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Exploring the Relationship among EFL Teachers' Critical Thinking, Autonomy and Experience in Public and Private Schools

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ABSTRACT

The research delved into the connection between English Language instructors' critical thinking, autonomy, and teaching experience among some public and private instructors. Two different sets of instructors including some private institute and high school instructors were selected from two major cities in Khorasan Razavi, Iran. The results from Path Analysis indicated that all subcomponents of instructors' thinking critically except deduction could significantly predict instructors' independence. Moreover, experience more effectively and remarkably predicted their independence. Accordingly, from among the five subcomponents of instructors' CT, four sub-constituents were predicated by experience. Nevertheless, assessment and evaluation could not be properly predicted by experience. Findings also indicated that thinking critically could rightly and moderately be related to autonomy whereas there was a positively weak association between thinking critically and experience. Accordingly, findings pointed to a sizeable distinction between the two EFL settings regarding instructors' autonomous behavior with non-public EFL instructors being more self-sufficient, self-directed, and self-reliant than their counterparts in public high schools. In the same vein, there was no substantial distinction between the two settings concerning thinking critically.

Keywords: Autonomy, Critical Thinking, EFL Teachers, Professional Experience

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1. Introduction

Critical thinking (CT) has recently attracted extra attention as being an essential skill for language teachers. It can be considered as the missing link in teacher education programs that intend to prepare EFL instructors more effectively. More recently, proper consideration has been directed to the ways educators think and in so doing teaching is described as a reflective practice (Richards & Farrell, 2005). The philosophy of CT, primarily based on Dewey (1933), entails four vital mentalities, 'acting reflectively or thinking critically, 'broad-mindedness', 'accountability', and dedication or sincerity. After that, many scholars tried to define the term CT. In the previous definitions, CT was defined as how to analyze, synthesize, and evaluate (Paul, 1985) which entailed two interrelated processes of identification and imagination and exploration of others (Brookfield, 1991).

What looks clear is that to be able to teach, teachers are expected to deliberate on their profession judgmentally, and on their students as well. Whereas improving this ability is highly crucial for our teachers, most studies related to critical thinking have concentrated upon students (e.g., Dantas-Whitney, 2002; Faravani, 2006). Nevertheless, this study intended to ascertain the association between and among teachers' thinking critically and their autonomy. Therefore, another exclusive element associated with instructing, confirmed to be of significance, was Teacher Autonomy (TA).

There is convincing research indicating Teacher Autonomy (TA) to be a significant factor in determining success for both language learners (Amirian & Azari Noughabi, 2017; Little, 2009; Shirzad & Ebadi, 2020) and language teachers (Azari Noughabi & Amirian, 2021; Cheon et al., 2020; Noughabi et al., 2020; Pashazadeh & Alavinia, 2019; Pogere et al., 2019). Smith (2000, p. 89) defined TA as "the ability to develop appropriate skills, knowledge and attitudes for oneself as a teacher, in cooperation with others." In another definition, Little (1995) described TA as instructor' ability to be involved in self-managed instruction. It seems that the notion of TA has significantly been improved over the years and is still moving ahead.

This study probes into EFL teachers' autonomy and critical thinking in Iran within high schools and English language institutes. As a matter of fact, in Iran, English language learning curriculum within high schools is mostly grammar-centred and oral skills receive little attention. By contrast, private language institutes usually provide courses affiliated with more recent language learning techniques and approaches with greater focus on conversational skills (Ghanizadeh & Rostami, 2015). In fact, as there is little opportunity that students learn English conversation via the public-school systems in Iran, numerous students enrol in conversation classes in private institutions (Sadeghi & Richards, 2015).

Furthermore, teacher experience plays a key role in educational frameworks. However, there is controversy in the literature about existing a linear association between teaching experience and teaching efficiency (Brandenburg et al., 2016; Klassen & Chiu, 2010). Although a line of research maintains that novice educators do not have the requisite knowledge to understand the complex interrelationships in academic tasks (e. g., Melnick & Meister, 2008), other claim that there is no evidence that novice teacher are less competent than experience ones (e.g., Graham et al., 2020). Therefore, similar studies are required on the impact of experience in the teaching process. Moreover, there has been so far little endeavour to explore how teaching experience might relate to teachers' critical thinking and their autonomy levels. To fill this gap, the motive behind this research was to take a look at the connection between and among three important features of effective teaching (i.e., teacher experience, critical thinking and autonomy). The context of teaching is a major factor in effective teaching and should be closely considered especially in EFL setting (Engin, 2014). Thus, as a second purpose of the study, teachers in two different contexts of public versus private schools are compared in terms of their critical thinking and autonomy levels.

2. Literature Review

As an important characteristic of successful language learners and teachers, Critical Thinking (CT) has been extensively researched recently (Li, 2019; Richards & Farrell, 2005; Toy & OK, 2012). Studying CT development among learners, Hashemi and Ghanizadeh (2012), in an experiment on the effect of Critical Discourse Analysis (CDA) over CT ability among Iranian students, found out CT ability of participants is positively influenced by CDA.

In a rather recent study, Shangarffam and Rahnama Roud Poshti (2011) examined the connection between and among thinking critically, self-effectiveness, and attitude towards efficacious instruction among teachers. findings showed a significant association between thinking clearly and instructors' self-effectiveness and their perceptions over what efficacious instruction meant and involved. Nonetheless, merely two subcomponents within critical thinking, (i.e., analysis and evaluation) had significant correlations with perceptions of effective teaching.

In a recent study, Janssen et al. (2019) aimed to recognize an important aspect of CT (i.e., attributes identified with educators' Cognitive Reflection Test (CRT) execution and their overall mentalities towards CT). Their discoveries of auxiliary condition displaying showed that there was a noteworthy connection between CRT execution and there was more ground towards effortful deduction, instructing in a more technological manner, and

a more significant level of training. Moreover, thinking dispositions were proven to be correlated with teachers' discerned significance of teaching CT.

As for assessing the effect of teaching CT, Toy and Ok (2012) conducted an experimental study in an occupational teacher education plan for instructors in Turkey to measure the impacts of a CT-put together instructive course with respect to content knowledge information and CT. Their findings of ANOVA and ANCOVA indicated that, despite the fact that the students presented through CT instructions had improved in terms of scholarly accomplishment and CT disposition than in conventional guidance, the outcome was not significantly noteworthy.

As it is indicated by the reviewed studies, there is not a general agreement on the relationship with regard to CT among teachers and their personal features including age, experience, and perception of effective teaching. Moreover, there is a scarcity of exploration on the relationship between CT and autonomy, which calls for further research on this issue.

In the current investigations, studies are brought on teacher autonomy to see how it could be settled through instructor training interventions; and about the evolving practice and procedure of instructor autonomy as to their work and life. In an early study, Little (1995) emphasized that instructors will probably be more successful to enhance and boost their students' autonomous behavior if they have been educated to be more self-directed, self-reliant and independent themselves. Exploring teachers' attitude toward learner autonomy, Amirian and Azari (2017) found that most of teachers were positive about autonomy in learners, but at the same time they expressed doubts about the practicality of learner autonomy.

With regard to teacher autonomy, recently Noughabi et al. (2020) probed into the relation between in-service teachers' autonomy on the one hand and engagement, emotions, and immunity on the other hand. Immunity is a specialized term, which has recently been presented as an enormous defensive expression allowing language educators not to take on difficulties inside educational settings. Strikingly, the discoveries demonstrated that autonomy had the most grounded informative force in predicting insusceptibility among experienced in-service EFL educators. They concluded that the latter group of instructors with chances to practice it showed commitment, and managed feelings, which this brought about much improvement in their immunity improvement. Similarly, Azari and Amirian (2020) reported that autonomy in teachers might influence their beliefs in terms of self-regulation and self-efficacy indicators.

Khezerlou (2013) inquired about instructors' autonomous behavior on many respects including (a) choosing appropriate techniques in teaching, methodologies and strategies just as the essential educational program. Likewise, (b) instructor engagement in dynamic practices and procedures of

making decisions and (c) instructors' utilization of individual activities in taking care of their vocational issues were explored. The results in his study showed that in three teacher autonomy dimensions, Turkish teachers' autonomy perceptions were higher as compared with Iranian teachers. Furthermore, it was observed that there was less autonomy as exercised by male instructors with MA degrees than female educators having BA degrees. To wrap things up, among both Iranian and Turkish educators, decision making dimension was the most grounded indicator of instructors' autonomy index. In another study, Ok (2016) investigated the apprentice teachers' desires which drove them to turn into self-directed behaviour in an EFL teacher training setting. In keeping with the results of the study, there was an optimistic inclination in the direction of both internal (in-class) and external instructor desires (out of class) on the part of participants. Explored written views also offered considerable clues aimed at achieving self-sufficiency within classroom practices and apart from it.

It can be claimed that teachers require to be mostly responsive towards inside and outside desires within novice teachers to aid them to turn into independent agents by discovering their own habits. As it was reviewed here, teacher autonomy has been scrutinized concerning many factors including self-efficacy, reflective teaching, engagement, emotions, immunity, etc. Yet, what is still unclear is how a teacher's autonomy interacts with his/her critical thinking skills and years of teaching experience.

2.3. Teacher Experience

Regarding teacher experience and how it affects their performance mixed findings are reported. Pilvar and Leijen (2015) presented a test aimed at investigating contrasts in judgment between skilled and apprentice teacher once tackling difficult state of affairs in pedagogical domains. They concluded that more skilled teaches by and large arranged their action plans better than apprentice instructors.

By contrast, in a recent study Graham et al. (2020) by exploring this fact that beginning instructors are less skilled than experienced instructors, offered no indication of lower educating quality for beginning instructors. Instead, they found little educational decrease with regard to 4-5 years of experience. These mixed results on the impact of teacher experience on his quality of instruction legitimizes further inquiries about this matter.

Although previous research has addressed critical thinking, teacher autonomy, self-efficacy, reflectivity, and other significant characteristics of language teachers, there is no study, to the best knowledge of the researchers, dealing with the link between and among teacher experience, CT and teacher autonomy in a single study contrasting the two public vs. private school teachers. Such comparisons concerning these variables is important because

previous research highlights the significance of context in teacher's performance.

As a matter of fact, Gholami et al. (2016) indicated that a significant variance is present amongst public and private school teachers with regard to their activities. They found that EFL instructors affiliated within high school but with teaching experiences in language schools had tuned to be more tightly related to the precepts of communicative language teaching (CLT) and could turn into specialists of maintainable language teaching. In spite of acknowledging autonomy and critical thinking as a basic objective in each level of instruction, EFL instructors have been criticized for not preparing students with adequate language capacity and basic thinking abilities. Therefore, this research endeavors to investigate the possible interrelationship among the three variables of autonomy, critical thinking and teacher experience in order to cast light on the dynamic interplay of these critical teacher characteristics. To this aim, the subsequent research questions were raised:

1. Is there a significant relation between EFL instructors' thinking critically, experience and their autonomous behavior?

2. How does EFL teachers' autonomy level vary in public and private contexts?

3. How does instructors' thinking clearly vary in public and private settings?

3. Method

3.1. Participants

Two dissimilar sets of instructors comprised the participants in the research. The questionnaires were electronically mailed to teachers on social networks and were voluntarily filled by n= 180 language teachers both at private institutes and public schools. The sample size is adequate according to Kline (1998) who argues that in path analysis, an adequate sample size ought to constantly exceed the parameters. Ninety EFL private language institute teachers constituted the first group and the second group (n= 90) was taken from EFL high school teachers residing in two major cities in *Khorasan Razavi*, Iran. Their specialty involved English language teaching, translation, and English literature. Ninety instructors comprised the first set who were teaching at different private language institutes. Both male (n= 39) and female (n= 51) teachers whose age ranged from 23 to 38 (M = 28.19, SD = 3.89) having up to 15 years of instructing experience (M= 6.41, SD = 2.19) were nominated. The second group consisted of 90 EFL instructors involved in educating pupils in various public high schools. Sample 2 involved 36 female and 54 male English language teachers whose age ranged from 27 to

44 (*M* = 37.79, *SD* = 5.11) with 1 to 20 years of instructing experience (*M*= 11.10, *SD* = 4.37). All the participants filled out a permission document and were reassured that their data would remain anonymous.

3.2. Instruments

The main instruments included two questionnaires California Critical Thinking Skill Test -Form B (CCTST) (Appendix A), and Teacher Autonomy Scale (TAS) (Appendix B).

3.2.1. California Critical Thinking Skill Test- Form B (CCTST)

The CCTST- form B in Persian was employed to measure instructors' ability to think critically. It consists of 34 multiple-choice items and measures five items of thinking critically: Analyzing (9), evaluating (14), inferencing (11), rationalizing deductively (16 items), and rationalizing inductively (14). The reliability stood at 0.78 to 0.80 using KR 20. Khodamoradi et al. (2006) rendered this into Persian. They detailed reliability of 0.62 for the full test and 0.77 for the evaluating part, 0.77 for the inferencing section, 0.71 for the analyzing, the rationalizing deductively and rationalizing inductively sections.

3.2.2. Teacher Autonomy Scale (TAS)

The Teacher Autonomy Scale (TAS) was validated by Pearson and Hall (1993). Eighteen subcomponents on the scale were initially schemed to glean the level of teacher autonomy in the four following areas: (1) choosing tasks and things, (2) classroom standards of conduct, (3) Designing and sequencing lessons, and (4) making decisions personally. The questionnaire was a 4-point Likert- scale, varying from 1 (absolutely wrong) to 4 (absolutely right) to do away with neutrality option in responses. Pearson and Moomaw (2006) conducted a study to examine the construct validity of the Teacher Autonomy Scale (TAS). Internal reliability got much better and stood at 0.83. The consistency of the instrument was examined using Cronbach Alpha, which equaled 0.79.

3.3. Procedure

Data was gathered in May and June, 2017. Two questionnaires of thinking critically and instructors' autonomy were utilized. All the participants were provided with two possible options: answering the items either in-person or online. There was no limitation of time in filling the questionnaires. The participants answered the paper- and- pencil questionnaires that took about an hour in the presence of the researcher. SPSS was utilized to analyze data including descriptive statistical analysis,

consistency report of the questionnaires, Pearson correlation coefficient, t-test, and Analysis of Moment Structures for path analysis.

4. Results

Firstly, to examine the normality, researchers employed the Kolmogorov-Smirnov. The results indicated that the gained sig value for all variables is more than .05. Subsequently, it could be securely stated that the data was normally distributed over all the factors, and parametric measurements were considered suitable to be utilized for the study. Table 1 presents descriptive statistics of subcomponents of Critical Thinking, autonomy, and experience.

The possible range of scores for analysis is between 0 and 9, for evaluation is between 0 and 14, for Inference is between 0 and 11, for inductive reasoning is between 0 and 14, and for deductive reasoning is between 0 and 16. As it can be seen in Table 1, the mean score of total critical thinking (CT) is 16.07 with a standard deviation of 6.68. Furthermore, for total CT, the lowest minimum score is 1.00 and the highest minimum score is 30. The possible range of scores for Autonomy is between 18 and 72. Besides, the mean score of teachers' reports in Autonomy is 41.23 with standard deviation of 11.46. Moreover, the minimum score for Autonomy is 23.00 and the maximum score is 67.00. The range of score for teachers' experience is between 1 and 20. As displayed, the teachers' mean score for experience is 8.22 with standard deviation of 4.43, and the number of teacher participant was 180.

Table 1
Descriptive Statistics of sub-constructs of Critical Thinking, Autonomy, and Experience

	N	Minimum	Maximum	Mean	SD
Analysis	180	.00	8.00	5.22	2.60
Evaluation	180	.00	11.00	5.99	3.29
Inference	180	1.00	9.00	4.85	3.08
Inductive	180	1.00	10.00	7.94	3.69
Deductive	180	.00	11.00	8.81	4.01
Total CT	180	1.00	30.00	16.07	6.68
Autonomy	180	23.00	67.00	41.23	11.46
Experience	180	1.00	20.00	8.22	4.43

Two path models were proposed to examine the interrelationships between teachers' CT, autonomy, and their experience. To scrutinize the structural associations, the projected models 1 and 2 were verified by means of Amos 24 statistical package**.** As demonstrated in Table 2, the chi-square value (250.41), the chi-square/df ratio (2.216), GFI (0.923), CFI (0.977), and

RMSEA (0.057), are within the satisfactory fit thresholds. Therefore, it is indicated that the proposed model 1 fits the data well. In addition, all the fit indices, the chi-square value (220.73), the chi-square/ df ratio (2.122), GFI (0.910), CFI (0.907), except RMSEA (0.099), are within satisfactory range. According to Schreiber (2006), even if one or two of fit indices did not lie within acceptable thresholds, the model would be acceptable. Therefore, it can be determined that the proposed model 2 also fits the empirical data well.

Table 2
Goodness of fit indices

	X^2	df	X2/df	GFI	CFI	RMSEA
Acceptable fit			<3	>.90	>.90	<.08
Model 1	250.41	113	2.216	.923	.977	.057
Model 2	220.73	104	2.122	.910	.907	.099

Figure 1.
The schematic illustration of the relations among analysis, evaluation, inference, autonomy, and experience

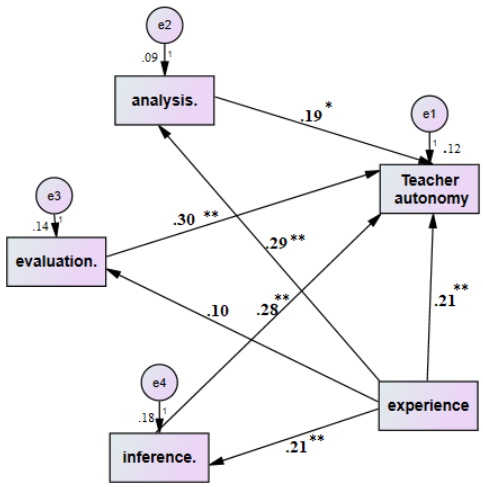
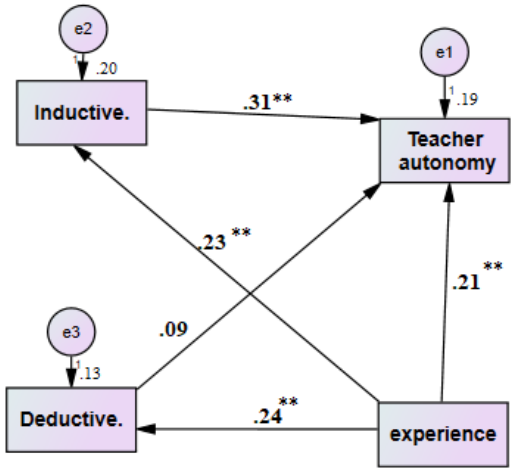


Figure 2

The Schematic depiction of the Relations among Inductive and Deductive reasoning, Autonomy, and Experience



To examine the causal power of relations among the elements, the standardized estimations were inspected. As indicated in Figures 1 and 2, all sub-factors of EFL teachers' CT except deductive reasoning (β = .09, p = .07), are positive significant predicators of their autonomy: analysis (β = .19, p<0.05), evaluation (β= .30, p < 0.05), inference (β = .28, p < 0.05), inductive reasoning (β= .31, p < 0.05). Furthermore, experience could positively and significantly predict autonomy (β = .21, p < 0.05). Accordingly, from among the five subcomponents of instructors' CT, four sub-constituents were predicated by experience: analysis (β = .29, p < 0.05) inference (β = .21, p < 0.05), inductive reasoning (β = .23, p < 0.05), and deductive reasoning (β = .24, p < 0.05). However, experience did not predict evaluation (β = .10, p =.108). Table 3 designates the results of association between instructors' total CT, autonomy and experience.

Table 3

Correlation between Teachers' Critical Thinking, Autonomy and Experience

		Autonomy	Experience	Critical thinking
Autonomy	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	180		
Experience	Pearson Correlation	.281**	1	
	Sig. (2-tailed)	.000		
	N	180	180	
Critical Thinking	Pearson Correlation	.402**	.343**	1
	Sig. (2-tailed)	.000	.000	
	N	180	180	180

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

As demonstrated in Table 3, total CT is positively but moderately correlated with autonomy (r =.402, p < .01). Moreover, the correlation between CT and experience was positively weak and significant (r = .343, p < .01). Finally, the association between autonomy and experience was also positively weak and significant (r =.281, p < .01).

To address the second question, researchers ran an independent-samples *t*-test. The descriptive statistics of public and private teachers' scores in teachers' autonomy are displayed in Table 4.

Table 4
Descriptive Statistics of Public and Private Teachers' Scores on Autonomy

	Gender	N	Mean	Std. Deviation
Teachers' Autonomy	public	90	35.96	11.24
	private	90	46.51	9.02

Table 4 indicates that number of participants in both contexts are equal (90 participants). As displayed in Table 4, the mean score of private instructors in autonomy (46.51) is higher than public instructors' score (35.96).

Table 5
T-test for Teachers' Autonomy Level in Public and Private Contexts

	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Teachers' Autonomy	-6.9	178	.000	-10.54	1.519

Levene's test confirmed the homogeneity of variance on the teachers' autonomy (p = .221). As revealed in Table 5, the two settings significantly differed from one another regarding the level of autonomy (t= -6.93, p = .000).

To answer the last research question regarding teachers' varied CT, an independent-samples *t*-test was run between public and private contexts. Table 6 demonstrates the descriptive statistics of public and private instructors' scores in teachers' CT.

Table 6
The Descriptive Statistics of Public and Private Teachers' Scores on Critical Thinking

	Gender	N	Mean	Std. Deviation
Critical Thinking	public	90	15.35	6.54
	private	90	16.94	5.79

Table 6 indicates that the number of participants in both contexts are equal (90 participants). Also, the mean score of private teachers in critical thinking (16.94), is one score higher than public teachers' score (15.35). To test whether this difference is significant, independent samples *t*-test was performed (Table 7).

Table 7
Independent-Samples T-Test for Teachers' Critical Thinking Level in Public and Private Contexts

	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Teachers' Critical Thinking	-1.53	178	.127	-.596	.454

Levene's test confirmed the homogeneity of variance on the teachers' CT (p = .087). As indicated in Table 7, there is no significant difference between two types of contexts in CT ability (t= -1.53, p = .127). It means that teachers' level of CT is the same in public and private contexts of Iran.

5. Discussion

The central drive behind this research was to delve into the hypothesized associations between EFL teachers' critical thinking, experience and their autonomy. In order to clarify the results, each research question is discussed separately.

5.1. The Relation between Instructors' Thinking Critically, Experience and their Autonomous Behavior

As indicated by the results, total teacher CT (analysis, evaluation, and inference) correlated positively and moderately with teacher autonomy. In addition, among sub-constructs of CT, evaluation had the highest relationship with teacher autonomy. The results were not unexpected based on early definition of critical thinking. Thinking critically is traditionally described as a vital objective of education, as a set of well-defined abilities for problem solving or decision making, as a purely reasonable procedure (Burbules, 1995). Furthermore, Ennis (1991) described critical thinking as rational thought that is concentrated on determining and choosing what to act and

believe in. Hence, this considerable association was not unforeseen as the concept of thinking critically enhance the skill to make various decisions. Similar results were found with learners' participants by Nosratinia and Zaker (2012).

Besides, the results of correlation between another categorization of CT (inductive and deductive reasoning) with autonomy indicated a positive significant relation between inductive reasoning and autonomy. However, no significant relation existed between rationalizing deductively and instructors' autonomous behavior. Rationalizing deductively is the act of inferencing from one or more propositions or argument to get a rationally assured result. It is referred to as top-down logic (Sternberg, 2009). On the other hand, inductive reasoning happens when persons collect bits of particular information together and utilize their own knowledge and experience as well as make an opinion regarding what have to be true. It is occasionally referred to as bottom-up logic (Facione et al., 1994). This outcome is in line with several other researchers' research (Gollin, 1998; Haight et al., 2007; Wang, 2002) which stated that inductive thinking and instruction make an environment of autonomous, significant learning. It reinforced active instead of passive involvement of learners in the learning procedure. In sharp contrast to an orthodox deduction way, the induction method entails generalization procedure or figuring out regulations and axioms from provided instances instead of direct mastery over precepts and principles (Erlam, 2003; Gollin, 1998; Herron & Tomasello, 1992; Wang, 2002). This act and practice of rule-discovery enhances and promotes teacher and student self-reliance and independence and augments learning gains.

Moreover, the results of Pearson correlation and path analysis revealed that there existed a positively weak and significant association between teachers' autonomy and years of teaching experience. In other words, experienced teachers have higher levels of autonomy than novice teachers. This finding is incongruent with the obtained findings by Pearson and Hall (1993) as in their study, they found that both novice and proficient teachers had comparatively low level or little control of their autonomy. Novice and proficient teachers confirmed no substantial variation of autonomy on the dimension of professional improvement due to their diverse professional expectations and psychological autonomy.

Results of Pearson correlation and path analysis displayed a weak positive and significant relationship between teachers' CT and years of teaching experience. In other words, experienced teachers have higher levels of CT than novice or unexperienced teachers. This result aligns with the findings of Kuhn (1999) who reported that CT is a developmental procedure that happens through the maturation of a person starting at an early age and

growing during the lifespan. Similar outcomes were found by Pilvar and Leijen (2015), who maintained that, when encountering difficult moments in their teaching, experienced instructors typically organize, scheme, and sequence their lessons compared to inexperienced instructors.

5.2. EFL Teachers' Varying Autonomy Levels in Public and Private Contexts

The results revealed that the two settings significantly differed from one another in terms of autonomy level. Private English instructors were more autonomous than their counterparts in public schools. It signals that private EFL teachers in Iran show greater levels of autonomy than public EFL teachers. This indicated that private teachers sensed more autonomy than public ones in (a) selecting suitable instructing approach, methodology and stratagems to live up to student requirements, (b) adopting adaptable and adjustable curricula, (c) being more personally concerned, involved and engrossed in the process of making proper and more informed decisions and (d) taking the lead to resolve and address vocational issues. In fact, language institute instructors are primarily contract instructors who might typically possess higher skills in using English and be more skilled than their counterparts in high schools. Moreover, private institute instructors are generally younger and more passionate and their learners often display and enjoy a higher level of enthusiasm and energy than those learning English at public schools (Sadeghi & Richards, 2015). Consequently, it can be claimed that private institutes have a less centralized EFL curriculum and are less controlled than public schools. This may be due to the fact that public instructors in their educational settings are not given satisfactory opportunities to concern reasonable teaching methodology to meet student requirements, to free themselves from heavy overdependence on the educational program in their instructing exercises, to contribute more diversely to decisions made at schools and to employ creative ways to address their vocational issues. On the other hand, instructors in public schools abide by preset syllabi and textbooks already determined and imposed by Ministry of Education. Moreover, English is not learned as a skill and almost all teaching is delivered in Farsi with English not used as means of communication (Sadeghi & Richards, 2015). Khoshsima and Hashemi Toroujeni's (2017) also argue that two absolutely dissimilar educational systems are employed for ELT program in public and private schools. Even though, millions of Iranian students learn English in public schools through the information that are prearranged and delivered by the Ministry of Education, their requirements, interests and current levels of proficiency are not taken into account. As Phipps and Borg (2009) rightly contend, many teachers are limited in practicing autonomously and cannot act freely

according to their beliefs because of situational elements such as imposed curricula, time limitations, and high-stake exams.

5.3. Instructors' Capability to Think Critically in Public and Private Contexts

Finally, the results pointed to a non-significant difference between the two setting types. It means that teachers' level of critical thinking is the same in public and private contexts of Iran. In other words, in both settings instructors think both critically and non-critically. The rationale behind according to Khorasani and Farimani (2010), is due to the unfamiliarity of the instructors in both settings with the concept of CT. Surprisingly, critical thinkers in Iran are not officially and formally trained to become critical thinkers, and CT is indeed a concept that is different from one person to another person. Definitely, there is a lack of research on CT comparing public and private teachers and further study can cast light on this issue.

6. Conclusion and Implications

The principal objective of the research was to probe the relation between instructors' CT and their autonomy in both public and private EFL settings. Moreover, it explored the correlation between instructing experience and teachers' CT on the one hand and instructing experience and instructors' autonomous level on the other hand. Finally, the study also investigated the possible disparities between the two distinct settings concerning instructors' CT and their autonomy.

The results indicated that all sub-constituents of instructors' CT except rationalizing deductively could both positively and significantly predict their autonomous behavior. In the same vein, experience could also both positively and significantly predict autonomy and CT. As far as autonomy level is concerned, the findings indicated a meaningful difference between the two different contexts. Private instructors were more self-directed, self-reliant, and independent than their counterparts in public high schools. Besides, findings pointed to a non-significant relation between the two setting types with regard to CT. This study proposed a new model of instructors' CT by relating the concept to autonomy and experience within foreign language learning.

The outcomes of the study emphasize the significance of endorsing teachers' CT in language classes in order to improve their CT ability that is rationale, reasoned, and goal oriented. Therefore, it is essential for teacher educators to improve the aptitude to think critically within teachers by considering that a teacher's work has both ethical and intellectual extent. In other words, what teachers do is shaped by what they think.

The implication of this study for teacher educators and policy makers is that teacher autonomy is the key to teacher success. It is expected that teachers receive better professional development to become more autonomous and fight for autonomy within each environment of teaching whether public or private schools. It is suggested that the same study be replicated with a bigger sample to enhance the generalizability of the results. Also, further research is suggested to explore instructor autonomy and CT in the foreseeable future. A longitudinal approach utilizing various research methods might be necessary to identify differences between novice and experienced teachers over time. Finally, as teacher autonomy is now decomposed at least into six distinct sub-constituents: autonomy over curriculum, assessment, pedagogy, student discipline, classroom environment, and professional development (LaCoe, 2008), future research can address the subcomponents of teacher autonomy and their interplay with components of CT.

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Appendix A: California Critical Thinking Skill Test -Form B (CCTST)

DIRECTIONS: Read each question carefully, then select the best choice from among those provided. There are 34 test questions. Each test question is of equal value.

1. Passage: "Charlie, don't worry about it. You'll get a promotion someday. You're working for a good company. Right? And everyone who works for a good company gets a promotion sooner or later." Assuming all the support statements are true, the conclusion

A□= could not be false.
B□= is probably true, but may be false.
C□= is probably false, but may be true.
D□= could not be true.

2. Passage: "Look at those cars speeding one right behind the other, all lined up perfectly straight. They are so close to each other that if any car suddenly stops, the one behind will smash into its rear end. So, if the first car stops suddenly there will be a crash involving all of them," Assuming its premises are true, the main claim of this passage

A□= could not be false.
B□= is probably true, but may be false.
C□= is probably false, but may be true.
D□= could not be true.

3. passage: "like a knife right through our heart, the oil pipeline project has cut our town in two! Politically those to its east and those to its west no longer see one another as citizens of the same town. The division has lead t mistrust, fear and open hostility. Folks, that's why I'm convinced that the pipeline project was a big mistake for our town." Assuming all the supporting statements are true, the speaker's conclusion

A□= could not be false.
B□= is probably true, but may be false.
C□= is probably false, but may be true.
D□= could not be true.

4. consider the claim: "Even Martin Luther King Jr. experienced self-doubt sometime or other," sa this claim relates to the following reasons: "Think about it, everyone who seeks fundamental changes in the social order must risk the lives and fortunes of many people. Martin Luther King Jr., acknowledged to be a compassionate reformer and advocate of non-violence, sought fundamental changes in the social order. And, nobody can put lives and fortunes at risk without,

at least on some occasions, experiencing self-doubt." Assuming all the statements made as part of the reason are true, the initial claim

A□= could not be false.
B□= is probably true, but may be false.
C□= is probably false, but may be true.
D□= could not be true.

5. "Not all the managers are ready for the conference," expresses the same idea as:

A□= All the managers are not ready for the conference.
B□= None of the managers are ready for the conference.
C□= someone ready for the conference is not a manager.
D□= some managers is not ready for the conference.

6. suppose "Only those seeking action and excitement should join the Navy" were true. Which of the following would express the same idea?

A□= You shouldn't seek action and excitement except by joining the Navy.
B□= You shouldn't join the Navy unless you seek action and excitement.
C□= If you seek action and excitement, you should join the Navy.
D□= If you join the Navy you should seek action and excitement.

7. Suppose a biologist lecturing about household pets said, "The dog offers several temperaments." Which would be the best interpretation of this claim?

A□= There is a dog which has more than one temperament.
B□= All dogs have several temperaments.
C□= Not every dog has the same temperament.
D□= There is a thing that has more than one temperament and it is a dog.
E□= All of the above mean the same thing.

8. "Mewyerkers make trouble," means the same thing as:

A□= People don't make trouble unless they are Mewyerkers.
B□= If anyone is a Mewyerker, then that person makes trouble.
C□= If anyone makes trouble, then that person is a Mewyerker.
D□= There is at least one person who is a Mewyerker who makes trouble.
E□= All the above mean the same thing.

9. Which of the following is roughly equivalent to saying, "It is not true that if Greene repaired the car then Andrews repaired the boat."

A☐= Greene repaired the car, yet Andrews did not repair the boat.
B☐= Greene did not repaired the car unless Andrews repaired the boat.
C☐= Either Greene repaired the car or Andrews repaired the boat.
D☐= if Andrews didn't repair the boat, Greene didn't repair the car.
E☐= None of the above is even roughly equivalent.

10. Consider this passage: "(1) In most industrialized countries adolescents do not join the work force until they are over twenty.(2) Indeed, some sociologists argue that a country's economic sophistication can be measured in terms of average age of entry to the work force. (3) Psychological studies suggest that various adolescent anxieties are far more evident in industrialized countries. (4) However, it would be a mistake to think that adolescents who work are less likely to find some joy in their labor." The above passage is best described as:

A☐= An attempt to show that sentence (1) is true.
B☐= An attempt to show that sentence (2) is true.
C☐= An attempt to show that sentence (3) is true.
D☐= An attempt to show that sentence (4) is true.
E☐= None of the above because no attempt at proof is made.

For Questions 11 and 12 use this passage: "(1) To judge if an action is right or wrong we must apply ethical principles no matter what consequences or results might actually follow. (2) Right actions are those performed with the intention of being just, telling the truth, and respecting the rights of others; wrong actions are those performed knowing one is violating these principles. (3) one can imagine a situation in which telling the truth is would actually lead to great harm for our nation. For example, (4) suppose you know that a candidate for president was guilty of a sexual indiscretion many years ago. (5) Suppose you know this candidate, if elected, would surely solve our foreign and domestic problems, restore our national pride, and go down in history as our greatest president. (6) But you also know public awareness of this past sexual indiscretion surely will mean the end of any chance this candidate has to be elected president. (7) Yet, when asked detailed questions by the media about this candidate's sexual history, you cannot avoid answering. (8) Telling the truth demands that you reveal the candidate's past sexual indiscretion. (9) So, telling the truth can be the right thing to do even if it leads to great harm for our entire nation."

11. which sentence in the passage above is the main conclusion or claim?

A☐= (1). B☐= (2). C☐= (3). D☐= (8). E☐= (9).

12. Sentence (2) in the passage above is best described as

A☐= an intermediate claim linking sentence (1) to (3).
B☐= an immoral claim which is logically irrelevant.
C☐= a reason in support of sentence (1).
D☐= the main conclusion or claim of the passage.
E☐= an explanation or clarification of sentence (1).

13. Many new and very specialized departments have been created recently within the corporation. This proves that the corporation is very interested in more sophisticated approaches to reaching the marketplace." This passage is best described as missing the unstated

A☐= conclusion, "Management wanted new approaches to reaching the market place."
B☐= conclusion, "Corporations exist primarily, if not exclusively, to serve the interests of their owners."
C☐= conclusion, "The corporation will soon do a better job of reaching the marketplace."
D☐= premise, "The corporation was failing to reach the marketplace before these new departments were developed."
E☐= premise, "These new departments are working on sophisticated, new approaches to reaching the marketplace."

14. Consider these statements: "Julius Caesar was Emperor of Rome in the first century BC. Every Roman emperor drank wine and did so using exclusively pewter pitchers and goblets. Whoever uses pewter, even once, has lead poisoning. Lead poisoning always manifests itself through insanity." Which of the following must be true if all of the above are true?

A☐= Lead poisoning was common among the citizens of the Roman Empire.
B☐= Exclusive use of pewter was a privilege reserved for Roman Empire.
C☐= Whatever else, Julius Caesar was certainly insane.
D☐= Those who suffer from insanity used pewter at least once.

14'. Do NOT answer this question.

A☐ B☐ C☐ D☐ E☐

15. Consider these statements true: "Stylish dressers are neither flashy nor dull. If someone is not flashy, then such a person is tasteful." Which of the following must be true, if both of the above are true?

A☐= If someone is a stylish dresser, that person is dull but tasteful."

B☐= No tasteful dressers are dull.
C☐= Stylish dressers are neither tasteful nor dull.
D☐= Every stylish dresser is tasteful and not dull.
E☐= None of the above.

16. Consider these statements true: "If David envies anyone, he envies Ann. There are many whom Ann does not envy, and David is one of them. But in today's world , everyone envies somebody." Which of the following must be true, if all of the above are true?

A☐= Somebody envies everyone.
B☐= David envies Ann.
C☐= Ann envies nobody.
D☐= None of the above.

Questions 17 and 18 are based on the following fictional situation: the city of Dallas has exactly seven districts—1, 2, 3, 4, 5, 6, and 7. The mayor must name exactly five people, each from a different district, to serve on the City Council. Any combination of five people will do, except that if someone from district 1 is named, no one from district 5 can be named. But, if someone from 3 is named, someone from 5 must be named. And, if anyone from district 2 is named, the mayor must then name a person from district 6 to serve as well.

17. Here are five possible combinations of people the mayor of Dallas might name to serve on the City Council. Which is the only combination that meets all the conditions?

A☐= 1, 2, 3, 6, 7.
B☐= 1, 4, ,5 ,6 ,7.
C☐= 2, 3, 4 ,6, 7.
D☐= 2, 3, 4, 5, 6.
E☐= 1, 2, 4, 5, 6.

18. Assume the mayor decides not to name anyone from district number 7. In that case, which other district must be excluded from representation on the City Council.

A☐= 1 B☐= 2 C☐= 3 D☐= 4 E☐= 5

19. Consider the "goladern" relationship. It is defined as follows: "Only humans are goladerns. But not every member of the human species has goladerns. Nobody can be a goladern to themselves, but today every human is someone's goladern. If someone is your goladern, then all that person's goladerns are your goladerns too. If someone is your goladern, then you cannot be that person's goladern. Assume the first two humans, the long ago deceased ancestors of our species, were named Sara and William." Given this meaning of "goladern" we can say for sure

A☐= The train is late, Marvin is hungry and Kathy is irritable.
B☐= If Kathy is hungry but Marvin is not irritable, the train is not late.
C☐= If Marvin is irritable or Kathy is hungry, the train is late.
D☐= If the train is not late, Marvin and Kathy are neither irritable nor hungry.
E☐= If Kathy and Marvin are hungry or irritable, the train is late.

23. Working on a marketing problem, the account executive argued, "Proposal l is better than proposal X. But, proposal Y is better that proposal L! Yet, proposal M is better than proposal Y. So, proposal Y is better than proposal J." Which information must be added to the account executive's argument to require that the conclusion be true, assuming all the premises are true?

A☐= Proposal J is worse than proposal M.
B☐= Proposal J is worse than Proposal L.
C☐= Proposal X is worse than proposal J.
D☐= Proposal L is worse than proposal J.

For Questions 24 and 25 use this fictitious case: "Research at fifteen public universities showed that graduating seniors who majored in the humanities averages 53 on a standardized test of general career preparedness. In the same study, graduating seniors who majored in the sciences averaged 55, those who majored in engineering or business scored 54. A second study, conducted at ten private universities, showed that graduating seniors who majored in business, engineering or sciences averaged 56; those who majored in the humanities averaged 54 on the same career preparedness test. A third study of a select group of young adults who had gone directly into full time jobs after high school and did not attend college. Matched to the earlier groups by age and high school achievement, these were good students whose financial situations simply made college impossible. Their average score on the same test was 32. The difference between 32 and the other mean scores was found to be statistically significant at the .05 level of confidence."

24. Initially, the most plausible scientific hypothesis regarding these data is

A☐= graduating from college is correlated with general career preparedness.
B☐= there should be financial aid for good students in need so they can attend college.
C☐= going to college is not related to being generally prepared to enter a career.
D☐= more testing is needed before a plausible hypothesis can be formulated.
E☐= a person who scores 60 or higher is generally prepared to enter a career.

25. To scientifically disconfirm choice **C** in question 24, one would have to

A☐= find a college graduate who is not generally prepared to enter a career.

C☐= Sara or William is each their own goladern.
D☐= Someone is neither Sara's or William's goladern.
E☐= None of the above because this concept does not make sense.

For Questions 11 and 12 use this fictitious case: "in a scientific study of college women who smoked one or more packs of cigarettes a day for at least two years, 85 % of the women who quit smoking showed a 15 % improvement in lung capacity within 45 days of quitting. That this improvement could have happened randomly or by chance was ruled out experimentally with high levels of confidence."

20. if true, these findings would confirm that

A☐= Smoking causes decreased lung capacity.
B☐= Smoking restrictions should be enacted on college campuses.
C☐= Diet is not a factor in the relationship between smoking and lung capacity.
D☐= The researchers had a vested interest in stopping smoking.
E☐= Smoking is statistically correlated with decreased lung capacity in college women.

21. if the information in this case were true, which of the following hypotheses would <u>not</u> have to be ruled out in order to confirm the claim that for about 85 out of 100 adults who smoke one or more packs of cigarettes a day for at least two years, a 15 % improvement in lung capacity can be obtained within 45 days of quitting smoking?

A☐= Improvement in lung capacity is limited to females, but improvement is lung capacity will not be evident in males who quit smoking.
B☐= Since smokers under-report the amount they really smoke, the actual relationship between quitting and lung capacity improvement is greater than indicated.
C☐= Since the women studied were predominantly Hispanic or Asian, these findings do not apply to the adult population of the United States in general.
D☐= Since college officials failed to keep this research confidential, the college women and the scientists involved knew the purpose of the study.
E☐= In college women, changes in lung capacity result from other factors, such as changes in physical fitness, health, blood pressure, and fatigue level.

22. Assume that whenever the train is late, Marvin and Kathy are hungry and irritable. Given that assumption, which of the following <u>must</u> be true?

D□= do nothing. There is no way to scientifically disconfirm that hypothesis.

26. "There seem to be two popular arguments in favour of the death penalty. One is that the cold fear of being put to death will deter others from committing the same terrible crimes. The second is that the death penalty appears more economical than the alternative, which is life in prison. But every scientific study conducted so far shows that the economic realities strongly favour life imprisonment. That people in general think the death penalty saves money doesn't change the economic facts! So, the death penalty should be abolished." The speaker's reasoning is best evaluated as

A□= poor. It did not show the relevance public opinion.
B□= poor. It did not address the argument about deterring others from crime.
C□= good. It showed the death penalty probably should be abolished.
D□= good. But it is factually mistaken about abolishing the death penalty.

27. "the median selling price of single family homes fell sharply throughout 1989 and continued down during the recession that began in 1991 and lasted into 1992. During the same period of time, interest rates and real estate prices fell sharply. These facts establish that single family homes are real estate." The best evaluation of the speaker's reasoning is

A□= good thinking, but not all the facts are stated accurately.
B□= good thinking, because single family homes are considered real estate.
C□= bad thinking. One can draw no conclusions about the prices of single family homes given facts about real estate and interest rates.
D□= bad thinking. The selling price of new cars went down during that same time, but does not prove that a single family home is a new car.

28. "As the long shadows of Saturday slowly purpled the late afternoon sky, little Carol Ann bicycled back and forth on the sidewalk in front of her house. Soon it would be night and her slumber party would start. Carol Ann had invited all her little friends. They would eat pizza, watch funny movies, and stay up very late telling scary stories. Carol Ann could hardly wait. She wished the sun would go away faster, pass beyond the hills, and let night come. She decided to peddle her bike as hard as she could to drive the sun away. She peddled and peddled. And the harder she peddled, the darker it became. Yes, night was coming! The slumber party was coming! Carol Ann peddled harder and harder. And when it was finally dark she was very tired. But she was very happy as well. Carol Ann thought about what had happened and decided she could make any boring old afternoon turn into a happy night, if she really worked hard at it." The best evaluation of Carol Ann's reasoning is

A speech writer working for a white supremacist group claimed that white Americans were "genetically superior to Blacks, Hispanics, Asians, Iranians and all other mongrel races in terms of native human intelligence." To support this claim, the speech writer quoted a study which compared two groups of tenth graders. Each group was given the same exam covering European geography. The exam focused on European rivers, mountain ranges, countries, capital cities, agriculture, industry, religion, music and languages. Group A was 35 tenth graders, 34 of who, were whites with Anglo-European family names. Group A students attended a private college prep school in wealthy Orange County, California. That school requires ninth graders to take a year of European history. Group B was 40 tenth graders, all but 4 of whom were Hispanic, Black, Asian or middle Eastern. Group B students attended a public high school in a violent, gang infested ghetto community of south central Los Angeles County. Ninth graders at the public high school take a year of world history. The writer pointed out that Group A did significantly better on the geography test that Group B.

31. Suppose a political scientist objected, saying, "The inference from these data to the claim being made is faulty because this researcher overlooks the guarantees in the US Constitution regarding equal educational opportunity." If true, is this political scientist's reason good or not, and why?

A☐= Good reason. A violation of key rights makes a study unacceptable.
B☐= Good reason. Equal educational opportunity is a vague concept.
C☐= Bad reason. These rights were respected in the original research.
D☐= Bad reason. These rights are irrelevant to this research.

32. Suppose a developmental psychologist argues, "The inference from these data to the claim being made is faulty because the study does not take into account the impact of environment on intelligence." If true, would this psychologist's reason be a good or a bad reason, and why?

A☐= Bad reason. Nobody had proven that environment can affect learning geography.
B☐= Bad reason. It is very difficult to measure the effects of environment on intelligence.
C☐= Good reason. This factor must be taken into account.
D☐= Good reason. Environment, not genetics is the major factor determining intelligence.

33. Suppose a female social worker objected, "You can't expect group B children to be as intelligent. After all, they come from a background of poverty, crime and broken families." If true, would this social worker's reason be a good or bad reason, and why?

A☐= Good reason. Poor neighbourhoods mean poor schools, poor schools mean poor teachers, poor teachers mean poor students, poor students mean poor test scores.
B☐= Bad reason. Regardless of the socioeconomic conditions, intelligence depends on the quality of the school you attend.

A☐= good. What evidence does she have if she had worked so hard, it would not have happened?
B☐= good. Carol Ann is only a child.
C☐= poor. The sun goes around the earth with or without her puddling hard.
D☐= poor. That it happened after she peddled so hard doesn't mean it happened because she peddled so hard.

29. The speaker said, "Journalists should be guided by the public's right to know, which implies a full and accurate presentation of all significant facts. At the same time, as patriots, /journalists should also be guided by the interests of national security, which require that governmental security be maintained. Nobody can say for certain which value is more important— the American public's right to know or national security. This can create some agonizing dilemmas. For example, a journalist may discover the exact hour and location of a top secret military attack ordered by our own government. The American public has the right to know what its government is doing, particularly in a matter as serious as a military attack. But publishing the facts before the attack might aid the enemy and lead to a costly military defeat for our country." The best evaluation of the speaker's reasoning is

A☐= poor thinking, because the law says national security is more important.
B☐= poor thinking, because in practice journalists do choose one value over another.
C☐= good thinking, because the public's right to the truth cannot be compromised.
D☐= good thinking, because in the abstract these important values conflict.

30. "A complete set of tableware contains at least four dinner plates, four soup bowls, four dessert dishes, four coffee cups, and four saucers. For our purposes we will say these twenty pieces are the only pieces in a 'basic set.' There are many other pieces in a complete set. Manufacturers often include small salad bowls, large serving platters, salt and pepper shakers, a creamer and a sugar bowl, and even a butter dish. For now call these additional pieces the 'accessory set.' Now, suppose you receive a complete set of tableware as a gift. So, from what we know now, we can conclude that among the pieces in the basic set there are precisely four each of dinner plates, soup bowls, dessert dishes, coffee cups, and saucers." The author's way of demonstrating this conclusion is best evaluated as

A☐= poor. It proves nothing as in "The ocean is water because it is water."
B☐= poor. It fails to consider the pieces in the accessory set.
C☐= good. The author enumerates the various pieces in a complete set of tableware.
D☐= good. The conclusion is an accurate restatement of the given facts.

For questions 31, 32, and 34 focus on the faulty inference in the following fictional case:

C□= Bad reason. Poverty, wealth and family circumstances do not make a person more or less intelligent.
D□= Regardless of race, children from these kinds of backgrounds are less intelligent than children from wealthy backgrounds.

34. Suppose a militant African-American student teacher angrily objected, "What do you expect! The rich kids took a course in European history, but the poor kids didn't. Sure, they're going to know more about Europe." If true, would this student teacher's reason be a good reason or a bad reason, and why?

A□= Bad reason. She is only a student teacher and probably does not have the research or teaching experience to support her claims.
B□= Good reason. Knowledge of facts does not measure intelligence.
C□= Good reason. The differences in what they were taught in the ninth grade would tend to give Group A an advantage over Group B on that geography exam.
D□= Bad reason. She's obviously responding defensively because she is Black and feels insulted by the conclusions the speech writer drew.

Appendix B: Teacher Autonomy Scale (TAS)

Instructions: Please fill in the blank or mark your choice as appropriate.

Gender:……. Years of teaching experience:…….. Age:……. Context:……..

	Definitely True	More or Less True	More or Less False	Definitely False
1. I am free to be creative in my teaching approach.				
2. The selection of student-learning activities in my class is under my control.				
3. Standards of behavior in my classroom are set primarily by myself.				
4. My job does not allow for much discretion on my part.				
5. In my teaching, I use my own guidelines and procedures.				
6. I have little say over the content and skills that are selected for teaching.				
7. The scheduling of use of time in my classroom is under my control.				
8. My teaching focuses on those goals and objectives I select myself.				
9. I seldom use alternative procedures in my teaching.				
10. I follow my own guidelines on instruction.				
11. I have only limited latitude in how major problems are resolved.				