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The Predicative Role of Metacognitive Awareness in Teachers' Cognition on Noticing Concept

Zahra Zargaran[1*]

[1]Ph.D. in Applied Linguistics, University of Technology and Applied Sciences, Shinas, Sultanate of Oman

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CORRESPONDING AUTHOR

E-mail: zahra.zaragaran@utas.edu.om

ABSTRACT

Teachers' cognition, as an important entity in determining the level of efficient teaching, has been the target of recent studies. Metacognitive awareness is also claimed to be the manifestation of the underlining cognition. Therefore, this study took a new move in the area of teacher cognition research. It integrated teaching experience, one of the main factors of cognitive/metacognitive building blocks, in language noticing. It also managed to perceive the relation between teachers' cognition and metacognitive awareness, taking experience into account. For this, at first, NCI (Noticing Concept Inventory) was given to 60 experienced and novice teachers, then the same teachers took teacher metacognitive awareness Inventory (MALT). The independent t-test confirmed the role of teaching experience in conceptualizing noticing; In the next statistical step, Pearson Correlation Coefficient and Multiple Regression Analysis detected the relation between teachers' cognitive status and metacognitive awareness. Experienced teachers were found to be more metacognitively aware hence holding up higher level of noticing cognition. In the final step, the ANOVA pertained the procedural knowledge, as a metacognitive component, actively involved in the teachers' noticing cognition. Findings illustrated the key role of teaching experience in forming and modifying teachers' cognition on noticing which will be directly manifested upon the level of metacognitive awareness.

KEYWORDS: Metacognitive awareness; NCI; Noticing; Teacher cognition; Teaching experience

1. Introduction

1.1. Noticing hypothesis

One of the main impressive arguments of using consciousness in learning is noticing. There are several proposals regarding the conceptualization of this term that may face conflict because noticing is not a monolithic concept (Jung, 2009).

Noticing is born out of the overarching term 'attention' in language learning; Schmidt (1990, 1995, 2001) states that noticing is the process through which input becomes intake hence is absolutely central in language learning. He argues that to notice an item, attention and awareness on the part of the learner is necessary. In fact, it is claimed that without noticing no learning happens (Schmidt, 1990). Robinson (2003) defines Schmidt's noticing as what is detected and then activated through the allocation of attention and task demand that can change the extent and type of attention to the item. Tomlin and Villa (1994) underline three different concepts to cover noticing. They propose alerting, orientation and detection as three various factors in noticing. As Robinson (2003) states, of the three functions of attention, detection is parallel to noticing in Schmidt's (1990) terminology which means noticing enhances awareness, necessary for learning. Cohen (1996) gives a reconciliation of the

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previously proposed definitions of noticing. He states that noticing occurs prior to encoding in long term memory where detection happens in line with rehearsal in short term memory. However, according to Robinson (1995) "noticing can be identified with what is both detected and then further activated following the allocation of attentional resources from a central executive" (p. 297). Therefore, it shows a clear consensus upon noticing as an attentional function occurring in short term memory that can be encoded in long term memory.

The present study investigated the place of conscious attention to language forms following what Schmidt (1990) claims as "subliminal language learning is impossible, and that intake is what learners consciously notice" (p. 149).

Classrooms are highly dynamic, constantly changing, and characterized by multi-directed interactions among multiple persons and events. Therefore, teachers should develop the ability to create and act upon supportive learning opportunities in the moment (Eilam & Poyas, 2006). In this case, teachers' planning for gaining the most of teaching is an essential step in language teaching. Then, noticing can come into two related concepts including teachers' noticing vision as a mediator in the classroom and as a noticing provider to grasp learners' most attention to the elements of the target language to be taught.

The first issue embraces sociological aspect of teaching which monitors learning by noticing the interactional aspect of teaching and learning to enhance an ecological enterprise. From the second perspective, teachers' role to raise learners' language awareness and turn their attention to the intended parts to be learnt is of utmost importance and is the center of this study.

Place of noticing in language teaching, from the second perspective, shows that first of all, teachers are the individuals who will decide what the learners need to focus on. This act of planning and decision making is highly likely manifested in the teacher's ideology of what they do as teaching methodology.

Teachers' perception of noticing concept in their practicum would gain insight into several other unanswered questions in language teaching field. It can provide teachers the clues to recognize the importance of "respect the learners' internal syllabus" (Ellis, 2008) before/while planning a lesson and can provide the answer to the question of whether learning content and setting should be concentrated more. It also can end to the debate over usability of the tasks designed to receive the most conscious attention to the target form by students.

This very essential step to teaching purposefully would enlighten teachers to shape cognition on noticing and develop their knowledge about the underlining aspects as well as practical benefits it brings to the classroom. Borrowing the term noticing from second language learning and expanding it to the realm of language teaching can open up new horizons in teacher cognition and teacher development services even the methodologies and the designed materials to boost noticing and enhance the language leaning outcomes.

1.2. Teacher cognition

As a developing research field, teacher cognition research in second language education is characterized through a range of different terms, including BAK (beliefs, assumptions and knowledge, (Woods, 1996), beliefs (Basturkmen et al., 2004), pedagogic principles (Breen et al., 2001), pedagogical knowledge (Gatbonton, 2000; Mullock, 2006), practical knowledge (Meijer et al., 1999), and personal practical knowledge (Golombek, 1998). Based on this diversity, as Golombek (2009) argues, "given the fact that researchers were writing almost simultaneously, borrowing terminologies from general education to legitimate this line of research within L2 teacher education scholarship" (p. 158).

Commonly cognition is thought of as thinking or mental processing of information. Borg (2003) defines teacher's cognition in terms of "unobservable cognitive dimension of teaching" (p. 81). The cognitive approach to teach is under sever influence of many other factors such as context, previous learning and teaching experience (Borg, 2003, 2012), culture, interest in the career, level of education and self-reflection on teaching practices.

Teachers do what they know or believe, then their practice should naturally be a reflection of what they actually have gained through learning and teaching experience (Borg, 2011). In Borg (2015), teacher's cognition takes a broader scope accounting for what teachers know, believe and think about all aspects of their profession not just what they actualize in the classroom.

1.3. Metacognitive awareness

To act upon the knowledge and belief in teaching, teachers are in need of the ability to recognize and structure proper way of reflecting on what they do in response to their cognitive understanding. In other words, being aware of self-realization is necessary in successful teaching. Although metacognition has been defined for decades, but there is still no agreed-upon concept for it (Hacker et al., 1998). Flavell (1999) as the pioneer to define metacognition, describes it as "one's knowledge concerning one's own cognitive processes and products or anything related to them, e.g. the learning relevant properties of information or data" (p.232).

In line with Flavell (1999), metacognition endures self-reflection and appraisal. Therefore, teacher's metacognition may mean thinking about one's knowledge and belief. Efklides (2001) describes metacognition as being one's knowledge of their cognition, context, task, goal and anything to do with the way they know. In other words, metacognitive awareness arms teachers to learn from what they do, to shed light on their experience as a learner and a teacher.

Therefore, in this study, it is tried to discover the role of experience in developing and reflecting on teacher cognition embracing metacognitive awareness as a mediator tool to predict the type and extent of change and development in forming and using teachers' cognitive repertoire. To do so, the following questions were developed and answered through the research.

1. Is there any difference in conceptualizing noticing between experienced and novice teachers?
2. Is there any correlation between teachers' metacognitive awareness and the perceived concept of noticing in teaching/practicing language form?
3. What are the predictors of noticing in metacognitive awareness components?

2. Methodology

2.1. Participants

This study purported to find out the role of teaching experience in noticing conceptualization; it also strived to detect any possible correlation between teachers' noticing cognition and their level of metacognitive awareness, besides, metacognitive components were studies to figure out whether they could predict teachers' noticing cognition.

Therefore, 60 teachers (30 experienced and 30 novice) participated in the study. They were aged 23 to 48 and the only dividing factor to put them in two separate groups was the number of teaching years. According to Tsui (2005), teachers with more than five years of experience were grouped as experienced. They were teaching in private language schools in Ahvaz, Iran.

2.2. Instrument

NCI (Noticing Concept Inventory) which was developed in the study of Zargaran et al. (2020) was used to find the difference that teaching experience might create in perceiving the concept of noting among teachers. The questionnaire could help the researcher to find the place of teaching difference in conceptualizing noticing among two groups of experienced and novice teachers. It consisted of 51 questions on the 5 Likert scale from strongly agree (5) to strongly disagree (1). The inventory covered seven constructs of 1) Pedagogical effect, 2) Learners' characteristics, 3) Type of input, 4) Skill type, 5) Task type, 6) Time and 7) Measurement.

Another factor which can affect the use of noticing in the classroom by teachers depends on the presence and the level of teachers' metacognitive awareness. It means, teachers' metacognition helps them to shape and activate their beliefs in teaching.

An instrument that could quantitatively diagnose the effect and connection between this concept and noticing was the teacher metacognitive awareness Inventory (MAIT). This questionnaire is developed by Balcikanli (2011) which was based on Schraw and Dennison's (1994) metacognitive awareness inventory (MAI). This inventory assessed teachers' metacognition according to six metacognitive constructs namely, declarative knowledge, procedural knowledge, conditional knowledge, planning, monitoring and evaluating. It has 24 questions on the 5 Likert scale from strongly disagree to strongly agree which 1 equal to strongly disagree and 5 to strongly agree. The original reliability of the inventory was 0.85. However, Cronbach Alpha was used once more in the present study context and yielded the reliability of the questionnaire at 0.79.

2.3. Data analysis procedure

First NCI was distributed to 60 experienced and novice teachers to find and locate any differences between two groups of experienced and novice teachers in conceptualizing noticing concept in language teaching through running a Levene's t-test.

The inventory was distributed through three methods of electronic and self-administration with the presence of the researcher and self-administration without the presence of the researcher. In all the methods a cover letter was attached to the questionnaire explaining the purpose of the inventory and the average time required to do the questions. The administrators, in the method of self-administration without the researcher presence, were justified about any possible questions that participants might have asked and the researcher's absence could not bring about any problems in the process of data collection.

Then using the Metacognitive Awareness Inventory for Teachers (MAIT) could find any connection and prediction of using noticing in the classroom. Before using the inventory, it was tested for its reliability in the present research context;

after confirming the satisfactory result it was distributed to all 60 teachers who took the noticing questionnaire to find out any possible relation between teachers' metacognitive awareness when they use noticing in the classroom. To do this Pearson Correlation Coefficient was tallied. Finally, the researcher could predict the level of metacognitive awareness in teachers' decision on using noticing in their practicum by running Regression Analysis.

3. Results

As for the first research question of the study concerning the significant difference in conceptualizing noticing between experienced and novice teachers, the researcher, having distributed NCI to 60 participants, ran Independent Sample t-test to compare the two groups. The maximum score one could obtain on the inventory was 255 and the minimum score was 51 since the inventory consisted of 51 items in 5-likert scale.

Table 1. Descriptive Statistics for Experienced and Novice Teachers

	Teaching experience	N	Mean	Std. Deviation	Std. Error Mean
Scores from NCI	novice teachers	30	139.500	14.66	2.67
	experienced teachers	30	177.83	20.06	3.66

Using Descriptive statistics, the means and standard deviations of the scores obtained from novice teachers were: M= 139.50; SD= 14.66, and the means and standard deviations of the scores obtained from experiences teachers were: M= 177.83; SD= 20.06

Table 2. Independent Samples Test for Experienced and Novice Teachers

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Lower
Scores from NCI	Equal variances assumed	.82	.36	-8.4	58	.000	-38.33	4.53	-47.41	-29.25
	Equal variances not assumed			-8.4	53.0	.000	-38.33	4.53	-47.43	-29.23

Independent sample t-test offered two lines as displayed by Table 2 With reference to the Table, since the significant value was larger than .05, therefore, the first line was followed which referred to equal variances assumed. That is to say, since in this table, the significant value was .36 which was larger than .05; the first line was used to report findings. To discover if there was a significant difference between the two groups, the researcher referred to the column labeled Sig. (2-tailed). Since the Sig. (2-tailed) value was less than .05 which was .00, then there was a significant difference in the mean scores on the dependent variable for each of the two groups.

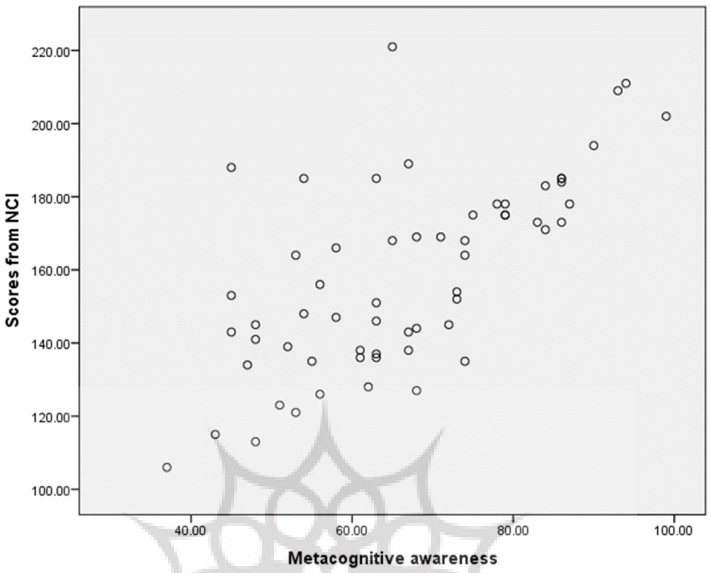
To determine the effect size between the two groups, the researcher used eta squared, and calculated it manually, using the formula for eta squared: t2 / t2 + (N1 + N2-2). As Table 4.2 shows, in this study the t value was -8.4. Therefore: (8.4)2 / (8.4)2 + (30 +30-2) = 70.56/128.56= 0.54. Following the guidelines proposed by Cohen (1996), the effect size of .54 is large. The guidelines (proposed by Cohen, 1996) for interpreting this value are: .01=small effect, .06=moderate effect, .14=large effect. That is, the significant difference between novice and experienced teachers was large. Experienced teachers had a much better noticing conceptualization.

As for the third research question of the study regarding the significant relationship between teachers' metacognitive awareness and the perceived concept of noticing in teaching/practicing language form, the researcher performed Pearson Correlation Coefficient. To obtain the data for metacognitive awareness, the researcher used the relevant questionnaire that

consists of 24 items on 5-likert scale. Therefore, the maximum score one could obtain on this questionnaire was 120 and the minimum score was 24. As of the perceived concept of noticing in teaching, data were already gathered from NCI. The maximum score one could obtain on the inventory was 255 and the minimum score was 51 since the inventory consisted of 51 items in 5-likert scale.

Before running the formula, the researcher, first, examined the assumptions of normality for the scores. She analyzed the scatter-plots to give a better idea of the nature of the relationship between the variables.

Figure 1. Scatterplot for Metacognitive Awareness and Concept of Noticing



As indicated by figure 1, the scatter-plot showed that the relationship was positive since if we drew a line through the points, the direction would be rather from lower left to upper right

Table 3. Descriptive statistics for metacognitive awareness and concept of noticing

	N	Min.	Max.	Mean	Std. Deviation	Skewness		Kurtosis	
	Stat.	Stat.	Stat.	Stat.	Stat.	Stat.	Std. Error	Stat.	Std. Error
Meta Cognitive Awearness	60	37.00	99.00	66.65	14.76	.15	.30	-.76	.60
Scores from NCI	60	106.00	221.00	158.66	26.02	.19	.30	-.53	.60
Valid N (listwise)	60								

Moreover, the researcher performed the preliminary analysis to ensure no violation of the assumptions of normality (i.e., skewness and kurtosis which were between +2 and _2 for the variable). Table 3 shows the means and standard deviations of the scores for metacognitive awareness (M= 66.65; SD=14.76) and concept of noticing (M= 158.66, SD=26.02).

Table 4. Correlations between metacognitive awareness and concept of noticing

		Scores from NCI	Metacognitive Awareness
Scores from NCI	Pearson Correlation	1	.677**
	Sig. (2-tailed)	-	.000
	N	60	60
Metacognitive Awareness	Pearson Correlation	.677**	1
	Sig. (2-tailed)	.000	-
	N	60	60

** Correlation is significant at the 0.01 level (2-tailed).

After performing the preliminary analysis to ensure no violation of the assumptions of normality, the results obtained from Pearson product-moment correlation coefficient showed the relationship between scores of metacognitive awareness and scores of noticing concept for the teachers. There was a large, positive correlation between the two variables [r=.67, n=60, p<.05], with higher scores on metacognitive awareness was associated with higher scores on concept of noticing, based on the guideline proposed by Cohen (1996):

r=.10 to .29 or r=–.10 to .29 small

r=.30 to .49 or r=–.30 to .49 medium

r=.50 to 1.0 or r=–.50 to 1.0 large

The last research question of the study dealt with the predictors of noticing in metacognitive awareness components entailing declarative knowledge, procedural knowledge, conditional knowledge, planning, monitoring and evaluation. The researcher performed Multiple Regression and the results obtained from the statistical analyses are reported as follows:

The researcher initially checked the following assumptions: Multicollinearity: This refers to the relationship among the independent variables. Multicollinearity exists when the independent variables are highly correlated (r=.9 and above). The correlations between the variables in the model were provided in Table 5 labeled Correlations below. The independent variables showed at least some relationship with the dependent variables (above .3 preferably).

Table 5. Correlation between noticing and metacognitive components

		Scores from noticing
Declarative Knowledge	Pearson Correlation	.471**
	Sig. (2-tailed)	.000
	N	60
Procedural Knowledge	Pearson Correlation	.745**
	Sig. (2-tailed)	.000
	N	60
Conditional Knowledge	Pearson Correlation	.337**
	Sig. (2-tailed)	.008
	N	60
Planning	Pearson Correlation	.336**
	Sig. (2-tailed)	.004
	N	60
Monitoring Knowledge	Pearson Correlation	.490**
	Sig. (2-tailed)	.000
	N	60
Evaluation	Pearson Correlation	.378**
	Sig. (2-tailed)	.003
	N	60

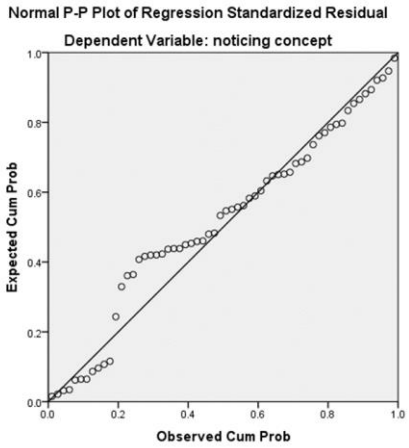
** Correlation is significant at the 0.01 level (2-tailed).

The results were presented in Table 5 as labeled Coefficients. Two values were given: Tolerance and VIF. Tolerance is an indicator of how much of the variability of the specified independent variables is not explained by the other independent variables in the model and is calculated using the formula 1–R2 for each variable. If this value is very small (less than .10), it indicates that the multiple correlation with other variables is high, suggesting the possibility of multi-collinearity (Tabachnick & Fidell, 2001). The other value given is the VIF (Variance inflation factor), which is just the inverse of the Tolerance value (1 divided by Tolerance). VIF values above 10 would be a concern here, indicating multi-collinearity.

The researcher used cut-off points for determining the presence of multi-collinearity (tolerance value of less than .10, or a VIF value of above 10). In this study, the tolerance value for each independent variable were not less than .10; therefore, there was no violation of the multi-collinearity assumption. This was also supported by the VIF value, which were well below the cut-off of 10. Therefore, there was no violation.

These assumptions were checked by analyzing the Normal Probability Plot of the regression standardized residuals (figure 2) that was accounted as part of the analysis. In the Normal Probability Plot the points should lie in a reasonably straight diagonal line from bottom left to top right, as displayed in figure 2. This would suggest no major deviations from normality.

Figure 2. Normal probability plot of the regression standardized residuals



The next step was to check Outliers, Homoscedasticity, and Independence of Residuals. Outliers were also checked by inspecting the Mahalanobis distances. To identify which cases were outliers, the researcher determined the critical chi-square value, using the number of independent variables as the degrees of freedom.

Table 6. Residual Statistics

	Minimum	Maximum	Mean	Std. Deviation	N
Pridicted Value	119.48	203.09	158.66	20.67	60
Std. Predicted Value	-1.8	2.14	.00	1.00	60
Standard Error of Predicted Value	2.85	15.20	5.34	1.97	60
Adjusted Predicted Value	117.27	193.54	157.49	19.75	60
Residual	36.06	35.74	.00	15.80	60
Std. Residual	2.16	2.14	.00	.94	60
Stu d. Residual	-2.20	2.20	.02	1.00	60
Deleted Residual	-37.42	46.72	1.16	18.50	60
Stu d. Deleted Reisdual	-2.28	2.29	.02	1.02	60
Mah al. Distance	.74	18.03	5.90	6.74	60
Cook's Distance	.00	.93	.03	12	60
Centered Leverage Value	.01	.81	.10	11	60

a. Dependent Value: Noticing Concept

The number of independent variables in this study was six and using Tabachnick and Fidell's (2001) guidelines, the critical value in this case should not exceed 22.46 and as indicated in Table 4.19 'Labeled Residuals Statisticsa' it was 18.03. Therefore, there was no violation.

Then, the researcher checked the value given under the heading R Square in Table 6, Labeled Model Summary box. This indicated how much of the variance in the dependent variable (scores on noticing concept) was explained by the model (which included the variables of declarative knowledge, procedural knowledge, conditional knowledge, planning, monitoring and evaluation).

Table 7. Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.794[a]	.631	.589	16.67

a. Predictors: (Constant), Evaluation, Monitoring Knowledge, Procedural Knowledge, Planning, Declarative Knowledge, Conditional Knowledge

b. Dependent Variable: Noticing concept

As displayed by table 7, in this case the value was .631. Expressed as a percentage (multiply by 100, by shifting the decimal point two places to the right), it implies that the model (which included scores on declarative knowledge, procedural knowledge, conditional knowledge, planning, monitoring and evaluation components) explained 63.1 percent of the variance in noticing concept.

To assess the statistical significance of the results, it was necessary to look in Table 3.8 labeled ANOVA. This tested the hypothesis that multiple R in the population equals zero (0).

Table 8. ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	25215.31	6	4202.55	15.11	.000[b]
Residual	14740.02	53	278.11	-	-
Total	39955.33	59	-	-	-

a. Dependent Variable: Noticing Concept
b. Predictors: (Constant), Evaluation, Monitoring Knowledge, Procedural Knowledge, Planning, Declarative Knowledge, Conditional Knowledge

The model reached statistical significance (F=15.11, Sig = .00, this really means p<.05).

Table 9. Coefficients

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
Constant	-205.20	42.64	-	-4.81	.00	-	-
Procedural Knowledge	15.81	2.48	.63	6.36	.00	.70	1.42
Monitoring Knowledge	3.35	2.51	.14	1.33	.18	.63	1.57
Declarative Knowledge	-.05	1.73	-.00	-.03	.97	.56	1.76
Conditional Knowledge	1.37	5.58	.07	.24	.80	.17	9.29
Planning	3.23	1.83	.16	1.76	.08	.75	1.33
Evaluation	.26	5.36	.01	.05	.96	.17	9.90

As shown in Table 9, to know which of the variables included in the model contributed to the prediction of the dependent variable, the researcher checked the column labeled Beta under Standardized Coefficients in the output box labeled Coefficients. *Comparing* the contribution of each independent variable, the researcher referred to the beta values. Looking down the Beta column, she found that the largest beta coefficient was 6.36, which was for procedural knowledge. This means that this variable made the strongest unique contribution to explaining the dependent variable, when the variance explained by all other variables in the model was controlled. The Beta value for other variable was not significant since the Sig value for each of them was more than .05 so that it made no significant contribution to the prediction of the dependent variable. Therefore, the best predictor of the scores of noticing concept was procedural knowledge.

4. Discussion

4.1. Teaching experience and teachers' cognition on noticing concept

To answer the first question, experienced and novice teachers were examined in terms of conceptualizing noticing based on the data generated from the inventory. The results revealed a significant difference between experienced and new teachers which means experienced teachers endowed a wider cognitive realization of the noticing concept. Consequently, teaching experience could be taken as the main point of difference in the teachers. This major factor would certainly modify or activate the cognitive and contextual awareness and turn teachers' attention from the mutual transmission of theoretical knowledge to their calculated steps in teaching practices. To be more precise, teaching experience can act as a mediator between two types of knowledge, declarative and procedural, to bridge in theoretical understanding of the noticing concept to practical performance in the classroom setting.

As Borg (2003, 2009) asserts teachers' performance is undoubtedly in the effect of teachers' cognition which includes teaching experience as one of its main constructive features. Another benefit that teaching experience can create for teachers is practical awareness of the teaching context, different learning styles and more importantly, developing effective teaching styles. Thus, teachers with more experience are believed to be more critical to teaching. In other words, what teaching experience does is to make changes, modify or create related factors so that teachers' theoretical and practical repertoire will result in distinguishing beliefs and teaching methodologies. As Richards (2011) explains, experience can develop pedagogical reasoning skills, that is how teachers can make use of teaching experience to cope with unplanned situations in teaching.

According to the presented Experience Model of Noticing Perception in language teaching (Zargaran et al., 2021), experienced teachers act differently because of teaching experience effects. In this case, the cognitive repertoire of teachers induces experience as an influential factor that can modify and change decisions in teaching and even develop theories out of practices. Teachers usually use their practical experience to devise new teaching theories to make a bilateral relationship between declarative and procedural knowledge.

In this respect, Phipps and Borg (2009) give a range of interactively connected components underlining teacher cognition including learning experience, academic education, teaching experience, reacting against the new setting, changes in doing teaching and instructional practices. All of these factors are highly under the influence of bidirectional interaction of experience and changes in beliefs. It means, teaching experience is responsible for the creation and modification of teachers' beliefs and thoughts in teaching in general and, according to the present study, in using noticing to teach language form in particular.

Therefore, teaching experience can be identified as a crucial factor in determining the type and scope of teachers' cognition and how it can develop and modify the beliefs and thoughts on the noticing concept in teaching language form. In other words, experienced teachers have developed more precise cognition on understanding and actualizing the concept of noticing in teaching language form.

Teaching experience has been strictly defined as the number of teaching years (Tsui, 2005); however, it underlines many other factors which can be promoted through teaching development programmes and in-service education. Therefore, knowing this can help teacher educators to think of new methods of teacher awareness and teaching experience-enhancing programmes. It can be a great assistance to teachers, especially newly hired ones, because teacher cognition and teaching experience have a bi-lateral relation and both affect one another.

4.2. Teachers' level of metacognitive awareness in determining their noticing cognition

To answer the next two research questions, a Pearson Correlation Coefficient was conducted; the result showed a correlation between teachers' cognition and the level of metacognitive awareness. Metacognitive awareness includes both knowledge of strategies and the knowledge of how and when to use them (Griffith & Ruan, 2005), that is teachers' cognition will be activated through metacognitive awareness. To make it clear, noticing cognition is the knowledge, beliefs and thoughts on language noticing while metacognition empowers teachers to gain understanding and regulate the checking of the knowledge and understanding through making all of these cognitive elements conscious (Tei & Stewart, 1985). Based on this, metacognition is the manifestation of cognition consisting of "knowledge and regulative skills that are used to control one's cognition" (Schraw, 1998, p.116). Metacognition can improve if the knowledge of cognition is increased (Schraw, 1998); in the case of the present study, experienced teachers with broader cognitive knowledge were found to be at a higher metacognitive level. Teaching experience fosters the amount and power of cognitive knowledge hence increasing metacognitive awareness. The result of the present study is in line with Schulman (1986) and Pintrich (1990) stating that experienced teachers are able to think ahead, plan and evaluate their plans and instructions which helps them metacognitively reflect on their thinking and performance.

This finding revealed that experienced teachers are endowed with more capability of metacognitive awareness that is assumed to be the key factor to be able to take control of their teaching practice. In other words, the mature cognition on the use of noticing through gaining experience in teaching can be in congruence with teachers' ability to plan and self-regulate their teaching; besides, they can reflect on their actions which will end up in more experience. Therefore, metacognitive awareness and teachers' cognition of noticing concept are in a mutual relation.

The researcher also strived to find the predicators of noticing concept in metacognitive awareness. In other words, which metacognitive components could predict the teachers' knowledge and thoughts on noticing. The AVOVA detected the predicator as the procedural knowledge component of metacognition. Teachers' awareness of practical cognitive knowledge, teaching strategies, to implicate noticing in their teaching practice made them more academically conscious to realize the noticing concept. Procedural knowledge allows cognitive processes to emerge (Flavell, 1987) hence the knowledge of using particular tasks, strategies and the time of their application are major elements of controlling the knowledge of noticing. Knowing how to take benefits from noticing in language teaching increases the sense of teachers' automaticity (Pressley et al., 1987) and pedagogical understanding (Zohar, 2006) of the noticing concept. To put it another way, experiential knowledge of

teachers enhances the possibility of using procedural knowledge and profiling it as a part of their planning and deciding upon what and how to teach generally and to use noticing in teaching language form particularly in the resent study. According to Armour-Thomes (1986), teachers should be aware of their decisions and be prepared to modify the pre-planned instruction, in this case, teaching experience increases the metacognitive awareness through making the decision making a conscious process.

When teachers are aware of strategies they use, they can reflect on their teaching performance and can regulate the activities they use to control teaching hence increasing the utility of various strategies (Schraw, 1998). In the present study, metacognitive awareness, in terms of procedural knowledge, could impact teachers' understanding and the decision to use noticing.

This study showed that gaining experience not only did increase the quality of teachers' cognitive conceptualization of noticing, but it also did maximize the occurrence of guided noticing in their teaching practice. Accordingly, teaching experience involves the increase in the capacity of teachers' cognition hence taking more constructivist approach to deal with teaching barriers. Consequently, it is reflected back onto teachers' conscious awareness of their teaching acts.

Furthermore, the more experienced teachers are, the more their cognitive conceptualization of noticing is predictable; it also means the teachers with higher level of teaching experience show a remarkable association with a higher quality of procedural knowledge, a major element of metacognitive awareness at the stage of instruction. In other words, novice teachers' lack of metacognitive awareness resulted in less use of cognitive power to conceptualize noticing hence weaker practice in terms of noticing in teaching language forms.

The findings especially in the first phase of the study, where the conceptual features of language noticing were discovered, can enrich the teacher development programs particularly pre-service courses to make a transformative approach to enhance teachers' awareness on language noticing. The next practical implication is in the area of material design; there is a need to implicate the results of this study to increase the level of language noticing.

5. Conclusion

The major investigated point in this research study was teaching experience that came to be a substantially influencing element of teacher cognition. Teaching experience, here the number of teaching years, is at play when forming teachers' cognition and gives teachers a practical demand on how to act and reflect on their teaching practice. Interestingly, teaching experience took the cornerstone of differences in both theoretical and practical manifestations of teachers' cognition on what constitutes noticing and how it can be applied in the classroom.

It was also discovered that procedural knowledge as metacognitive awareness factor can predict the level of noticing perceived by language teachers. The main implications dragged out of the findings are first targeted to curriculum designers who can plan a more active, cognitively-oriented role for teachers. This can be possible if language teaching curriculum designers look for setting an actual context for teachers to experience cognitive perception of noticing or devise more practical syllabi to allow teachers to experience noticing in their teaching.

Another explorative point of the present study was how the theoretical and practical decisions come into conflict in the actual context of classroom. Therefore, the congruence between what and how of teaching as well as the drift between theory and practice can reach its minimum level if teachers are able to make a balance between theory and practice; it can occur by training teachers on critical thinking and practicing a reflective approach to teacher pedagogy.

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