. Meanwhile, short passive is when the agent is not specified. According to Biber, et al. (2003), the short passive is a useful device in academic writing because it gives the status of topic to the direct object of the corresponding active clause. The sense of objective detachment also appears by employing the non-agentive passive.

There are more ideas about the concept of passive voice and its advantages in writing. According to Duke Graduate School Scientific Writing Resource (2013: 6) there are many advantages of using passive voice, especially in writing scientific writing. The advantages can be as: 1) Passive stressed what was done. It makes sense to use passive to stress what was done if that is the purpose of writing. 2) Passive is more abjective and scientific. Some people claim that passive voice is inherently more scientific than active voice. The use of passive voice encourages precision and probity. The use of passive voice let tha facts stand on their own, removes some accusations of bias, and presents an "air" of feeling of logic.Passive voice provides structure control. The passive is not only acceptable but a necessary tool if a writeris to have complete control over the structuring of sentences. In this case the key to use passive voice is to switch the order of the subject and object. It is important to have the correct backwards-linking information at the beginning of the sentence. Passive voice has its place in scientific writing and has many functions in writing even orally. Using passive voice more scientific, objective, and provides structure control because of that, most of researchers tended to use passive voice in their written. It should be used when necessary to maintain the cohesion.

### Methodology, Result, and Discussion

The kind of this research is a descriptive research. It is the error analysis process. Error analysis, according to Sokeng (2014) is a branch of applied linguistics, emerged to demonstrate that learner errors were not only because of the learner's native language, but also reflected some universal learning strategies. This was as a reaction to the contrastive analysis theory, which considered interference as the basic process of second

ISELT-3 2015

language learning, Richards and Schmidt (2010: 201) define Error Analysis (EA) as the study and analysis of the errors made by second language learners. EA may be carried out in order to identify strategies which learners use in language learning, to try to identify the causes of learner errors and obtain information on common difficulties in language learning, to act as an aid to teaching or in the preparation of teaching materials.

This research was aimed at identifying the types and percentage of students' grammatical errors in using passive voice in their academic writing in terms of theses agreed by their advisors for joining the final comprehensive exam. The population of this research was the document in form of the whole students' theses which had been agreed by the advisors for following the final comprehensive exam at the three periods of final comprehensive exam (from 2012/2013 – 2013/2014 at the English Department of FKIP UMMY Solok. The has been taken 10% from the whole of the population. There were 10 students' theses as the sample of this research. All of these theses have been analyzed to determine types of passive voice errors that had been made by the students.

The instrument of the research was the students' theses. These theses were the key instruments of the research in order to know the grammatical errors on Sucface Strategy Taxonomy that had been made by the students in using passive voice in their theses. Observation sheets in form of tables with the indicators for grammatical errors was other instrument used for collecting the data on how the errors made by the students in using passive voice. All of the errors were collected and classified based on the Surface Strategy Taxonomy suggested by Dulay (1982: 150). By reading the whole sentences made by the students in their theses the whole identified grammatical errors on passive voice have been tabulated into the table of observation sheets.

To analyze the data, first, the researchers as the analysts ha to write down and incorporate the whole grammatical errors in using passive voice. Second, the whole identifed grammatical errors have been classified based on their types and then they were put in tables of observation sheets. Finally, to calculate the percentage of each type of the students' errors the researchers had to used the formula that is suggested by Arikanto (2009) where the frequency of each type of error (in percentage) was calculated by dividing the frequency or number of errors in each category/type with the total number of identified errors then multiplied with one hundred percent. The percentage then was classified into the following interval table as suggested by Arikunto (2009):

#### Table I: The Classification Level of Students' Error

Interval of Students' Error	Classification of Students' Error
81% - 100%	Very high
61% - 80%	High
4196 - 60%	Average
21% - 40%	Low
0% - 20%	Very low

Findings of the Research

Based on the analysis of passive voice on the 10 (ten) of students theses agreed for following the final comprehensive at three periods of final comprehensive exam (from 2012/2013 – 2013/2014) at the English Department of FKIP UMMY Solok.it was found that there were many types of students' grammarical errors in using passive voice based on Surface Strategy Taxonomy Dulay (1982: 150). They were: Omissions. Additions, Misformationsand Misordering types, can be seen on the following tables:

Table 2: Students'	'Grammatical	Errors in Using )	Passive Voice Based	I on Surface Strategy	Taxonomy
--------------------	--------------	-------------------	---------------------	-----------------------	----------

Students' T	heses		1	2	3	4	5	6	7	8	9	10	Total Number of Errors	%	
			Prep	11		5	-	-	-	1	1	-	-	13	2,7%
250.000	OM	TB	18	15	17	39	37	33	18	26	16	17	236	49.2	
Surface Strategy	0M	CI	8	8	9	28	10	5	7	53	2	7	89	18.6 %	
Tasonomy		VR	3	1	1	1.	4		a.;		-	-	10	2%	
	1.00	DM	-	-2		4	1	2	+	2	4	1	12	2.5%	
	AD	RG			8					÷.		- N	-		

### ISBN: 978-602-17017-7-5

OM = Or	nmissie	on A	D	= Ad	ldítio	0		MF	= Mi	s-For	mati	m	MO	÷. 1
Total Numb	er of E	rrors	-61	47	30	82	-71	46	36	- 50	27	30	480	100%
	nuo.	Auxī	+	۰.	- 10	1	.+	+	*	-	+	+.	1	0,2%
	MO	SJ	4			1	÷	¥.	1	1	1	÷.	8	1.2%
		AL.	8	6	3	6	7	6	7	15	6	4	68	14.2 %
	MF	AF	.9	1	*	2	12	-	2	-	2	1	29	6%
		RE					1.	+	-	-	+	*	+	÷.
		SA	1.0	10	·	-		+		-	+	+	*	

ISELT-S

2015

CJ = Conjunction SA = Simple Addition AL = Alternative Forms

VR = Verb

From the table 2 above, it can be seen that the students had grammatical errors in using passive roice based on Surface Strategy Taxonomy categories. In the Omission Category their total number of errors on omission of preposition was 16 (3.4 %),in omission of to be was 230 (49.1 %),in omission of conjunction was 94 (20%),and in omission of verb was 10 (2.1 %). In Addition Category the students' total number of errors ondouble markingwas 12 (2.6 %),in addition of regularization and simple addition there is no student who made errors. In Misformation Categorythere is no student who made errors in regularization, in archie formstheir total number of errors was 29 (6.1 %),and in alternative forms was 68 (14.5 %). In Misordering Category the students' total number of errors on subject was 8 (1.7 %), andthe last, in auxiliary was 1 (0.2 %). It seems that the most frequent errors in using passive voice the students had made are errors on omission of "to be".

In this research the researcher analyzed students' grammatical errors in using passive voice based on surface strategy taxonomy categories. There are four types of errors basedon this category: Omission, Addition, Misformation and Misordering. The followings are the Findings on Omission Type:

	Surface	e Strategy	10		
Students' Theses	OMISS	SION	Total Number		
	Prep	TB	CJ	VR	ofErrors
1	-11	18	8	3	40
2	-	15	8	1	24
3		17	9	1	27
4		39	28	1	68
5	-	37	10	4	51
6		33	5	+	38
7	1	18	7	1.0	26
8	1	26	5	+	32
9	(+) (+)	16	2		18
10	÷	17	7	(m)	- 24
Total NumberofErrors	13	236	89	10	348
56	3,7%	67,8%	25.6%	2,9%	100%

Table 3: Students' Grammatical Errors in Using Passive Voice on Omission Types Based on Surface Strategy Taxonomy

Based on the table 3 above it can be seen that in writing their theses, the students had made some kinds of *omission* errors. In the omission of *preposition*, the total number of error was 16 (4.6%), in the centission of to be was 230 (65.7%). In the omission of *conjunction* was 94 (26.7%) and in the omission of verb was 10 (2.9%). It teems that the students made errors on the omission of *to be* more frequently than other omission category. However, they made errors on the omission of verb less frequently than others.

The findings on Addition Type can be seen in table 4 below. It can be seen that the students had made errors in passive voice on addition type in category of *double marking*. The total number of error was 13 (3.7%). In the regularization and in the simple additioncategory there is no student who made errors.

ISELT-3

2015

Proceedings of the Third International Seminar on English Language and Teaching (ISELT-3)

Table 4: Students' Grammatical Errors in Using Passive Voice on Addition Types Based on Surface Strategy Taxonomy

Students' Theses	Surface			
	ADDI	TON	Total Number	
	DM	RG	SA	ofErrors
1	14	-	-	
2	3	=2	-	2
3			-	-
4	4			4
5	1	-		1
6	2		-	2
7	2÷	1.	2	
8	2	-	×.	2
9	5÷	1	16 A	+
10	1		3	1
Total NumberofErrors	12	-	2	12
56	100%			100%

The followings are the Findings on Misformation Type:

Table 5:Students' Grammatical Errors in Using Passive Voice on Misformation Types Based on Surface Strategy Taxonomy

Students' Theses	1.201000	ace onomy		
	MIS	Total Number		
	RE	AF	AL.	ofErrors
1		9	8	47
2		1	6	7
3	-	-	1	3
4	18	2	fi .	8
5	4	12	7	19
6		+	6 +	6
7	1.2	2	7	9
8	× 1	-	15	15
9	Sk .	2	6	8
10		1	4	5
Total NumberofErrors	-	29	68	97
Ya	-	29.9%	70%	100

From the table 5 above, it can be seen that the students errors on *misformation* type are: 1)in the regularization category there is no student who made error. In the *archie forms* category the total number of error was 29 (29.9%) and in the *alternative forms* category was 68 (70%). It can be seen that students had madeerrors in *alternative forms* category more than in *archie forms* category.

The next are the findings on *Misordering Type*. From the table 6 below, it can be seen that the students had made errors in *misordering* type. In the *subject* categorythe total number of error was 8 (88,9%). Meanwhile in *mixiliary* category was 1 (11.1%). It seems that the students had make errors more frequently in *subject* of *mixordering* types of passive voice.

Table 6: Students' Grammatical Errors in Using Passive Voice on Misordering Types Based on Surface Strategy Taxonomy

Students' Theses	Taxor	A	Total Number		
	Misor	Misordering			
	SJ	Auxi	ofErrors		
1	.4		4		
2	-	÷	-		
3					

ISBN: 978-602-17017-7-5



4	1.1	1	2
5			-
E.	1.0	-	
7	1	-	1
8	1	÷.	3
9	1		1
10	<u>.</u>		-
Total NumberofErrors	8	1	9
%	88.9%	11.1%	100%

Moreover, in general, the types and level of students' grammatical errors can be shown in the following table:

No.	The Types of Errors	Total Frequency of Errors	Percentage of Errors	Level of Students' Errors
1	Omission	348	74,7 %	High
2	Addition	12	2,6 %	Very low
3	Misformation	97	20.8%	Very low
4	Msordering	9	1.9%	Very low
	Total Number of Errors	466	100%	

Table 7: The T	ypes and	Level of the S	tudents"	Grammatical	Errors

Table 7 above shows that in general the levels of the students' errors on grammar in using passive voice are various. The highest level of their errors is on the omission type that is 74.7 % (high). On the other types additions, misformation and missordering types, their level of errors in using passive voice are very low (2.6%, 20.8%, and 1.9%).

#### Discussion

The result of this research found that the students had made errors on grammar in using passive voice. Base on typesof Surface Strategy Taxonomy the first type-omission isat a high level of error with the percentage is 74.7 %. The second---the addition type isata very low level with the percentage is 2.6 %. Third type-misformation isatu very low level too with the percentage 20.8 %. The last type-misordering is alasont a very low level with the percentage 1.9 %. In the case of using passive voice, the most frequent grammatical error made by the students in using passive voice in their theses at the three periods of final comprehensive exam is on omission type. As Richards and Schmidt (2010) say an error results from incomplete knowledge. It is made by a learner when writing or speaking and is caused by lack of attention, fatigue, carelessness, or some other aspect of performance (p. 201). Hubbard et al. (1983) say all incorrect forms produced by students are errors but it is important to make a difference between genuine errors caused by the lack of knowledge about the target language or incorrect hypotheses about it and mistakes caused by temporary lapses of memory confusion, slips of the tongue and so on (p. 134). Sokeng (2014) quotes Erdogan (2005) suggests two ways to distinguish between an error and a mistake: the first one is to check the consistency of learner's performance. If hesometimes uses the correct form and sometimes the wrong one, it is a mistake. However, if he always uses it incorrectly, it is then an error. The second way is to ask learner to my to correct his own deviant utterance. Where he is unable to, the deviations are errors; where he is successful, they are mistakes.

The results of this study have shown that thestudents made a lot of different types of grammatical errors in using passive voice. The sources of these errors can be interfingual and intralingual. Great care thould be taken by anyone grammar lectures or students' theses advisors. In order to check that their writing does not contain any grammatical mistakes, learners also have to carefully proofread their work and check that all the sentences are well-labelled and stated.

Another recommendation is that it is also best to check using grammar books so as to be really sure that the meaning the learner is trying to pass is clear and the grammar he is using is correct. The best way can be to say in simple ways what the learner has to say.

### Conclusions and Suggestions

### Conclusion

Based on the result of the data analysis on in the ten (10) of students' theses agreed by the advisors for following the final comprehensive exam at the three periods of final comprehensive exams (from the first semester of 2012/2013 until first semester of 2013/2014 academic year) at the English Department of FKIP ISELT-3 2015

Proceedings of the Third International Seminar on English Language and Teaching (ISELT-3)

UMMY Solok, it can be concluded that the students had made various types and level of errors in using passive voice in their theses. They had made errors dominantly on the Omission type. It is at a high level, but they have errors on Addition, Misformation, and Misordering typesat verylow level. In general it can be concluded that Average Level. These errors are because of most of the students did not understand how to use accurate grammar on passive voice. They cannot check their errors by themselves while they are writing. All of errors happen because their errors were not checked by their advisors before they were allowed to follow the final comprehensive exam.

### Suggestions

Based on the finding of the research and conclusion above, it is suggessted to the future students of English department to pay close attention to the use of correct grammar, especially in using passive voice in writing their theses as the academic writings. The students should follow their advisors' correction in the errors they had made in their theses. It means that the students' theses advisors should pay attention to the action of analyzing and correcting their students' errors in using passive voice. Because these are errors, so the students cannot checked their errors by themselves. So, advisors' correction is needed to minimalize their students' grammar errors in order to get the high language quality of their theses. It is also suggested to the English lectures who teach grammar at the English Department of FKIP UMMY Solok to teach grammar, especially in teach passive voice, integratedly with the writing activities.

Lectures should be able to not only detect and describe the errors from a linguistic view, but also to understand the psychological reasons for their occurrences. Correction of errors is as important as identification and description of them. Such research work should help lecturers to be aware of the most common and salient grammatical errors students make and they should be able to make use of them in the teaching process appropriately.

#### References

- Ahmad, J. (2012). Stylistic Features of Scientific English: A Study of Scientific Research Articles. English Language and Literature Studies 2,1, 47-55.
- Arikunto, Suharsimi, 2009. Dasar-dasar Evaluasi Pendidikan. Jakarta: PT Bumi Akarasa.
- Arikunto, Suharsimi. 2010. Prosedur Penelitian Suatu Pendekatan Praktik. Jakarta: Rineka Cipta.
- Baratta, A. (2009). Revealing stance through passive voice. Journal of Pragmatics 41, 1406-1421.
- Biber, D., Concord, S., & Leech, G. (2003). Longman student grammar of spoken and written English. Harlow, Essex: Pearson Education Ltd.
- Biber, D. (2004). Historical patterns for the grammatical marking of stance. Journal of Historical Pragmatics 5.1, 107-136.
- Cameron, Lynne. 2001. Teaching Language to Young Learners. Cambridge: Cambridge University Press.
- Coetzee, J. (1980). The rhetoric of the passive in English. Linguistics 18, 199-221.
- Corder, S.Pit. 1973. Introducing Applied Linguistics. Harmondsworth: Penguin Education.
- Disterbeft, Dorothy. 2004. Advanced Grammar a manual for Students. Carolina: University of South Carolina.

Duke Graduate School Writing Process. 2013. "Passive Voice: Scientific Writing Resource". Ckg.duke.edu/web/sciwriting/index.php. Retriefied on April 2013.

Dulay, Heidi et al. 1982. Language Two. New York: Oxford University Press,

- Fromkin, V. Rodman, R. and N. Hyams. 2007. An Introduction to Language. Boston: Thomson Higher Education.
- Gay, L. R. and Peter Airasian. 2000. Educational Research Competencies for Analysis and Application Ohio: Von Hoffmann Press.
- Greenbaum, Sydney, 1996. English Grammar. New York: Oxford University Press.
- Leki, Ilona. 1991. Forum. Ellis Island: University of Tennessee.
- Long, Michael H. and Jack C. Richards (Eds.). 1987. Methodology in TESOL: A Book of Readings. Boston: Heinle & Heinle Publishers.
- Mundhenk, Robert T, and William R. Siebenschuh. 1978. Contact: A Guide Writing Skills. Boston: Houghton Mifflin Company.
- Murrow, Patricia, 2004. "Analysis of Grammatical Errors in Students' Writing: Indicators for Carricula Enhancement", (http://www. Matsue-et.ac.jp/tasho/kyou40/pdf/k-report02.pdf, retrieved on 23 April 2006).
- Myles, Johanne. 2002. "Second Language Writing and Research: The Writing Process and Error Analysis in Students Tests." Teaching English as a Second or Foreign Language, Vol.6:No.2. A-I, file:
- Pearson, 2003. Writing and Grammar, America: The Asian Foundation.

#### ISBN: 978-602-17017-7-5



Richards, J.C. and Schmidt, W. R. 2010. Longman Dictionary of Language Teaching and Applied Linguistics, 4th Edition. Routledge: Pearson Longman.

Sokeng, Stéphane Céleste Piewo. 2014. "Grammatical Errors of Bilingual 1 Francophone Learners of English in the University of Yaounde I". Theory and Practice in Language Studies, Vol. 4, No. 9, pp. 1778-

1785, September 2014, ISSN 1799-2591. © 2014 ACADEMY PUBLISHER Manufactured in Finland, doi:10.4304/tpls.4.9.1778-1785

Sugiyono. 2006. Metode Penelitian Admnistrasi. Bandung: Alfabeta.

Werner, Patrica K. 1985. Mosaic II. New York: California University.

Wenner, Patricia K. and Nelson P. John. 2002. Masaic 2: Grammar, New York:

Mc. Graw Hill, Inc.

- Wyrick, Jean. 1987. Steps to Wring Well: A Concise Guide to Composition (3<sup>rd</sup> ed.). New York: Holt, Rinchart and Winston, Inc.
- Yannuar, Nurenzia et all. 2014. "Active and Passive Voice Constructions by Indonesian Student Writers". Theory and Practice in Language Studies, Vol. 4, No. 7, pp. 1400-1408, July 2014, Academy Publisher Manufactured in Finland ISSN 1799-2591