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والثلاثون

استقصاء وعي المدرسين باستخدام نموذج (CLIL) في المدارس الثانوية العراقية في البصرة

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المستخلص:

يهدف هذا البحث دراسة وعي المدرسين بأهمية استخدام نموذج (CLIL) (التعلم المتكامل للمحتوى واللغة) في تدريب المواد العلمية داخل الصفوف الدراسية اليومية ولجمع البيانات تم اختبار (٥٢) مدرساً باستخدام استبيان لقياس مستوى ادائهم. تم تحليل البيانات باستخدام برنامج (SPSS) وفق معادلة فيشر لاستخراج المتوسطات المرجحة والنسب المئوية لكل فقرة وأشارت نتائج الدراسة الى ان معظم المدرسين غير واعين فعلياً باستخدام نموذج (CLIL) كمنهج تعليمي مهم في التدريس اليومي. رغم انهم يطبقون بعض المهارات دون قصد. ومن نتائج الدراسة يمكن الاستنتاج بأن استخدام نموذج (CLIL) يجب أن يؤخذ بعين الاعتبار نظراً لدوره الحيوي في تحسين عملية التعلم. ان دمج جميع العناصر في نموذج (CLIL) له تأثير كبير في تطوير كل من المحتوى (المادة العلمية) واللغة في ان واحد.

الكلمات المفتاحية: نهج (CLIL), كفاءة المدرسين, نموذج (CLIL), تطوير اللغة, المدرس, المحتوى.

Investigating Teachers 'Awareness of using CLIL in Iraqi Secondary schools in Basra

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Abstract

The goal of this study is to investigate teachers' awareness of the importance of using CLIL in teaching scientific subjects and to explore the extent of teachers' proficiency in skills of integrating language and content



in teaching scientific subjects in everyday classroom. To collect data, 52 teachers were tested using a questionnaire to assess the level of their performance. Data analysis was conducted by using SPSS software according to T-test formula. Fisher Equation has also been used to extract the weighted mean and the percentage weight for each item. The data were analysed descriptively and the findings of the study indicated that most teachers are really unaware of using CLIL as an important approach in everyday instructions although they conduct some of the skills or techniques. Based on the results of the study, it can be concluded that using CLIL approach should be taken into consideration for its vital role to improve learning process. Integrating all aspects in CLIL has significant influence to develop both the content (the subject matter) and the language simultaneously.

Key words: CLIL approach, CLIL model, content, language development, language proficiency, teachers' proficiency.

1.Introduction

CLIL method has publicized a great success round the world. It is gaining traction among schools and universities internationally. Content and language integrated learning (CLIL) is an educational approach that enhance concomitantly subject content and language proficiency. CLIL stimulates cognitive development, intercultural competence, interactive communication, improving language proficiency and elevating motivation, engagement and confidence. Actually, this is the core point of this approach which show a significant effect on the educational process. It works as an instructional method in which learners master the subject content through the second or (a foreign) language and stimulate learners to comprehend through using a foreign language.

1.1 Aims

- 1- To examine the extent to which Iraqi secondary school teachers in Basra integrate content and language (CLIL) when teaching scientific subjects.
- 2-To identify male teachers' proficiency level in applying CLIL (integrating language and content skills) for teaching scientific subjects in English.



3- To identify female teachers' proficiency in applying CLIL (integrating language and content skills) for teaching scientific subjects in English.

1.2 What is CLIL?

Content and Language Integrated Learning (CLIL) is a methodology to the foreign language learning that involves the use of a second or foreign language to learn the content. (Zarobe ,Jiménez & Catalán ,2009). Historically, this term was first created by David Marsh and Anne Maljers in (1994) as an approach for learning the content via the second language. A generally known definition of CLIL that it is ‘a dual- focused educational approach in which an educational language is used for the learning and teaching of both content and language’” (Coyle, Hood & Marsh,2010). CLIL is an innovative didactic approach for teaching which assimilate two features – linguistic and actual. CLIL is actually specific for the educational and specific methodological principles. Additionally, it is a tool which stimulate students to understand through using a foreign language. Therefore, it is difficult to overlook the fact that content and language integrated learning has become the trendy approach of bilingual education in the recent years (Sepesiova, 2015).

CLIL has developed an umbrella term which describe the content (subjects such as physics, chemistry, Geography ...etc.) through a medium of a foreign language by studying content- based subject. The work of CLIL is predicated on language acquisition rather than obligatory learning. Besides, language is seen in real life conditions in which learners can acquire the language. In CLIL approach, fluency is more substantial than accuracy and errors are tolerated and they are regarded as an ordinary part in the language learning process. Students will improve fluency in English through communication for different purposes (Hegazy, 2021).

There are two varieties of CLIL: the soft CLIL and hard CLIL; as for the hard CLIL means the main goal of the lesson is the content not the language. Whereas soft CLIL emphasizes the language and the content is subordinate. Briefly speaking, CLIL approach utilizes the language to convey the knowledge from a different (usually non-linguistic) topic. In order to develop an applicable CLIL plans or adjusting ones requires three core



competences: the competence in the target language, target subject and CLIL methodology (Sepesiova, 2015). Boys and Gallagher (2019) highlight that soft CLIL includes core emphasis on the content knowledge contrary to the hard CLIL approach in which students are taught mainly content-based information with a small and a significant number of linguistic abilities. Broadly speaking, in hard CLIL content teachers attempt to add language learning to the content they are teaching in order to give students more chances to use the language with each other. In soft CLIL, instructors can add more content to the language points they are teaching and more attention on the communicative situations. And depending on the course content and language ability, teachers can adjust their lessons to be suitable to their needs and the learning style of the students.

1.3 The Most Common CLIL Model

The most well-known model used to teach CLIL is the 4Cs Framework which is developed by Coyle et.al in the late 1990's. The 4C framework is regarded as the basic principle for lesson planning along with material planning. The model comprises of four main components (and its integrative nature “offers a sound theoretical and methodological foundation for planning CLIL lesson” (Perez & Ramiro, 2010). According to Coyle (2005) 4Cs characterizes:

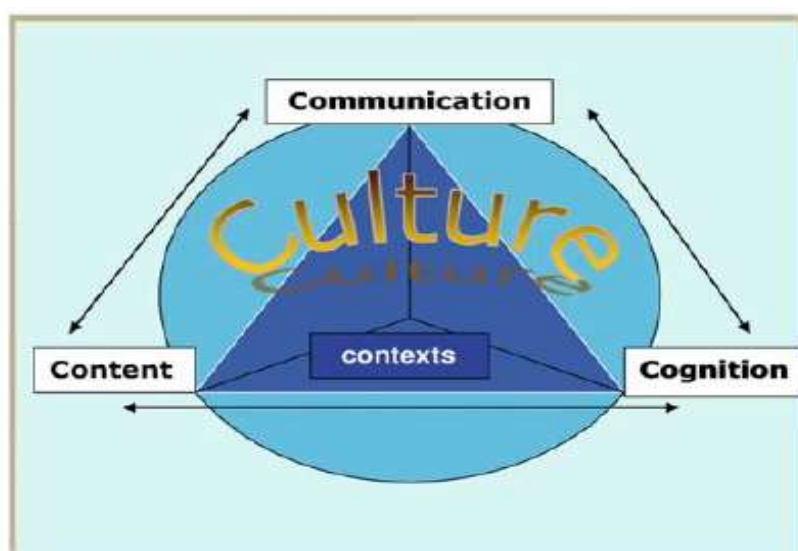
1-Content: refers to the subject with its themes and topics; as Coyle (2005) argues that it is the "acquisition of knowledge, skills and understanding" (Coyle, 2005). Gondová (2013) points out that content should be interrelated with everyday living. Accordingly, students have to learn facts not just from theoretical information but also from practice reinforced by theory. She further proposes K-W-H-L question technique? What do you know about it? What do you want to learn? How do you want to learn it? What have you learnt?

2-Communication: Language learning is assisted by communication however language is highlighted as an effective way of communication and Accuracy does not interfere with fluency (Coyle, 2005). The students should be at the core of the learning process which depends on student- student, student- group, and group- group communication. In order to have such a



situation, teachers have to provide an appropriate scaffolding through academic vocabulary, language structures and interactive activities.

3- Cognition: in CLIL cognition refers to the mental processes and thinking skills which promote higher order, develop critical analysis, problem-solving. This in fact supports students' personal ways of understanding. Briefly, cognition concentrates on assisting students to think thoroughly about subject content and improving their language skills (Coyle, 2005).



The 4Cs framework for CLIL (Coyle, 2005).

Figure (1) The 4Cs Framework for Coyle 2005 Reprinted from Coyle, D. (2008). CLIL – a pedagogical approach. In N. Van Deusen-Scholl, & N. Hornberger, Encyclopedia of Language and Education, 2nd edition (pp. 97-111). Springer.

Equal emphasis is given on each of the 4Cs framework in which content is regarded interrelated with communication, culture and cognition. The strongest factor of CLIL is thinking and processing information in which content is more important in remembering and repeating. Consequently, cognition is fundamental. Another major principle is that learners process their understanding of content through communication being scaffolded by teachers and learners. Besides, classrooms are regarded as cultures in which students are a part of communities so as to learn through process (Hemmi & Banegas, 2021:8).

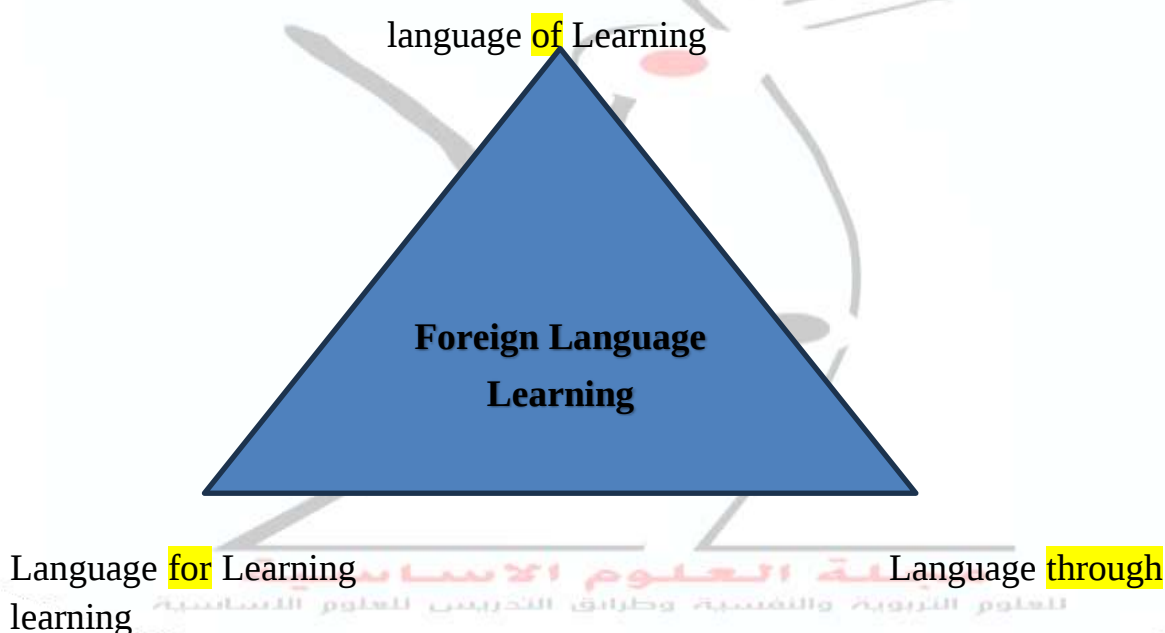


1.4 The Language Triptych

The Language Triptych is a notion established by De Coyle and it is an integral part of the 4Cs framework which clarifying how language utilizes in a CLIL classroom. Through using language triptych teachers can design CLIL lessons which make a balance between content and acquiring the language. The Language Triptych is considered as 'the need to integrate cognitively demanding content with language learning and using' (Coyle et al., 2010).

Reconceptualizing Language Learning

Figure (2) The Language Triptych



(Coyle, Hood and Marsh 2010)

The three dimensions (in the above figure) language of learning, language for learning and language through learning are interconnected in the progression of learning in CLIL. Coyle et al., (2010) 'language of learning is the language required to learn the central concepts and ideas related to a specific subject (it contains the structures that are used to talk about topics related to a subject). As for language for learning, it comprises the strategies which are used by students in cooperative group work in order to achieve learning objectives (it used in pair work and group work



activities). Language through learning is used in the engagement that occurs and it includes the dialogic activities that enable the learners to think and co-construct new knowledge.

1.5 Why is CLIL important?

The CLIL approach has shown a great success round the world. It is gaining traction among schools and universities internationally with 'the ultimate dream of Communicative Language Teaching and Task Based Learning rolled into one' since the content provides the task and authentic communication (Dalton-Puffer, 2007). There are several fundamental reasons for the importance of using CLIL approach in everyday classroom; they are as follows:

- | | | |
|----------------------------------|-----------|-------------|
| 1-Enhanced | language | proficiency |
| 2-Motivation | and | engagement |
| 3- | Cognitive | development |
| 4- Increasing Cultural Awareness | | |

1-Enhanced language proficiency

In fact, the target of CLIL is to develop learners' language proficiency and subject knowledge for instance (science, mathematics, social studies, or fine art, etc.) (Marsh & Frigols, 2012). That's why, such method promotes students to absorb the subject matter in a meaningful and contextually affluent environment. In this way, learners will acquire both linguistic and disciplinary knowledge concurrently (Dzulkurnain et al., 2024).

One of the foci of CLIL is, 'Using languages to learn, and learning to use languages' (Ball, Kelly & Clegg, 2015). Dzulkurnain et al., (2024) proposed that using CLIL in everyday classroom can enhance learners' language proficiency through different linguistic skills containing listening, speaking, reading, and writing. Moreover, learners are able to develop vocabulary, grammar and discourse skills in rich surroundings. Genesee and Hayman (2016) state that using CLIL denotes to instruction that integrates the development of proficiency in an additional language in school contexts where authentic non- language contents (such as science and mathematics) perform as an effective means for language teaching and learning.

2-Motivation, Engagement and Confidence



As a matter of fact, CLIL raise motivation and engagement for students to learn. Adrian and Mangado (2015) clarified that CLIL boosts learners to be engaged in a normal and meaningful language productivity which is better than relying on memorization and fixed examples. Ball, Kelly & Clegg (2015) proposed that it is important for teachers to balance teachers' talk and students' talk and this actually enhances students to be competent in a task not perfect. Learning the content through a target language will lead the students to feel that their learning is meaningful and more productive. As a result, the motivation enables students to disregard the frustration barrier that commonly affects language acquisition. Working in pairs and groups can reduce learner's frustration of failure and on other side developing motivation and collective work helps the learning resultant (Sepesiova, 2015). Students will be more confident to take linguistic risks and critical factors for language development (Eder,2024). In order for students to succeed, it is important that they possess both in language and subject knowledge. Confidence could be gained only in safe and enhanced environment. Broadly, communication in a target language and drill-based activities support learners to reach the goal of confidence (Sepesiova, 2015).

3-Cognitive Development

Cognitive skills comprise a varied range of mental processes, containing memory, attention, problem-solving, critical thinking, and creativity (Anderson et al., 2001). CLIL can enhance students' cognitive development through promoting cognitive flexibility, metacognitive awareness, and critical thinking skills. Besides, considering content in second language will encourage learners' cognitive processes such as problem-solving, inference-making, and hypothesis testing (Dzulkurnain et al.,2024).

Moreover, CLIL creates such an environment in which learners can get an opportunity to use their cognitive skills to set up their knowledge. Thus, learners will use various thinking skills such as analyzing, differentiating, organizing, classifying, comparing, matching, synthesizing, guessing, evaluating and creating (Hanesova,2014).

4-Increasing Cultural Awareness



Contribution in CLIL programs actually makes learners and teachers to be wide-opened to a different cultural perspective in everyday interaction. Besides, it promotes intercultural competence through using content from various cultural and linguistic background (Dzulkurnain et al.,2024).

To clarify more, intercultural competence refers to the capacity in which students can intermingle efficiently and appropriately with others from different cultural backgrounds. It comprises cognitive, affective, and behavioural dimensions, containing knowledge of other cultures, positive attitudes towards cultural differences, and skills in intercultural communication (Deardorff, 2006). It is crucial to comprehend the culture that exists among colleagues and co workers and combined into knowledge acquisition so as to simplify the transmission of this knowledge; and allow learners to adapt while working within this environment (Boys and Gallagher 2019).

1.6 The Advantages of CLIL Approach for Teachers

CLIL approach is not only beneficial for students but for teachers as well. Integrating CLIL content in everyday lesson can assist teachers to improve their own subject knowledge and they will have a border perspective as educators. As a result, teaching CLIL lessons can enhance teachers to improve teaching skills through their strategies to fulfil the requirements of teaching content. Collaboration among teachers is very crucial. CLIL approach can promote partnering work among teachers. In such a case, they are able to share knowledge and experience, learn from each other and improve new strategies that develop learning process. Being a part of motivation and satisfaction among teachers is vital to empower their capacities (Davenport, 2023). Generally speaking, CLIL teachers require to be more competent in both language and content (Papaja, 2013).

1.7 The Role of the Teachers in CLIL classroom

Teachers' role in CLIL classroom is exceptionally significant. Whitty (1996) clarified distinctly as 'Professional values, professional development, communication, subject knowledge, understanding of learners and their learning'.



Teachers in CLIL should be able to identify the need to change the instituted habits that is used in L1 in teaching when teach the same content in L2. The qualified teacher will recognize the CLIL context is not only relied on the importance of teacher's linguistic competence but also that of learners. This leads instantly to the notion of methodological shift from teacher- centered to learner- centered method (Papaja, 2013).

Marsh et al (2001) summarized the 'idealized competencies' required of a CLIL teacher:

1-Language / Communication:

- Sufficient knowledge of the target language and pragmatic skills for CLIL.
- The language used requires sufficient knowledge.

2-Theory

- Conception of the differences and similarities between the notions of language learning and language acquisition.

3-Methodology

- ability to recognize the linguistic difficulties.
- ability to use interaction methods that simplify the comprehension of meaning.
- ability to use strategies (e.g. repetition, echoing , etc.) for modification and for modelling good language practice.
- ability to use combined- focused activities which concurrently cope with the language and the subject aspects.

4-The Learning Environment

- ability to work with learners with multilingual linguistic /cultural backgrounds.

5-Materials Development

- ability to take and utilize materials.
- ability to select complementary materials on a given topic.

6-Assessment

- ability to improve and implement evaluation and assessment tools.

1.8 The Challenges of CLIL Implementation



Hughes and Madrid (2020) clarified that there are three important elements that significantly influence CLIL implementation which are: -Teacher's proficiency

2- Institutional Support

3- Resource Availability

1- Teacher's proficiency

Teachers are regarded the main element in the implementation of CLIL, so teachers should be qualified enough in using the second language to achieve this goal and to enhance students' understanding for the content appropriately. Some teachers think that using CLIL is just a matter of shifting from the language of the content into their target language (Pavon, 2013).

In order to utilize CLIL approach effectively, teachers should have dedicated skills in both language teaching and content delivery and ongoing training to support them (Dzulkurnain et al.,2024).

2-Institutional Support

In order to implement CLIL approach properly, the institutional support is vital to achieve this goal for instance policy outlines, curriculum design, administrative support, and qualified development initiatives. Educational societies have to identify the value of CLIL as a didactic approach and allocate resources, including funding, time, and personnel, to facilitate its implementation (Dzulkurnain, et al.,2024).

3-Resource Availability

Sufficient resources are also important to implement CLIL in a proper way which include instructional resources, technology, and support services. Truly, this will assist teachers to access to various range of authentic and culturally materials in the target language to deliver content effectively (Dzulkurnain, et al.,2024).

Besides, a new educational route which is known as (education 4.0) in which education and technology work together. It involves the use of advanced technologies, robotics, ICTs, the Internet of Things (IOT), mobile phones, computers, digitalization and automatization as a means of teaching



and supporting teachers to clarify the content in a more dynamic way (Keser & Semerci, 2019).

2. The Curricula Implemented in Iraq

In fact, not all schools in Iraq especially in Basra are actually adopted using English as a medium of instructions but still there are a limited number of them really did. They are as follows:

- Distinguished High School for Boys
- Distinguished High School for Girls
- Gifted Students School in Basra

Regarding Distinguished High School for boys, it was first established in Baghdad in 1990 and established another one for girls in the same year. Subsequently, it expanded to include additional schools in Basra and Mosul. The curriculum that is used in these schools is different from the ones in the local schools. Moreover, teaching in these schools relied on using English as a medium of instructions and even using French. In (2016-2017) the scientific subjects (Math, Biology, Physics, and Chemistry) began to be taught in English; starting from the first intermediate grade (seventh stage).

As for Gifted Students school, it is a co-educational institution which was established in 1998 in Baghdad. Subsequently, it expanded to be included in Basra and other Iraqi provinces in (2007-2008). Besides, English is implemented as the medium of teaching from the first intermediate grade (seventh stage). Students in this school study humanities subjects around 30% and the scientific subjects (Math, Biology, Physics, and Chemistry) around 70%. All these schools are characterized by a curriculum that differs from the one implemented in public schools. Yet it includes the core competencies required for students in the public schools.

3. Methodology: Material, Methods and Data Analysis

In the current study, the researcher has used the descriptive analytical method of a research analysis. The main research instrument which is teachers' questionnaire is going to be analyzed statistically according to the weighted mean, and the weighted percentage of the items. It is based on data collected from (25 male/ 27 female) teachers in three main schools in Basra. They are Distinguished High School for Boys, Distinguished High School



for Girls, and Gifted Students School in Basra especially these schools are mainly adopted using English in teaching scientific materials.

In line with the aims of the study, the main teachers' twenty-three items questionnaire has been designed to extract the data to be investigated. A five-point Likert's scale has been used. It consists of five rating values beginning from the highest to the lowest values: strongly agree, agree, neutral, disagree, and strongly disagree (Babbie, 2008).

Table (1) Overview of participating Teachers

Schools	Male	Female
Distinguished High School for boys	9	11
Distinguished High School for girls	6	10
Gifted Students School	6	11

3.1 Validity and Reliability

In order to check the face validity of the teachers' questionnaire, the questionnaire was referred by a number of professors and specialists in the fields of ELT. They pointed out their opinions, remarks and propositions about the correctness, validity, applicability of the questionnaire's items. After revising the referees' significant remarks, none of the items has been deleted. But certain items have been revised and reformulated.

Regarding Internal Coefficient Validity, Pearson's Correlation Coefficient has been used in order to achieve the congruence and the relationships among the 23 items of the questionnaire. The results showed that most of the values are statistically significant as they are shown in table (2):

Table No. (2) Pearson's Correlation Coefficient among the Items of the Questionnaire

No. of the Items	Correlation Coefficient	No. of the Items	Correlation Coefficient
1	0.60**	13	0.47**
2	0.12**	14	0.45**
3	0.39**	15	0.44**
4	0.35**	16	0.35**



5	0.56**		17	0.18**	
6	0.35**		18	0.21**	
7	0.49**		19	0.45**	
8	0.18**		20	0.24**	
9	0.28**		21	0.44**	
10	0.30**		22	0.45**	
11	0.58**		23	0.40**	
12	0.59**				

In this study, the coefficient of reliability according to Alpha Croanbach's formula which is usually the best method used to measure the internal consistency and the homogeneity among the items of the questionnaire (Cohen & Swerdlik, 2009). Consequently, reliability is achieved by finding out the mean and the standard deviation of the chosen sample of the teachers' questionnaire. After analyzing the sample through the computer software SPSS, the result value of the coefficient reliability is (0.742).

3.2 Data Analysis

The first goal is to identify the skills of integrating the content and the language in teaching the scientific subjects in secondary schools for the sample. The researcher extracts weighted mean and weighted percentage for each item of the questionnaire and discuss the skills which get the highest level in the first quarter. And the skills which get the lowest level in the last quarter as it is shown in table (3):

Table (3) the skills of integrating the content and the language according to the weighted mean and weighted percentage for the sample

item s	alwa ys	Ofte n	sometimes	seldom	never	total	Weight mean	Percent mean	ranking
1	23	21	9	3	1	52	4.26	85.38	1
2	21	10	18	1	2	52	3.90	78.07	5
3	18	10	18	6	0	52	4.26	85.38	11
4	12	13	14	6	7	52	3.32	66.53	15
5	9	10	23	5	5	52	3.25	65	16



6	12	20	17	2	1	52	3.76	75.38	8
7	13	9	8	8	14	52	2.98	59.6	18
8	8	12	21	7	4	52	3.25	65	16
9	21	12	14	3	2	52	3.90	78.07	5
10	15	17	19	1	0	52	3.88	77.69	6
11	10	18	18	4	2	52	3.57	71.53	13
12	11	19	15	5	2	52	3.61	72.30	11
13	9	8	19	11	5	52	3.09	61.92	17
14	7	16	24	2	3	52	3.42	68.46	14
15	11	19	15	3	4	52	3.57	71.53	13
16	13	21	11	6	1	52	3.75	75	9
17	18	14	16	4	0	52	3.88	77.69	6
18	13	13	25	1	0	52	3.73	74.61	10
19	15	17	17	2	1	52	3.82	76.53	7
20	10	19	16	6	1	52	3.59	71.92	12
21	25	14	10	1	2	52	4.13	82.69	2
22	22	16	7	3	4	52	3.94	78.84	4
23	25	12	10	4	1	52	4.07	81.53	3

Starting with the items which get the highest level in the first quarter , table (3) above shows that item (1) in the questionnaire (Do you explain the scientific materials (such as physics, chemistry, Math....etc.) in English as a medium of teaching?) scored the first rank due to achieving a weighted mean of (4.26) and a percentage weight of (85.38%). This indicates that most of the teachers are committed to using English as a medium of teaching. Item (2) (Do you create graphic organizer such as diagram /timelines/charts for any numbers, spider maps to clarify the scientific materials in English?) gain a weighted mean of (3.90) and a percentage weight of (78.07). It shows how teachers are really concerned in using charts and graphics to explain the scientific materials.

As to item (21) in the questionnaire which is the second highest one with a weighted mean of (4.13) and a percentage weight of (82.69); it indicates that most teachers really attempt to join training courses to assist their students throughout the educational process. And regarding item (9) in the



questionnaire (Before you start the lesson, do you focus on the (target) important vocabulary of the new scientific materials in English for the class?) with a weighted mean of (3.90) and a percentage weight of (78.07) which clarifies how teachers focus on the important and the new vocabulary for the students before they begin their new lesson. And for item (22) (Does teaching scientific subjects in English enhance student's ability to acquire knowledge?) score (3.94) as a weighted mean and (78.84) as a percentage weight. This item clarifies that most teachers notice students' knowledge and using vocabulary is increased in everyday classroom.

From the upper items in the questionnaire, item (23) (Do you encourage your students to focus on using mental skills like critical thinking and categorization of the events?) with a weighted mean of (4.07) and a percentage weight of (81.53). It shows that most teachers take into consideration to encourage students to use mental skills like critical thinking and categorization of the events.

As for items that get the lowest level (the lowest scoring) in the last quarter in the questionnaire: item (7) in the questionnaire (Do you join a methodological in-service training which assists the developing of the learning process?) with a weighted mean of (2.98) and a percentage weight of (59.6) which shows that most teachers don not join any in-service training programs which enable them to develop their teaching skills. Followed by the lowest ranked item, item (13) which achieved level (17) in the weighted mean and the percentage weight which shows that most teachers do not use games in English to convey the materials to students' minds. Item (8) in the questionnaire which get a weighted mean (4.25) and a percentage weight (65) which clarifies that the time (which is allocated for teachers for the learning process) is not adequate to fulfil all the educational goals.

Also concerning item (5) which achieved level (16) in weighted mean (3.25) and percentage weight (65) which elaborate most teachers do not distribute the students into groups (pair work, group projects). Definitely this is vital to provide the right environment for students to communicate in a foreign language. In addition to the previous items, item (4) in the questionnaire which get a weighted mean (3.32) and a percentage weight (66.53) which



point out that most teachers CLIL show no real concern in any academic cooperation or any evaluation visits with other English teachers. As for item (14) which get a weighted mean (3.42) and a percentage weight (68.46). This item clarifies that most teachers do not promote students to reorder information, make notes on specific information, and fill in the gaps in a text in English after listening to the materials in everyday lesson.

The second goal: The second goal is to explore the extent of teachers' proficiency (male teachers) in skills of integrating language and content in teaching the scientific subjects in secondary schools for the sample. To identify teachers' proficiency in skills of integrating language and content, the researcher uses Fisher Equation to extract the weighted mean and the percentage weight for each item, then arrange the items in downward order according to the weighted mean and the percentage weight as it is shown in table (4). Thus, the researcher decides to take the first quarter for the highest weighted mean and the percentage weight and the last quarter for the lowest weighted mean and the percentage weight for the items and explain them in the light of that.

Table (4) the skills of integrating the content and the language according to the weighted mean and weighted percentage for the sample (Male Teachers)

Item	Weight mean	Percent weight	Ranking
1	4.28	85.6	2
2	3.92	78.4	5
3	3.48	69.6	12
4	3.8	76	7
5	3.16	63.2	17
6	3.88	77.6	6
7	3.2	64	16
8	3.24	64.8	15
9	4.04	80.8	4
10	4.08	81.6	3
11	3.48	69.6	12
12	3.4	68	13



13	2.76	55.2	19
14	3	60	18
15	3.56	71.2	11
16	3.76	75.2	8
17	3.68	73.6	9
18	3.64	72.8	10
19	3.76	75.2	8
20	3.28	65.6	14
21	4.32	86.4	1
22	3.88	77.6	6
23	4.04	80.8	4

From table (4) item (21) gets the highest weighted mean (4.32) and a weighted percentage (86.4) and this indicates that most teachers attempt to develop English language and enroll in English courses to help their students to comprehend the scientific materials properly. Also, item (1) gets a weighted mean (4.28) and with a weighted percentage (85.6) which how without any doubt that most teachers who teach scientific materials like physics, chemistry....etc. are dedicated to use English in teaching the scientific subjects in every day lessons. Next item is number (10) which get a weighted mean (4, 08) and with a weighted percentage (81.6) illustrates that most teachers are really aware of the importance of encouraging students to develop their linguistic abilities throughout their studying of methodological subjects.

Followed by, item (9) with a weighted mean (4.04) and with a weighted percentage (80.8) which highlights teachers' instructional focus on the (target) vocabulary of the new scientific materials in English for the class. Also, item (23) with a weighted mean (4.04) and with a weighted percentage (80.8) which states that encouraging students to use mental skills like critical thinking in their study.

As for items that get the lowest level (the lowest scoring) in the last quarter in the questionnaire and are implemented by the teachers to a limited extent:



Item (13) with a weighted mean (2.76) and with a weighted percentage (55.2) which states that (Do you use games like Guess who, crosswords, songs, phone apps, place a bet in English?). The result shows that teachers mainly neglect these activities in everyday classes. Also, item (14) with a weighted mean (3) and with a weighted percentage (60) which states (After listening to the materials, do you promote your students to reorder information, make notes on specific information, and fill the gaps in a text in English). This result indicates that teacher do not actively promote students' utilization of listening skills and use it in English due to its significance in enhancing their linguistic competence.

As for items (20, 8, 7, 5) each one gets weighted means ranged between (3.28- 3.16) and a weighted percentages (63.2 – 65.6) which state respectively:

- Do you distribute the students into groups (pair work, group projects) to provide the right environment to communicate in a foreign language?
- Do you join a methodological in-service training which assists the developing of the learning process?
- Is the time that is allocated for teacher for the learning process is adequate?
- Do you focus on using language tools explanation (synonyms, peripherals, language of comparison, describing process, discourse markers, etc. in English throughout the learning process?

These items above clearly show that teachers are not very much concerned on adopting pair work, group projects as a crucial mean to develop the interactive aspect for the students. In addition to that, the results show the lack of teachers' participation in-service training throughout their teaching profession. Besides, it demonstrates that the time of everyday lesson is not actually sufficient to achieve all the required activities to teach the scientific materials appropriately. And in relation to language tools, the result shows their limited use for such tools such as synonyms, peripherals, language of comparison, describing process, and discourse markers in spite of its value in everyday lesson.

The Third objective: is to explore the extent to which teachers are proficient (female teachers) in skills of integrating language and content in teaching the



scientific subjects in secondary schools for the sample. To identify teachers' proficiency in skills of integrating language and content, the researcher uses Fisher Equation to extract the weighted mean and the percentage weight for each item, then arrange the items in downward order according to the weighted mean and the percentage weight as it is shown in table (5). Thus, the researcher decides to take the first quarter for the highest weighted mean and the percentage weight and the last quarter for the lowest weighted mean and the percentage weight for the items and interpret them in the light of that.

Table (5) the skills of integrating the content and the language according to the weighted mean and weighted percentage for the sample (Female Teachers)

Item	Weight mean	Percent weight	Ranking
1	4.25	85.6	1
2	3.88	77.7	7
3	3.74	74.8	12
4	2.88	57.7	19
5	3.33	66.6	17
6	3.66	73.3	14
7	2.77	55.5	20
8	3.25	65.1	18
9	3.77	75.5	10
10	3.70	74.07	13
11	3.66	73.3	14
12	3.81	76.2	9
13	3.40	68.14	16
14	3.81	76.29	8
15	3.59	71.85	15
16	3.74	74.81	11
17	4.07	81.48	3
18	3.81	76.29	8
19	3.88	77.77	6
20	3.88	77.77	6
21	3.96	79.25	5



22	4	80	4
23	4.11	82.22	2

From table (5), item (1) (Do you the scientific materials such as physics, Math, chemistry, etc. in English? which gets the highest weighted mean (4.25) with a weighted percentage (85.6). This result indicates that most teachers (female) are really concerned about using English as a mean for teaching and explaining the scientific materials in everyday classroom. As for item (23) with a weighted mean (4.11) with a weighted percentage (82.2) which states that (Do you encourage your students to focus on using mental skills like critical thinking and categorization of the events?). The result shows a good academic attention from the teachers for such intellectual and cognitive skills which are important to develop English language proficiency in parallel with the required scientific curriculum.

Followed by item (17) with a weighted mean (4.07) with a weighted percentage (81.4) which states that: (Do you make on-going assessments (not a big or full exam?) which illustrates that most teachers make on-going assessments because of its vital influence the linguistic and the scientific level for the students. Also, item (21) which scored (3.96) as a weighted mean and (79.2) as a percentage weight; it states (Do you try to improve your English and join courses to assist your students throughout the learning process?). The result clarifies that most teachers are fully aware of the importance of to increase their linguistic level due its effectively delivering the required material to the learners. In addition to the above items, item (2) which scored (3.88) as a weighted mean and (77.7) as a percentage weight which states (Do you create graphic organizer such as diagram /timelines/charts for any numbers, spider maps to clarify the scientific materials in English?). The outcome of this item shows that most teachers utilize educational tools effectively.

As for items that get the lowest level (the lowest scoring) in the last quarter in the questionnaire and are implemented by the female teachers to a limited extend:

Item (7) scored (2.77) as a weighted mean and (55.5 %) as a percentage weight which states: (Do you join a methodological in-service training



which assists the developing of the learning process?) This result shows that insufficient teachers' attendance for any in-service training which assists the developing of the learning process. Followed by item (4) scored (2.88) as a weighted mean and (57.7%) as a percentage weight which states (Do you counsel some of English teachers for cooperation (from linguistic point of view) to facilitate the learning process inside the class). This item highlights the lack of teachers' attention to this part although it is really important to get benefit from the specialists in this field.

Then it followed by items (5-8-13-6) respectively and each one get weighted averages between (3.33 – 3.66) and percentage weight between (55.5 – 66.6) which state:

- Do you focus on using problem-solving method and using active teaching techniques such as brainstorming, critical thinking, and presentation?
- Do you use the student's native language to support the explanation of the scientific materials?
- Do you try to improve your English and join courses to assist my students throughout the learning process?
- Do you distribute the students into groups (pair work, group projects) to provide the right environment to communicate in a foreign language?

The items above show that most female teachers as other male counterpart do not give considerable attention for using problem-solving method and using active teaching techniques such as brainstorming, critical thinking, and presentation. Problem- solving and these techniques assist students to develop their ability to think critically and to be more confident. In addition, teachers do not focus on improving their English through participating in any program designed to improve language skills. Besides, distributing the students into groups has a crucial effect to increase students' ability to communicate effectively in everyday classroom.

Conclusion

Although some teachers (whether male or female) show a reasonable use of certain teaching skills and activities in everyday classroom, the results illustrate that they are not fully aware of using CLIL as a fundamental teaching method for the scientific materials in their schools. And they are



still in need for further professional development to increase their skills in this field. Simply, acquaintance of using CLIL can give teachers the necessary basics to achieve the teaching goals. The methodology of integrating both the language and content is supposed to be the main concern for teachers.

The study has demonstrated that most teachers are really in need for systematic training courses in CLIL in order to raise students' level in content and language equally. Language competence can be actually improved with a proper language course directed specifically for teachers. Lack of training can also lead teachers to shift from a facilitator to a controller throughout the learning process. Communication and using language should be dominant in order to offer a considerable opportunity for students to use the language effectively.

Suggestions and Recommendations

-Practically, teachers should be aware of the importance of using of CLIL and aim to combine the content and the language focused instruction. This will help learners to gain language use for actual communication and content accuracy as well.

-Teachers should join specialist training programs for teaching CLIL approach and devoted for bilingual education to improve their abilities.

- Teachers should enroll in professional network programs which could help them to share ideas or thoughts with other CLIL teachers around the world.

-Teachers should be provided with technology and support services in order to help them to assess different authentic and cultural materials. Particularly, education 4.0 in which education and technology really exist together in everyday classroom.

-CLIL approach could be applied to other gifted schools in Basra as a step toward expanding the use of CLIL to improve the learning process.

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