



## Teaching for Successful Intelligence (The impact of Professional Program on English Language Teachers' Style)

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### ABSTRACT

This study aims to modify the score of English teachers' abilities in teaching successful intelligence in Jeddah and discover the differences in teaching for successful intelligence in light of some demographical variables such as: (teachers' years of experience; gender; teaching classes; and types of educational study). A quantitative approach was implemented using the questionnaire "Teaching for Successful Intelligence" by Palos and Maricutoiu (2013). The participants are 123 English teachers working in governmental schools in Jeddah.

The findings indicate that the total degree of the teachers' preferences for teaching styles relevant to stimulating the students' successful intelligence abilities is an acceptable degree ( $M=3.74$ ). Creative teaching style has the highest degree ( $M=3.85$ ), and the analytical teaching style has the lowest degree ( $M=3.64$ ). No statically differences were found in TSI according to years of experience, but there are statically differences in TSI according to gender in favor of females in all dimensions and in the total degree except CT the differences come in favor of males. Based on classes per week of teaching, there are no statically differences in some of TSI except RT in favor of teachers who teach less than 10 classes and AT comes in favor of teachers who teach more than 20 classes per week. Also, there are no statically differences in TCI according to their educational study except in RT there is a statistical difference between groups in favor of teachers whose educational study was sequential study. Researchers recommend taking care of the pre-service phase and in-service teachers' training as well should inserting the new competencies of teachers in the light of the 2030 Saudi vision.

**Keywords:** Teaching EFL; Successful Intelligence; creative; reproductive; analytical; ability; teaching style.



## 1. Introduction:

While the historical importance of IQ as currently understood should not be discarded, a more important concept needs to be developed and taught in Arabian educational systems. Sternberg writes “IQ tests: Measuring IQ not Intelligence. We need to address the question, Is intelligence one thing or many? It is many (Sternberg, 1988: p. 72).”

Since a high IQ does not always correlate with success in life, it does not seem appropriate that all of the measures to enter any field requiring advanced degrees need to be IQ-based. Nor does it seem appropriate that most teaching methods favor those who can remember and pass a multiple-choice test over those who are good at the tasks required by a given profession. Academicians need to be more concerned with successful intelligence than traditional IQ for even the most respected IQ test "fails to do justice to their creators' conceptions of the nature of intelligence (Sternberg, 2002).

In the field of teaching EFL, especially in Saudi Arabia's public schools, English is taught as a subject, not as a means of communication. This makes the lessons teacher-centered, and the students passive receivers of information. Learning by rote and lectures are among the methods applied in most classrooms because English teachers in Saudi Arabia are not well-trained (Alharbi, 2015). Methods such as grammar translation and the use of Arabic as a language of instruction are still applied in public schools to save time. Curricula and textbooks' contents are based on unrelated topics and deductive activities (Assalahi, 2013). Because of traditional archaically teaching methods, communication, and high thinking skills are neglected in the classroom.

There is an urgent need to apply such theories to fill the gap between the content learned by students and how they apply this content in daily life. One theory that advances a multidimensional view of intelligence is the successful intelligence theory. Successful intelligence theory posits that intelligent behavior arises from a balance between analytical, creative, and practical abilities and that these abilities function collectively to allow individuals to achieve success within their sociocultural contexts (Sternberg, 2004). Sofi (2015) suggests that Saudi Arabian teachers be equipped with contemporary training to apply better and more communicative approaches in their classes.

This research synthesizes rational support for teaching successful intelligence as a philosophy of teaching that facilitates human development and self-actualization for all students. The major purpose is to contribute to enhancing school trends and teachers' attitudes toward teaching for creativity utilizing a broad conception of creativity, and internalizing positive beliefs about student capability for success.



## 2. Literature review

The purpose of this literature review is to clarify the concept of teaching for successful intelligence. Within the scope of such a paper, I have elected to present the literature concentrating on the theory of successful intelligence and teaching styles for successful intelligence.

### 2.1 Theory of Successful Intelligence:

No one approach to studying intelligence is apt to be “complete”. A continuing challenge for the future will be the integration of results from various paradigms of research so that our understanding of intelligence will be trans-paradigmatic rather than specific to the research approach that it happens to use (Sternberg, 1985, p.110).” Some of the ideas were based on science, some on logic, some on experience, and some on supposition, but regardless, the important thing is what we do with the knowledge. It's not IQ or knowledge; it's the application of IQ and knowledge that will determine success in life.

Service (2011) indicates that intelligence can be studied in three ways; (a) The adaptation of an organism to its environment. (b) The complexity of the system of mental structures required by such an adaptation. (c) The individual know-how, that is the ability of an individual to learn and use those complex structures appropriately, according to the circumstances (Gardener,2006).”

In the same context, Sternberg defines Successful intelligence as the ability to succeed in life according to one's definition of success, within one's sociocultural context, by capitalizing on one's strengths and correcting or compensating for one's weaknesses; to adapt to, shape, and select environments; through a combination of analytical, creative, and practical abilities (Steinberg,2003).

Sternberg believes that intelligence has less to do with success in the classroom and more to do with success in the real world. He refers to the ability to achieve success in life as “successful intelligence.” He believes that people have three types of intelligence and that “successfully intelligent” people learn to balance the three types of intelligence effectively. Sternberg's three types of intelligence called the Triarchic Theory, are:

- Analytical, or componential, intelligence. This type of intelligence allows a person to process information effectively and think abstractly. Most tests measure this type of intelligence.
- Creative, or experiential, intelligence. This type of intelligence allows a person to come up with new ideas. People high in creative intelligence can find connections between concepts that seem different and distinct.



- Practical, or contextual, intelligence. This type of intelligence allows a person to find practical solutions to real problems. People with this type of intelligence are often considered “street smart.”

## 2.2 Teaching for Successful Intelligence:

Teaching for successful intelligence involves a way of looking at the teaching-learning process that broadens the kinds of activities and assessments teachers traditionally do. Many good teachers “teach for successful intelligence” spontaneously. But, for one reason or another, most do not. Teaching for successful intelligence involves, at minimum, using a set of prompts that encourages students to engage in memory learning as well as analytical, creative, and practical learning (Kaufman & Grigorenko, 2009)

Traditional teaching aims at forming and developing a knowledge base, focusing on students' memorizing and analytical skills. However, approaching teaching from the perspective of successful intelligence the aim is to extend this basis, developing a person's expertise by (a) harnessing their creative and practical abilities, along with the analytical and memorizing ones, allowing them to harness their intellectual qualities; and (b) by offering multiple ways of assimilating information (using analytical, creative and practical activities), thus enabling retention of the study material (Sternberg, 2003). From this perspective, the teacher's role is not only to provide information for students to assimilate and then reproduce in the process of evaluation, but also to stimulate students in generating and assessing ideas, and in the effort to make these ideas work in practice, at the same time convincing others of their value (Sternberg, 2002).

According to Sternberg and Grigorenko (2004), the students who experienced teaching styles stimulating the four types of abilities (reproductive, analytical, creative, and practical) obtained better results at the end of the year, as compared to students who experienced traditional teaching (Sternberg, 2008).

Sternberg (2002) describes at length four types of teaching that result from catering to the four types of abilities. Teaching in a manner that stimulates the students' reproductive abilities represents a foundation without which achieving the other types of teaching would not be possible because (a) people cannot think critically about what they know if they do not hold that basic knowledge; (b) people cannot explore ideas and find new solutions if they do not know what already exists, and (c) people cannot apply in practice and find a use for their knowledge if they do not possess it. Teaching based on memorizing implies stimulating and evaluating one's memory (a) by asking students to reproduce and update certain information, (b) by recognizing what has already been learned, (c) by verifying information, and (d) by answering questions such as who, what, when, how, why.



Teaching in a way that leads to the development of student's analytical abilities implies encouraging them (a) to analyze the information provided, (b) to explain the way things happen or function, (c) to draw comparisons between situations or problems, estimate the value of information, analyze alternatives, and (d) "to break up the whole into pieces". When one aims at stimulating creative abilities, the focus of the teaching activity is placed on (a) enabling learning using word or role-playing games, (b) inventing and exploring new ways to solve various situations or problems, (c) imagining scenarios where one may use the acquired knowledge or find new uses for it, (d) doing things differently from the majority, sometimes even "defying" the logic of things (Palos & Maricutoiu,2013).

All information assimilated in class has value when it is contextualized in practical activities. In teaching to stimulate practical abilities students must be encouraged (a) to apply in their everyday activity the information received in class, (b) to verify theoretical strategies, and (c) to experience practically what they know in theory. The teacher can use practical situations as a starting or closing point and can give students the possibility to control abstract concepts (Sternberg,2003).

### 2.3 Principles of teaching and assessing for successful intelligence:

"Teaching for successful intelligence" provides a series of techniques for reaching as many students as possible (Sternberg & Grigorenko, 2002). There are seven main principles of teaching for successful intelligence (Sternberg, 2003). These principles must be adhered to in all instruction and assessment:

- The goal of instruction is the creation of expertise through a well and flexibly organized, easily retrievable, knowledge base.
- Instruction should involve teaching for analytical, creative, and practical thinking, as well as for memory learning.
- Assessment should also involve analytical, creative, and practical, as well as memory components.
- Instruction and assessment should enable students to identify and capitalize on their strengths.
- Instruction and assessment should enable students to identify, correct, and, as necessary, compensate for weaknesses.
- Instruction should help students (a) adapt to the environment (change themselves to suit the environment better), (b) shape the environment (change the environment to suit them better), and (c) select new environments.
- Good instruction and assessment integrate, rather than separate, all of the elements of intelligence.

All students receive all kinds of instruction (analytical, creative, and practical). Such instruction helps students capitalize on strengths and correct or compensate for weaknesses (Sternberg & Grigorenko,2002).



## 2.4 Does Teaching for Successful Intelligence Work?

Teachers want indeed, some demand some level of assurance that, if they take the trouble to use a method of teaching, it really will work. Some studies show that teaching for successful intelligence does work. The common element of all these studies is the demonstration that when students are taught successful intelligence, they are better able to capitalize on their strengths and correct or compensate for their weaknesses so that they learn at higher levels.

In a first study (Sternberg, Torff, & Grigorenko, 1998), researchers taught third-grade students social studies and eighth-grade science in one of three ways. Either they emphasized just memory learning, primarily analytical (critical) thinking, or teaching for successful intelligence (memory, analytical, creative, and practical learning). All students received the same quantity of instruction for the same period, and all students received the same assessments for memory learning as well as for analytical, creative, and practical learning. They found that students who were taught for successful intelligence outperformed students who were taught either for memory or critical thinking, pretty much regardless of grade level, subject matter, or type of assessment.

In a second study (Sternberg, Grigorenko, Ferrari, & Clinkenbeard, 1999), for example, researchers identified high school children for their patterns of analytical, creative, and practical abilities. They then taught these children a rigorous psychology course that either fit their pattern of abilities particularly well or did not do so. For example, a highly creative child might receive an instructional program that emphasizes creative learning and thinking (good fit), or one that emphasizes memory learning (not so good fit). They found that children who were taught in a way that, at least some of the time, enabled them to capitalize on their strengths, outperformed students who were not so taught.

A third study conducted by (Sternberg, Javran, Briny, Naples, Stemler, Newman, Otterbach, Parish, Randi & Griogrienco, 2014) addressed whether prior successes with educational interventions grounded in the theory of successful intelligence could be replicated on a larger scale as the primary basis for instruction in language arts, mathematics, and science. A total of 7,702 4th-grade students in the United States participated in the program. Students were assigned, by classroom, to receive units of instruction that were based either upon the theory of successful intelligence or upon teaching as usual (weak control), memory instruction (strong control), or critical-thinking instruction (strong control). The amount of instruction was the same across groups. In the 23 comparisons across 10 content units in 3 academic domains, there were students in the SI instructional groups generally performed statistically better than students in other conditions. There were instances where the different control conditions outperformed the SI students.



Fourth study (Sternberg, Grigorenko & Jarvin, &,2015), the researchers helped primarily inner-city urban students at the middle and high school levels develop their reading skills. At the middle school level, reading was taught as a separate subject-matter area, whereas at the high school level, reading was infused into other subject-matter areas, such as English, science, foreign language, and history instruction. Students were taught either for successful intelligence or in a standard way that emphasized memory-based instruction. The students who were taught for successful intelligence outperformed the students taught more conventionally on all assessments, whether for vocabulary or reading comprehension, and whether emphasizing memory-based, analytical, creative, or practical thinking.

### 3. Research Aim and Key Questions

The current study aims to measure the effect of professional programs based on the theory of successful intelligence to enhance English teachers' style. The following research questions guide the study:

- Are there any differences in English teachers' abilities for teaching Successful Intelligence according to the effect of professional programs based on the theory of teaching for successful intelligence?

### 4. Hypothesis of the Study

There is a statistically significant difference at the level of significance (0.05) between the mean scores of the experimental group teacher in the pre-test and post-tests of teaching style after a successful intelligence-based teaching professional program in favor of the post-test.

### 5. Methodology

To answer the research questions, the quasi-experimental study method (one-group design) was implemented using the scale of teaching for successful intelligence.

#### 4-1 The Sample:

The strategy used in the current study is probability random sampling, in which every member of the population can participate. Thus, probability sampling allows a random convenience sample to take part in the study (Trochim, 2005).

The context was the English teachers in Asser schools. A total of 63 completed electronic questionnaires were calculated and checked after the deadline for submission. The following table describes the distribution of the sample per demographic variables:

**Table (1): Sample description**

Demographic Variables	Groups	Numbers	Percent
Experience years	Less than 5 years	29	23.6%
	Between 5 – 10 years	45	36.6%
	More than 10 years	49	39.8%
	Total	123	100%
Gender	Male	38	30.9%
	Female	85	69.1%
	Total	123	100%
Classes per week	Less than 10 classes	13	10.6%
	Between 10-20 classes	83	67.5%
	More than 20 classes	27	22.0%
	Total	123	100%
Educational study	Integrative study	93	75.6%
	Sequential study	30	24.4%
	Total	123	100%

#### 4-2 The instruments:

The data used for this study were collected by using questioner of "Teaching for Successful Intelligence" by Romana Palos and Laurentiu Maricutoiu (2013). This instrument allows the identification of the teachers' preferences for teaching styles relevant to stimulating the students' creative, analytical, practical, and reproductive abilities. it consists of (20) items divided per the previous thinking styles (5 items for each).

##### 4-2-1 Validity and Reliability by Palos and Maricutoiu (2013):

The first version of the questionnaire was analyzed by a group of 15 university teachers who are familiar with the content of the theory of successful intelligence. These teachers provided suggestions for reformulating some items. After revising the items, the TSI-Q was completed by 362 university and school teachers.

Content Validity of TSI-Q Items Palos and Maricutoiu (2013) conducted a content validity study on the TSI-Q items, using the recommendations provided by McGartland-Rubio, Berg-Weger, Tebb, Lee and Rauch (2003). All 32 items were evaluated by fourteen experts (9 with a Ph.D. in Psychology and 5 Ph.D. Psychology students). Experts received operational definitions for each teaching style, accompanied by a list of items for each scale. Using a 4-point Likert scale, each expert had to evaluate each item based on two criteria: representativeness of the content domain and clarity of expression. All 32 items obtained average evaluations above 3 on both criteria, which indicates that the TSI-Q has an acceptable content validity.

In its final version, TSI-Q is made up of 20 items that assess the four teaching styles relevant to successful intelligence: reproductive, analytical, creative, and practical (Appendix 1: TSI-Q). The TSI-Q scales have a satisfactory internal consistency (Cronbach's alpha above 0.78), but correlations between the scales are high (up to





.65). Despite these strong associations, the TSI-Q scales show discriminative validity, indicating the fact that they assess different teaching styles.

#### 4-2-1 Validity and reliability in the current study:

**Validity:** To make sure that TSI-Q is the suitable instrument to realize the study's aims, I conduct TSI-Q by internal consistency validity. The following table shows Personal correlations between items and their teaching styles that belong to and Personal correlations between teaching styles degrees and the total degree of TSI-Q:

**Table (1): internal consistency validity of TSI-Q:**

TS	N	PC	N	PC	N	PC	N	PC	N	PC	TSI=Q Total	PC
CT	1	0.77**	2	0.82**	3	0.75**	4	0.80**	5	0.75**		0.91**
RT	6	0.85**	7	0.77**	8	0.60**	9	0.77**	10	0.80**		0.89**
AT	11	0.83**	12	0.82**	13	0.66**	14	0.69**	15	0.63**		0.93**
PT	16	0.75**	17	0.44**	18	0.70**	19	0.76**	20	0.64**		0.84**

\*\*Significant ( $\alpha \leq 0.01$ )

(CT)Creative Teaching/ (RT)Reproductive teaching/ (AT)Analytical teaching/ (PT)Practical teaching

As shown in Table (1) there are strong correlations between TSI-Q items and the teaching styles that belong to them, also there is a strong correlation between teaching styles and TSI-Q total degree. The correlation values range between (0.44 – 0.85) for items and between (0.84 – 0.93) for dimensions and all are significant ( $\alpha \leq 0.01$ ). That indicates an acceptable degree of internal consistency validity.

**Reliability:** I tested TSI-Q reliability by using Cronbach's alpha and split shift (Guttman and Spearman-Brown) coefficient for all items. The following table shows the test results:

**Table (2): Reliability of TSI-Q**

TS	Items N	Cronbach's alpha	Split Shift	
			Spearman-Brown	Guttman
CT	5	0.83	0.83	0.79
RT	5	0.82	0.75	0.77
AT	5	0.78	0.65	0.72
PT	5	0.75	0.68	0.72
<b>Total</b>	20	0.90	0.83	0.86

In Table (2) all the values of TSI-Q reliability indicated a good degree of reliability because they range between (0.65 -0.83) for dimensions and between (0.83 – 0.90) for the total degree.

## 5. Results:

**5-1** The results of descriptive static to answer the first question in the study “What is the degree of English teachers' abilities for teaching Successful Intelligence among English Teachers in Jeddah?” are shown in the following table:

**Table (3): The means and the standards deviation of teachers' responses on TSI-Q.**

TSI	M	SD	P
1 Creative Teaching (CT)	3.8472	.83532	76.94%
2 Reproductive teaching (RT)	3.7463	.81626	74.92%
3 Analytical teaching (AT)	3.6423	.80501	72.84%
4 Practical teaching (PT)	3.7415	.72416	74.83%
<b>Total</b>	3.7443	.71153	74.886%

The descriptive static results indicate that the total degree of TSI is an acceptable degree ( $M=3.74$ ). CT has the highest degree ( $M=3.85$ ), then RT ( $M=3.75$ ), and after that, PT ( $M=3.74$ ), and AT has the lowest degree ( $M=3.64$ ).

**5-2** The results of static tests related to the second question “Are there any differences in English teachers' abilities for teaching successful intelligence according to teachers' years of experience/gender/teaching classes/types of educational study?” are shown in the following tables:

**Table (4): The result of one-way ANOVA to test the differences in TSI-Q according to teachers' years of experience.**

TSI	Sum of Squares	DF	M	F	Sig.	
1 Creative Teaching	Between Groups	.551	2	.275	.476	.624
	Within Groups	29.499	51	.578		
	Total	30.050	53			
2 Reproductive teaching	Between Groups	2.247	2	1.123	1.765	.181
	Within Groups	32.459	51	.636		
	Total	34.706	53			
3 Analytical teaching	Between Groups	.902	2	.451	.740	.482
	Within Groups	31.066	51	.609		
	Total	31.968	53			
4 Practical teaching	Between Groups	2.109	2	1.054	2.171	.124
	Within Groups	24.766	51	.486		
	Total	26.875	53			
<b>Total</b>	Between Groups	1.169	2	.585	1.291	.284
	Within Groups	23.085	51	.453		
	Total	24.254	53			

Based on the data provided above, there are no static differences in TSI according to their years of experience ( $\alpha \geq 0.05$ ).

**Table (5): The independent samples t-test outcomes in TSI-Q according to their gender.**

TSI	Groups	Num	M	SD	DF	T	Sig
1 Creative Teaching	Male	38	3.2526	.97834	121	4.570	0.00
	Female	85	4.0259	.54054	47.399		



2	Reproductive teaching	Male	38	3.0895	.90964	121	5.403	0.00
		Female	85	3.9741	.65377	54.775		
3	Analytical teaching	Male	38	3.1842	.91638	121	3.912	0.00
		Female	85	3.8259	.63904	53.718		
3	Practical teaching	Male	38	3.4263	.78661	121	3.353	0.00
		Female	85	3.9035	.58114	55.797		
Total		Male	38	3.2382	.81725	121	4.828	0.00
		Female	85	3.9324	.51349	50.520		

According to the outcomes in Table 5, there are statically differences in TSI according to their gender ( $\alpha \leq 0.05$ ). The differences come in favor of females in all dimensions and the total degree of successful intelligence teaching EXCEPT creative teaching the differences come in favor of males.

**Table (6): The result of Kruskal-Wallis to test the differences in TSI-Q according to their classes per week.**

SI teaching	Groups	Num	Mean Rank	Chi-Square	Sig.
1 Creative Teaching	Less than 10 classes	13	60.25	4.763	0.092
	Between 10-20 classes	83	58.15		
	More than 20 classes	27	75.74		
2 Reproductive teaching	Less than 10 classes	13	79.94	6.910	0.032
	Between 10-20 classes	83	56.50		
	More than 20 classes	27	68.56		
3 Analytical teaching	Less than 10 classes	13	55.78	8.308	0.016
	Between 10-20 classes	83	57.66		
	More than 20 classes	27	80.22		
4 Practical teaching	Less than 10 classes	13	58.00	3.569	0.168
	Between 10-20 classes	83	59.16		
	More than 20 classes	27	73.88		
Total	Less than 10 classes	13	63.50	5.291	0.071
	Between 10-20 classes	83	57.41		
	More than 20 classes	27	76.08		

Based on the data provided above, there are no statically differences in some of the teachers' teaching styles for teaching successful intelligence according to their classes per week ( $\alpha \geq 0.05$ ) EXCEPT reproductive and analytical teaching styles. The differences in CT come in favor of teachers who teach less than 10 classes but AT comes in favor of teachers who teach more than 20 classes per week.



**Table (7): The independent samples t-test outcomes in TSI-Q according to their educational study.**

	SI teaching	Groups	Num	M	SD	DF	T	Sig
1	Creative Teaching	Integrative	93	3.7478	.72498	121	0.950	0.34
		Sequential	30	3.9032	.95341	42.300		
2	Reproductive teaching	Integrative	93	3.6109	.81866	121	2.061	0.04
		Sequential	30	3.9677	.87802	48.771		
3	Analytical teaching	Integrative	93	3.5609	.71790	121	1.409	0.16
		Sequential	30	3.8258	.96020	41.876		
3	Practical teaching	Integrative	93	3.7152	.56897	121	0.896	0.37
		Sequential	30	3.8774	.95174	37.481		
Total		Integrative	93	3.6587	.61656	121	1.366	0.18
		Sequential	30	3.8935	.88776	40.194		

Based on the result in table (7), there are no statically differences in teachers' teaching styles for teaching successful intelligence according to their educational study ( $\alpha \leq 0.05$ ). Except in RT, there is a statistical difference between groups in favor of teachers whose educational study was sequential ( $M=3.9677$ ).

## 6. Discussion:

The findings of this study clearly show that EFL teachers have an acceptable degree in self-reported questionnaires. In the light of new trends of the Saudi Ministry of Education to develop teachers' abilities through in-service programs according to the 2030 vision which demands different outcomes of abilities.

On the other hand, we can't say that the degree achieved a high level as vision required. In addition to the short history of a new direction, maybe that is because of different obstacles such as overcrowding classrooms; preservice teachers' training & teachers' ignorance of dealing with job stress.

## 7. Conclusion and Implications:

A limitation of the present study is that its results are based on instruments conducted in Saudi Arabia and thus may not be generalizable to other parts of the world. However, the findings may provide insights for future research on SWAT analysis on practical education programs to clarify the strengths and weaknesses of these programs in light of teaching for successful intelligence.

The results of this research have several potential implications relevant to policy and practice, especially for developing countries such as Saudi Arabia. Pre-service phase and In-service teachers' training as well should also insert the new competencies of teachers in the light of the 2030 Saudi vision.



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