

# Improving the Students' Spiritual Intelligence in English Writing through Whole Brain Learning

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Received: February 13, 2016 Accepted: March 20, 2016 Online Published: March 22, 2016

doi: 10.5539/elt.v9n4p230 URL: <http://dx.doi.org/10.5539/elt.v9n4p230>

## Abstract

The objective of this research was to improve the students' spiritual intelligence in English writing through Whole Brain Learning strategy. Therefore, this study was conducted as a classroom action research. The research procedure followed the cyclonic process of planning, action, observation, and reflection. This process was preceded by pre-liminary study in order to know the students' spiritual intelligence in English writing before being taught by the whole brain learning. The data was collected from the results of spiritual intelligence questionnaire, observation, interview, and documentation. The subjects of the research were 30 students in English Education Department, Universitas Islam Negeri Sumatra Utara. The quantitative data were analysed by using t-test in Statistical Package for the Social Science (SPSS) and the qualitative data were analysed by using Miles and Huberman technique: data reduction, data display, and verification. As a result, there was a significant improvement in students' spritual intelligent in English writing when they were taught through Whole Brain Learning.

**Keyword:** spiritual intelligence, improvement, English writing and whole brain learning

## 1. Introduction

The main objective of the learning writing to the English Education Department students is that they are expected to be able to write an academic essay. To achieve this, the students do not only need knowledge and skills in writing but also need good emotion and spirituality (Zohar & Marshall, 1995).

Knowledge of writing refers to the vocabulary, grammar, language function, content and context. Skill of writing deals with the technique of writing such as how to get started or working for inspiration, formulating a thesis, making an outline to plan connection, writing an introduction, shaping the middle of the essay, ending the essay, revising the first draft, and editing the essay (Brown, 2007).

Emotion has crucial role in learning writing. Through good emotion, the learners involve in learning. The involvement in learning make the learners feel joyful and the long-term memory is activated. If this memory is active, the information of the lesson (the knowledge and the skills of the writing) is stored longer and possible to reproduce it. To utilize the knowledge, the skills, and the emotion in learning writing in a unified way, the spiritual intelligence should be involved.

However, in reality, the students' spiritual intelligence in English writing was still low. The students, when learning English writing, are not motivated to write. They tend to be more interested in knowing the technique of writing rather than moving their hands to write in English. When the lecturer forced them to practice writing, they needed more and more time. Even some students did not write anything, some wrote two or three sentences, and some other wrote many sentences but the organization of the idea, the grammar, the English diction and the use of punctuation were not written adequately.

To improve the students' spiritual intelligence in English Writing, the whole-brain learning approach will be used. This approach does not only stimulate the left hemisphere but also at the same time stimulate the right hemisphere. By integrating both sides of hemispheres in English Writing, the spiritual intelligence of the students could be enhanced.

Based on the background and the objective of the study, the research problem is formulated as follows:

How can the whole brain learning improve the students' spiritual intelligence in English Writing as a foreign language?

## 2. The Literature Review

### 2.1 *Spiritual Intelligence in English Writing*

Vaughan (2004) defines spiritual intelligence as multiple ways of knowing and integrating the inner life of mind and spirit with the outer life of work in the world. To do our work successfully, we need a strategy how mind and spirit optimally involve finishing the work. Our mind operates thinking and feeling when doing the work. Thinking is used to process logic, writing, numbers, language, analysis, arithmetic, and order, while feeling is used to process creativity, concept, music, image, dimension, emotion, and shape. In other words, when the process of thinking operates together with feeling, the optimal results of our work will be gained.

In the same sense, Amran and Dryer (2008) declare that spiritual intelligence as the ability to apply, manifest, and embody spiritual resources, values, and qualities to enhance daily functioning and wellbeing. Spiritual resources such as breathing practices, reciting prayer, nutrition, service and charity, silence including brain gym can enhance and expand the consciousness of the mind-body complexity. Spiritual values refer to worth of life such as self-forgiveness (i.e. expressing ideal of wisdom), intimacy (expressing ideal of love), interconnection (expressing ideal of compassion), or justice (expressing ideal of peace). Spiritual qualities refer to virtues (such as feeling secure, feeling love, understanding and compassion, selflessness and peace) which originate in our inner self and penetrate into our personality. Based on their theory, Amran and Dryer propose 7 major themes which emerged as nearly universal across the spiritual traditions and participants: 1) consciousness, 2) grace, 3) meaning, 4) transcendence, 5) truth, 6) peaceful surrender, and 7) inner-directedness.

In different term, Parthasarathy (2012) is seeing the spiritual intelligence as an intellect. The intellect, according to him, is that which thinks, comprehends, reasons, judges, and decides. It is designed to guide and direct the mind and its emotions, the body and its perceptions and actions. This intellect is utilized to think, plan and program our life with the available knowledge. There are two kinds of intellect: the gross-intellect and the subtle intellect. The gross-intellect operates within the precincts of the terrestrial world, while the subtle crosses the limit of the terrestrial world to conceive the transcendental reality. The spirit expresses through the gross-intellect as the thinker and expresses through the subtle-intellect as the contemplator. Thus, humanbeing is not only developed as the perceiver, actor, feeler, and thinker but also as the contemplator. So, the spiritual intelligence is used to integrate between the body and mind with the intellect. It can be cultivated through questing, inquiry, and practice. The end result of the spiritual intelligence is wisdom and compassionate action in the world. The spiritual intelligence is necessary for discernment in making spiritual choices that contribute to psychological wellbeing and overall healthy human development (Vaughan, 2004).

Another concept of the spiritual intelligence is a way to give meaning and purpose in life and it allows us to create new possibilities ([www.iitransform.com](http://www.iitransform.com)). To give meaning and purpose in life means that what we have learned should be utilized to create new things or products. Humanbeings use the things or products to make their life easy, happy, and peaceful. To be able to give meaning and purpose, there are at least 12 principles of spiritual intelligence: 1) self-awareness, 2) spontaneity, 3) being vision- and value-led, 4) holism, 5) compassion, 6) celebration of diversity, 7) field independence, 8) humility, 10) ability to reframe, 11) positive use of adversity, and 12) sense of vocation (Zohar, 2014).

Writing in English as a Foreign Language, the spiritual intelligence is crucially needed by the students of English Education Department because when in writing, the students should be able to utilize the knowledge, skills and emotion. The better ability to utilize the students' writing knowledge, skills and the emotion, the better their writing will be.

The students' knowledge in writing refers to knowledge in language such as vocabulary, grammar and mechanics. The skills in writing cover the ability to write correct sentences, the ability to manipulate sentence and use language effectively, ability to use punctuation and spelling correctly, and the ability to write in an appropriate manner for a particular purpose with a particular audience in mind together with an ability to select and organize relevant information (Saleh, 2015).

The emotion in writing is the students' feeling involment in learning writing. This takes an important role in the success of learning writing since the emotional proficiency has the same significance as a guide of learning mathematics and reading (Goleman, 1995). This includes integrity, honesty, comittment, vision, mental defence, wisdom, justice, belief principle, self-control or synergy as parts of the emotional intelligence (Agustian, 2001).

In conclusion, the spiritual intelligence is the ability to utilize the knowledge, the skills and the emotion in

learning writing in order to achieve the students' consciousness, grace, meaning, transcendence, truth, peaceful surrender and inner-directedness in English Writing.

## 2.2 Whole Brain Learning

Whole brain learning is a learning, which is based on the neural function (E. P. Dennison & G. E. Dennison, 2007). This kind of learning has five principles: draw out, focus, notice, move to learn, and interconnect. Draw out means to begin the learning by finding our natural pace. Pace stands for positive, active, clear, and energetic. The movement of pace starts from energetic by sipping water, clear by messaging brain buttons, active by doing cross crawl, and positive by doing hook-ups. Focus is to set a goal of learning. Notice is learning what the students actively experience. Move to learn means growth is a search for balance and imbalance is a search for growth. When the students do the movements to attain new skill level, they naturally discover or rediscover their own sensory congruency. Interconnect means that whole brain learning gives better access to sensory congruency, and when the learning occurs in a cooperative, community-based way, with participants supporting each other's explorations and discoveries, every body wins.

Whole-brain learning can also be defined as an instructional approach derived from neurolinguistic awareness of the functions of the brain's left and right hemispheres (www.spectrumacademy.us). This learning emphasizes the integration between both hemispheres. In order to integrate the two sides of the hemispheres, the mind, emotion, and body should be activated simultaneously in learning.

The mind process is executed in the neocortex. It is located in the front lobe of the brain. This is called the learning brain. The learning brain consists of two parts: left and right hemispheres. This part of the brain is responsible for high level of learning such as learning English writing as a foreign language, developing skills, unlimited storing capacity, and higher level of thinking. This part is closed to the mammalian system. It utilizes the inputs from the emotional process from memory and thinking to develop creativity and decision-making. The rational neocortex and the emotional mammalian system will be connected closer in learning if the information or the lesson is presented in a meaningful, relevant, and interesting way.

The emotion is processed in the mammalian brain or the limbic system. This part of the brain is the center of long-term memory. The position of the mammalian brain is below the neocortex. This brain layer should be activated in order to be able to access all experiences gained previously in the long-term memory. Emotion and activating previous experience is crucial for motivation. The impulse in this system is used to learn and memorize something. This will occur if there will be sense inputs and emotional connection. All incoming stimuli are processed in this system. This mammalian system also connects the stimuli to the neocortex that enables it to emotional and cognitive processing. Someone could remember an event in detail when it is accompanied with feeling. With the intense feeling, we could not easily forget what to remember.

The body should be moved in order to regulate relaxation and stress response. This is the function of the reptilian brain. This brain which located in the brain stem automatically controls the vital functions such as self protection. It also activates our body to preserve. Besides, the reptilian brain controls frightened or brave responses, chemistry in the brain to response whenever the learner feels threatened physically or emotionally.

Based on the above theories, the whole brain learning has at least 7 characteristics: 1) an approach to teaching combining direct instruction, sharing, and immediate feedback which integrates movement, gestures, songs, chants, music, dances, and technology based project into teaching, 2) the use of project assessments versus formative and summative formal tests as well as teaching that in general breaks away from the standard "lecture" model, 3) in general seeking to actively engage every student in the lesson by incorporating many different teaching techniques into one lesson, 4) focusing on daily activity, 5) allowing students to become the "more knowledgeable ones" in control of teaching, 6) Teaching to the whole brain requires establishing rituals and routines, stimulating emotions and allowing students to become active learners, and 7) the teacher' role is a facilitator and the students become the teachers (<http://ashleytipton.weebly.com>).

The procedure of the whole brain learning has seven steps namely using the attention getter class yes, classroom rules, teach-ok, scoreboardgames, hands and eyes, mirror, and switch (<http://ashleytipton.weebly.com>). In teaching English writing, the whole brain learning has the following procedure: 1) doing group presentation, one group for one meeting, 2) the first member of the group as a master of ceremony recites the attention getter 'class yes', 3) the second member guides the class to do spiritual brain gym, 4) the third member recites the character prayer, 5) the fourth with the other three members one by one teach the a small portion of the lesson which is displayed in the mind mapping, 6) the lecturer asks the class to sit in groups of four, 7) one member of each group mimicks the teacher's way of presenting the lesson, 8) the lecturer gives one easy topic and asks all groups (presentation group and other groups in the class) to write about the topic, 9) each group report their writing to the

class one by one in front of the classroom, other groups give their comment on the report, and 10) giving individual writing assignment related to the lesson.

### 3. Research Method

This research was conducted as a classroom action research. It was conducted to 30 students at the English Education Department, Faculty of Tarbiya and Teaching Science, Universitas Islam Negeri Sumatera Utara, Indonesia. The research procedures followed the cyclonic process of planning, action, observation, and reflection. This process was preceded by pre-liminary study in order to identify the problem of the students' spiritual intelligence in English writing. The qualitative data were collected from observation, interview, and documents. The quantitative data were collected from pre-test and post test. Then, the data were analysed by using t-test in SPSS and the qualitative data was analysed by using Miles and Huberman technique: data reduction, data display, and verification.

### 4. Research Finding

After analysing the quantitative and qualitative data, the results of this study show that in the preliminary study, quantitatively, the students' spiritual intelligence was that the result of the  $t_{\text{observed}}$  is 48.57 on the confidence level of 0.05, the mean score is 336.60, the standard deviation is 30.99, with the minimum score 276 and the maximum score 395. The mean score of the students in the preliminary study is still 70% of the highest score 478. While the target score is 358.5 (75%). This means that the students' spiritual intelligence score in writing is still less than 75%. Therefore, the researcher would like to implement the whole brain learning to increase the students' spiritual intelligence in writing.

The quantitative data is supported by the following qualitative data. One of the students stated that his target in English writing was not achieved yet. He said that:

*"Tidak sama sekali karena saya pikir metode yang digunakan dalam mengajar sangat tidak sesuai"* (Not at all because I think the teaching method used by the lecturer is not suitable for me)

(Ps.Wrt-Int.S1). *Not at all* here means that the student still could not achieve his target in learning English writing. He thought that the main cause why his target could not be achieved yet is the way his lecturer teaches the writing subject. In this case, the student realizes that he is still not successful in his life especially to achieve the target of learning writing. Unsuccessfulness in learning writing shows that the student's spiritual intelligence is still not good yet.

Another student who was interviewed by the researcher answered the question whether the student's learning writing today is joyful or not, together with the reason, stated that:

*"Bagi saya tidak begitu menyenangkan, mungkin karena saya belum terlalu pandai"* (For me, writing is not joyful, probably because I am not so smart)

(Ps.Wrt-Int.S2). Here, the student's grace of joy is still low. When this joy is still low, the student's spiritual intelligence is regarded low.

Beside the two students above, in the preliminary study, a different student who was interviewed by the researcher answered the question about what difficulties that he has overcome and not yet overcome. He declared that:

*"Semua kesulitan itu belum ada yang teratasi sampai sekarang"* (Until now, all difficulties are not overcome yet)

(Ps.Wrt-Int.S3). The student's statement shows that the students' grace is not positive in learning writing.

Based on the quantitative and qualitative data above, it can be concluded that, in the preliminary study, the students' spiritual intelligence in writing is regarded still not good yet. Therefore the researcher would like to improve the students' intelligence in English writing through whole brain learning.

In the first cycle, after implementing the whole brain learning, the researcher improved the students' spiritual intelligence by following four cyclonic processes: planning, implementing, observing, and reflecting. The result shows that the result of the  $t_{\text{observed}}$  is 57.76 on the confidence level of 0.05, the mean score is 337.10, the standard deviation is 26.10, with the minimum score 278 and the maximum score 385. The gain score of the first cycle from the preliminary study is 0.50 ( $337.10 - 336.60 = 0.50$ ). In the first cycle, the students have obtained 70,52% of the spiritual intelligence improvement. This means that there is a little bit improvement of the students' spiritual intelligence in the first cycle. The target of 75% is not yet achieved.

Quantitatively, the improvement from the preliminary study to the first cycle is not significant yet because of

several reasons: 1) the students regard that whole brain learning is something new for them so that they are not accustomed to follow this approach because they usually do the teacher centered approach in which the lecturer more dominates the learning activity in the class rather than the students, 2) the whole brain learning directs the students to be more independent in learning, 3) the whole brain learning urges the students to be more creative and initiative, and 4) the role of the students is bigger.

The quantitative data above is strengthened by the following qualitative data in which was taken from interview. Related the students' feeling after following the whole brain learning, the result of the interview shows that:

*“Yang saya rasakan ketika belajar advanced writing dengan menggunakan whole brain learning adalah pikiran saya lebih tenang dan mendapatkan inspirasi untuk menulis.”* (What I was feeling while learning advanced writing by using whole brain learning was that I feel more peaceful and inspired to write)

(C1.Wrt-Int.S4). This data tells us that the whole brain learning gives positive effects on the students that can change their spiritual intelligence to be better. To be peaceful and inspired shows that the students have better spiritual intelligence.

The student's statement shows that after the whole brain learning was implemented, her feeling has changed positively and has opened her mind to produce more ideas in writing. The change in the spiritual intelligence is also experienced by the following student:

*“Cukup menyenangkan karena menggunakan metode yang baru dan unik serta berinovasi baru dan diiringi dengan praktek serta angket-angket.”* (Joyful enough because of using new and unique method, new innovation followed with practice and filling out a questioner)

(C1.Wrt.Int. S5). Feeling joyful indicates that the student has better spiritual intelligence.

Another student emphasizes that the spiritual intelligence in writing could be improved with the help of whole brain learning as it is stated below:

*“Saya merasa lebih nyaman karena dengan begitu otak kita akan lebih fresh dan pelajaran akan lebih mudah ditangkap dan kalau otak kita dalam keadaan stres otomatis konsentrasi akan menurun “* (I feel more peaceful so that our brain is fresher and it is easier to catch the lesson and if we are in the stress condition automatically cause our less concentration) (C1.Wrt.Int.S6).

From the data stated by student 6, it can be declared that spiritual intelligence in writing becomes better because he feels more peaceful, fresher, and easy to catch the lesson as well as to make concentration in learning better.

Beside from the students, the collaborators also stated that the spiritual intelligence in writing of the students is growing better. One of the collaborators said that:

*“Suasana kelas terasa hidup, mahasiswa begitu antusias saat pembelajaran dimulai. Audiens sangat fokus mendengarkan instruksi dan materi pembelajaran”* (The situation of the class is more alive, the students are so enthusiastic when the learning begins. The audience concentrates in listening the lecturer's instruction and the learning materials)

(C1.Wrt.Int.Col.1). Anthusiasm in learning is one of the indicators that the student has better spiritual intelligence.

Another collaborator declared that:

*“Antusias mahasiswa dalam belajar writing lebih semangat dan terlihat lebih peduli. Sebab saat dalam kelas sebelum memulai pelajaran, mahasiswa dibawa lebih santai”* (The students' anthusiasm in learning writing is better in spirit and they have a bigger care because before the class begins, the students are directed more relaxed)

(C1.Wrt.Int.Col.2). This data shows that feeling anthusiasm and relaxed in learning writing indicates having better spiritual intelligence.

The effect of the better spiritual intelligence could be seen from the students' writing result as the supporting data shows that most students are successful to discover their topics to be researched but they are not yet successful to write an adequate research question. One of the students wrote the following research question:

*“What the function of pronunciation for the speaker?”*

(C1. S.Wrt. S7). In this case, the student is successful to choose 'pronunciation' as the main topic since this topic contains a student problem. However, she is not successful to write a research question. This data could not be categorised into research question because it does not contain any data to be collected. Here, the student does not

understand the concept of a research question. Besides, the student also made error in grammar.

Based on the above data, it can be inferred that in the first cycle, there has already an improvement in the students' spiritual intelligence in writing after the whole brain learning was implemented. However, the improvement is not significant. Therefore, the research is continued to the second cycle.

In the second cycle, the students' spiritual intelligence in writing shows that the result of the  $t_{\text{observed}}$  is 47.40 on the confidence level of 0.05, the mean score is 344.20, the standard deviation is 28.12, with the minimum score 301 and the maximum score 401. The gain score of the second cycle from the first cycle is 7.10 ( $344.20-337.10=7.10$ ). The gain score of the second cycle from the preliminary study is 8.00 ( $344.20-336.20=8.00$ ). In this second cycle, the students have achieved 72% of improvement in the students' spiritual intelligence in writing. This means that there is an improvement from first cycle to the second cycle but not significant or still less than 75%.

This improvement is supported by the following qualitative data stated by the students and the collaborators. One of the students said that:

*“Yang kedua bertambah variasinya, variasi gerakan dan metodenya sehingga bertambah menarik. Udah mulai dapat makna dan feels dari gerakan-gerakan pembelajaran whole brain learning.”* (The second implementation was more various, variety in movement and method makes learning more interesting. The movement in the whole brain learning becomes more meaningful)

(C2. .Wrt. Int. S8). In this data, the student feels more interesting and more meaningful which indicates having better spiritual intelligence.

Different student made her comment on the implementation of whole brain learning to improve the students' spiritual intelligence. She stated that:

*“Saya lebih self confidence about kesalahan saya. Saya menjadi lebih berani untuk menulis walaupun itu masih salah dalam structure dan pronuncationnya (pronunciation) dan lebih bertambah vocabulary yang ingin saya tulis.”* (I feel more confident although I make some mistakes. I am brave enough to write even though I still make mistakes in structure and pronunciation and activate my vocabulary to be written)

(C2.Wrt.Int.S9) (kemajuan : self confidence). This data says that the whole brain learning could improve the student's self-confidence, bravery to write, and vocabulary activation. This means that the student's spiritual intelligence is growing better.

Another student, after participating in the whole brain learning, declared that:

*“Perkembangan minat saya lebih tertarik dalam menulis bahasa Inggris.”* (My interest in English Writing is growing better)

(C2.Wrt-Int.S10). This data proves that the student's interest in writing increases. This means that the student's spiritual intelligence is improved.

Beside the students, the collaborator said that:

*“Motivasi belajar mahasiswa dalam belajar sangat tinggi. Hal ini dibuktikan dengan semangatnya mahasiswa pada saat memulai pembelajaran. Selain itu kita dapat melihatnya dari keaktifan bertanya mahasiswa pada saat proses pembelajaran berlangsung”* (The students' motivation in learning is higher. This is proven by the fact that the students are motivated when learning starts. Besides, we can see from the students' activeness to ask question in the learning process)

(C2. Wrt. Int. Col 1). This data proves that the students' motivation and activeness in asking question show that their spiritual intelligence becomes better.

The quantitative and qualitative data shows that, in cycle 2, the spiritual intelligence in writing increases better than cycle 1. This improvement has an effect on the student's writing as follows: “How to improve student's ability pronunciation in speaking through drilling method?” (C2. S.Wrt. S7). This research question of the student 7 has already improved better than the first cycle. In this second cycle, student 7 has been successful in formulating the research question about pronunciation. However, mistakes are still found in the research question such as the word “student's” is in the singular form not in the plural form, “ability pronunciation” is not grammatical and ‘how to improve’ does not show a sentence. The student's writing in the second cycle is much better than in the first cycle.

In third cycle, the students' spiritual intelligence in writing indicates that the result of the  $t_{\text{observed}}$  is 59.18 on the confidence level of 0.05, the mean score is 362.35, the standard deviation is 27.38, with the minimum score 303

and the maximum score 415. The gain score of the third cycle from the second cycle is 18.15 ( $362.35-344.20=18.15$ ). The gain score of the third cycle from the first cycle is 25.25 ( $362.35-337.10=25.25$ ). The gain score of the third cycle from the preliminary study is 25.75 ( $362.35-336.60=25.75$ ). This means that there is an improvement of the students' intelligence scores in writing from the preliminary study, first cycle, and the second cycle to the third cycle. This improvement in the third cycle is 76%. It already exceeds the target 75%. This means that the improvement of the students' intelligence has been significant. This quantitative improvement is followed by the qualitative one as what stated by one of the students as follows:

*"Perasaan saya setelah mengikuti pembelajaran advanced writing yang ketiga kalinya dengan menggunakan whole brain learning adalah saya lebih cepat mengerti tata cara menulis yang benar. Jadi perasaan saya tenang."* (My feeling after participating in learning advanced writing in the third cycle by using whole brain learning is that I easily understand the way of writing correctly. Thus, my feeling becomes more peaceful)

(C3. Wrt. Int. S8). Easy to understand and feeling peaceful are showing that the student's spiritual intelligence has increased.

Other student's statement proves the success of improving the spiritual intelligence in writing indicates that:

*"Perkembangan minat menulis saya kini mulai meningkat lebih baik daripada yang kedua karena pada kali ini saya bisa memahami titik masalah yang harus dihadapi pada diri sendiri."* (My interest in writing now increases better than the second cycle because this time I am able to understand my own problem in writing)

(C3. Wrt. Int. S9). This data means that the growing interest and realizing his weakness in writing show an improvement of the spiritual intelligence.

Also, a change of attitude to be aware of writing indicates the improvement of spiritual intelligence. The awareness is expressed by the student as follows:

*"Sikap saya menjadi lebih sadar akan pentingnya menulis. Menulis dalam artian yang bermanfaat baik bagi diri sendiri maupun bagi orang."* (My attitude is that I become aware of the importance of writing which is useful for others and myself)

(C3. Wrt. Int. S10). This change is emphasized by the statement of another student which says:

*"Saya hampir 100% paham dengan materi tulisan saya."* (I almost 100% understand my topic of writing) (C3. Wrt. Int. S11) beside the student, the collaborator said:

*"Dalam belajar, motivasi mahasiswa semakin waktu semakin bertambah. Hal ini dibuktikan kedatangan mahasiswa yang tepat waktu. Meski tidak semua yang datang tepat waktunya, namun kedatangan terlambat mahasiswa sudah berkurang."* (In learning, the students' motivation becomes bigger and bigger. This is proven by the fact that most of them come on time. Although not all students come on time but the students who came late were less than before)

(C3. Wrt.Int. Col 1). Good motivation and not coming late show that the students have better spiritual intelligence.

The improvement of the students' spiritual intelligence in the third cycle gives an effect to the student's ability to write such as what he wrote in the following student's research question:

*"What is the teacher's strategy in teaching English grammar?"* (C3. S.Wrt. S12).

The student's writing shows that the sentence is accurate in the idea of a research question and it is also grammatical. If it is compared with the student's writing in the second cycle, the student's writing in the third cycle is much better. In conclusion, quantitatively and qualitatively, the spiritual intelligence in English Writing can be improved by using the whole brain learning.

## 5. Discussion

Whole brain learning (WBL) could improve the students' spiritual intelligence in English writing quantitatively and qualitatively since in the process of learning writing, the students' brain was activated through the brain gym. This brain gym balanced the three dimensions of the human body which are called laterality, centering, and focus as basic cognitive and motor functions (Dennison & Dennison, 2007).

The process of laterality balanced the left and the right sides of the students' body. These two sides were coordinated to access to optimal functioning of the writing skills. Therefore, the students' writing skills were practiced and mastered. The practice and skill mastery of writing stimulated the students' spiritual intelligence. By this process, the students' spiritual intelligence in writing was growing better.

The process of centering stimulated the students' emotional intelligence in the mammalian or limbic system. This made the students feel joyful, engaged, and enthusiastic (i.e., passion). It also optimized their memory and associations processes, sense of self and ability to interact with others. The improvement of the students' feeling made them eager to write or allowed them to transfer thoughts from brain to hand to paper (Dennison & Dennison, 2007) and the improvement of the students' intuition caused the power of the students' immediate understanding of writing ideas without conscious reasoning is much bigger. Feeling joyful, engaging, enthusiastic, immediate understanding (intuitive) as well as interactive in English Writing have increased the students' spiritual intelligence.

The process of focus made the students' attention and comprehension become better. By this process, the students were able to ascribe meaning to what they wrote. They were able to perceive where they were, imagine new possibilities in writing, and connect with the new cognitive patterns of writing. By having this ability, the students' spiritual intelligence in writing improved.

WBL enabled the students to have positive feeling. This was obtained by them when reciting character prayer. In this prayer, it was mentioned that the students should learn writing because of their God not because of materialistic matters and it encouraged them to follow the more meaningful life. They were also reminded to avoid coming late to enter the class, not to get angry easily, and not to look down others. Besides, they were motivated to help each other in their life, to be honest, patient, always to keep cleanliness, not to waste something for nothing and to get dressed tidily and fragrantly. By reminding these things through prayer, the students possessed the positive feeling. They had the ability to align with the sacred and transcend the egoic self with a sense of relatedness and holism in ways that enhance functioning and wellbeing (Amram & Dryer, 2008). By reminding the students to their God and having positive feeling, their transcendence as their spiritual intelligence in writing became better.

The positive emotions of the students together with their thinking have much more vibration than their body (Sentanu, 2010). This means that feeling and thinking have bigger role than the students' physical appearance. The feeling is our subconscious mind and thinking is our conscious mind. The power of the subconscious mind is 88%, while the conscious mind is only 12%. This subconscious area is activated when the students are relaxed in learning writing. The WBL directed them to be relaxed by doing brain gym before learning. Through relaxed condition, the subconscious mind opened widely and the students' awareness became higher. The cognition (conscious) in which the knowledge and skills of writing operate moved to metacognition in which the awareness of possessing the knowledge and the skills of writing appeared.

In other words, the more positive feeling the students have, the better their awareness will be. The better their awareness, the better their spiritual intelligence in writing because writing needs not only cognition but also metacognition in which through metacognitive control, the students could better apply their cognitive resources. So, it can be stated that when the students use their metacognition in writing, their spiritual intelligence is higher.

Besides, the WBL could improve the spiritual intelligence because it integrated a number of suggestion such as direct verbal, indirect verbal, direct nonverbal and indirect nonverbal (Santoso, 2007). These suggestive aspects gave dominant contribution to increase the students' spiritual intelligence in writing.

Direct verbal is indicated by presenting the theory of writing. The students as teachers in the WBL classroom explained the theory of writing verbally with the help of the lecturer when the lesson was not clearly delivered by them.

Indirect verbal was shown by making mind map of the theory on the cardboard. It was as the summary of several pages which was put in one page with short phrases not in sentences.

Direct nonverbal was seen from the performance of the students as teachers in teaching the lesson to other students. Each student has his or her own style in teaching the lesson. By doing this, the lesson was explained together and made it easy to remember because the students could memorize a small portion of the lesson. In other words, the students' mimicks or their body language could help other students to recall the lesson.

Indirect nonverbal was shown by the situation of the classroom where the students' role was bigger to carry out the learning process while the lecturer was as a facilitator. The climate of the classroom such as hot, cold or moderate also influenced the writing learning process. These suggestive aspects in learning writing gave much influence to increase the students' spiritual intelligence.

## 6. Conclusion

The main purpose of this research was to investigate how the whole brain learning can improve the students' spiritual intelligence in English Writing. The findings show that the Whole Brain Learning method can improve



the students' spiritual intelligence in English writing. Quantitatively, the spiritual intelligence improved from 70% in the preliminary study to 70.52% in the first cycle, and 72% in the second cycle, as well as 76% in the third cycle. Qualitatively, the students were easy to understand the lesson, having good motivation, more peaceful, better interest, no stress in learning, more joyful, preventing not coming late, and more aware to write.

Based on the conclusion, the researcher recommends the use of Whole Brain Learning to improve the students' spiritual intelligence in English writing and do further study/research on using Whole Brain Learning to large number of subjects and also to the other skills.

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