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Developing Attitudes towards Human Rights through Socioscientific Issues in Science Courses: An Action Research

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Developing Attitudes towards Human Rights through Socioscientific Issues in Science Courses: An Action Research¹

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Abstract

This study, aiming at developing attitudes towards human rights through socioscientific issues in science courses, was designed as an action research. The study covers 28-week implementation on 26 8th grade students. Data were collected through printed documents, human rights attitude scale, unstructured observation, and teacher and student diaries. Qualitative data of the study were analyzed via content analysis. Statistical analysis was carried out for the change in human rights attitude scale scores. Study findings indicated that students developed understanding and attitude towards many human rights within the scope of first, second and third generation rights in science courses through practices based on socioscientific issues. Human rights attitude scale scores increased at a significant rate as well. Moreover, it was also stated that problems of meaning-making, suggesting ideas which do not comply with human rights and insisting were encountered.

Keywords: science education, socioscientific issues, human rights education, action research, curriculum and instruction



Desarrollo de Actitudes en Derechos Humanos vía Cuestiones Sociocientíficas en Ciencias: Una Investigación Acción

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Resumen

Este estudio, con el objetivo de desarrollar actitudes hacia los derechos humanos a través de temas sociocientíficos en los cursos de ciencias, fue diseñado como una investigación-acción. Él cubre la implementación de 28 semanas con 26 estudiantes de octavo grado. Los datos fueron recolectados a través de documentos impresos, escala de actitud de derechos humanos, observación no estructurada y diarios de maestros y estudiantes. Los datos cualitativos se analizaron mediante análisis de contenido. El análisis estadístico se fijó en las puntuaciones de escala de actitud de derechos humanos. Los resultados indicaron que los estudiantes desarrollaron comprensión y actitud hacia muchos derechos humanos dentro del alcance de los derechos de primera, segunda y tercera generación en cursos de ciencias a través de prácticas basadas en temas sociocientíficos. Las puntuaciones de escala de actitud de derechos humanos también aumentaron a una tasa significativa. Además, se encontró problemas de creación de significado, que sugieren el no cumplimiento de los derechos humanos.

Palabras clave: educación científica, temas sociocientíficos, educación en derechos humanos, investigación-acción, currículo e instrucción



Human rights (HR) are defined as justice and equality principles which are considered general (Sajan, 2010) or global rights stemming from the very existence of humans in relation to equality (Flowers, Bernbaum, Rudelius-Paimer & Tolman, 2000). The inherent nature stemming from the self-esteem and dignity a person has (Donnelly, 2013), universality, equality for all (not discriminating people) can be considered as the characteristics of these rights (Praveen, 2007). Human rights education covers activities and practices to develop knowledge, skills, understanding, attitude and awareness which are necessary for promoting, preserving and advocating fundamental rights and freedoms in order to create a universal HR culture (CoE, 2010 cited in Waldron, Kavanagh, Kavanagh, Maunsell, Oberman, O'Reilly, Pike, Prunty, & Ruane, 2011). HR education can be carried out in the forms of informal, formal and non-formal education (Brander, Keen, & Lemineur 2002). The formal HR education process, which is carried out in education institutions, starts with early childhood education and goes on to university education covering teacher training practices (Banks, 2002). HR education in formal education can be given as a separate course or through connections in various courses. Considering that developments in science and technology have influence on fundamental rights and freedoms and they should be dwelled on with much attention, one of the courses which can be linked to HR education is science course (Brown, 1981). Developments in science and technology covers social, moral and ethical values and are related to political and human values as well. Science education is an opportunity for students to realize the connection between science and social problems, their own responsibilities and the possibility of using scientific information for social justice and HR. In this sense, it is possible to say that HR education can be given within science courses (Jennings & Eichinger, 1999). Problems which occur depending on developments in science and technology can be considered as an important context in science courses (Jennings & Eichinger, 1999; Rundgren, 2011). Social dilemmas and arguments having ethics and moral meanings in their cores and emerging due to science and technology products and processes refer to SSI (Sadler & Zeidler, 2005a). Bioethics, nuclear power plants, global warming, alternative energy sources, animal experimentation or testing can be given

as examples to SSI (Sadler, 2004). SSI describe political, moral and social aspects of science and technology based situations (Sadler & Ziedler, 2004). Global warming, human genome project, cloning and many other SSI are controversial issues in terms of HR as well (Clarke, 2010; Rademacher, 2010). These issues are also mentioned in international documents such as Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine (Council of Europe, 1997) and Charter of Human Rights of the European Union (2000, cited in, Brander et al., 2002) within the context of fundamental rights and freedoms. Relevant literature indicates that recently HR have been explored within these contexts which are considered as SSI. These studies dwell on developments in biotechnology (Hornosty, 2011; Sweet & Masciulli, 2011), global warming and climate change (Clarke, 2010; Moro, 2002; Rademacher, 2010), debates regarding the use of nuclear power (Benz, 2013; Ramamurthy, 2011) and their influence on HR and equality in global terms. Considering literature findings regarding science and HR education, the accessible sources are limited and there was no study focusing on developing attitudes towards HR through SSI in science education. In addition, understanding HR is vital for democratic societies (D'sa, 2004). Preservation of these rights is possible by educating individuals who understand and value HR (Flowers et al., 2000). In this sense, it is important to conduct studies for developing attitude and understanding towards HR. The influence of science and technology on HR makes the context of science and technology an essential part of these studies (Brown, 1981; Jennings & Eichinger, 1999). In order to make students acquire knowledge and attitude towards violation of rights which were experienced or might occur due to developments in science and technology, SSI provides the necessary context. In accordance with the aforementioned reasons, this study dwells on the below questions:

How attitudes can be developed in 8th grade middle school students through SSI within the scope of science courses? What are the problems that might be encountered during the implementation? How can these problems be handled?

Method

Research Model

This study, aiming at an in-depth analysis of how can attitudes towards HR be developed through SSI in science courses, was designed as an action research. The purpose of action research is to develop an action by understanding its quality and define a possible problem and solutions in schools or classrooms (Johnson, 2005). This study deals with a group of students who experience a lack of understanding and attitude towards HR. These students have limited knowledge of HR (the number of rights they know is also very limited) and they do not know what some of these really mean. At the same time, their awareness regarding the importance of HR is also quite low. In addition, they have difficulties in grasping the effects of advancements in science and technology on HR and they tend to put forth ideas that are not in accordance with HR (see assessment studies). The teacher and the researcher adopted an impressionistic approach covering constant planning, practice and evaluation in order to solve this problem.

Sample Group of the Research

This study covers 26 8th grade students in total. 14 were females and 12 were males. These students had difficulty in developing an understanding and attitude towards HR. Academic achievement scores of these students for science course ranged from 39.90 to 99.50. The practitioner teacher had 7 years of experience and was willing to participate in the study by stating that s/he had been experiencing this problem with his/her students. The school, in which the study was carried out, is located in central district of the province. The school also has got physical facilities such as computer laboratory in order to enable students to conduct research.

Studies which were Carried out During the Research

Assessment studies.

A two-phase process was adopted for assessment studies. The first phase involves a 3-month period of observation during which students' attitudes and understanding in relation to HR were observed. Observations indicated that students could not make explanations regarding the importance of fundamental rights and freedoms. Moreover, it was seen that they are of the opinion that environmental protection and sustainable development cannot be considered as HR. Furthermore, in relation to organ donation, they suggested that if people are in need of money, they should have the right to sell their kidneys, which does not comply with HR. Majority of students were observed to express only freedoms concerning HR. Second phase involves analyses on attitude scores of students regarding HR.

Forming an expert group

An expert group consisting 14 experts from various fields such as democracy and HR education, SSI, curriculum development, law and nuclear power as well as biology depending on the content of the activities was formed to consult while planning the activities and for validity studies.

Forming validity committee

A validity committee was formed for the study to consult for practices and data analyses. Validity committee includes a science teacher, an expert of HR and a person from expert group depending on the subject. The basic criteria when forming the validity committee was that all three members should be experts in the field. In addition, the science teacher member of the committee should have knowledge of socio-scientific topics in addition to attitude and qualitative research knowledge and that the other member who is the HR education member should have knowledge on attitude and qualitative research knowledge.

Preparing action plan

Action plan was prepared in accordance with assessment studies, literature findings and expert views. SSI which were associated with HR in literature were detected and each unit of science course for 8th grades was analyzed accordingly. Therefore, acquisitions associated with which HR in which unit within which SSI were identified. Validity of the connections built in the program was assessed by experts.

In order prepare activity plans, relevant literature was reviewed for the teaching methods and techniques used for HR education. In this sense, activity plans and projects were prepared based on socioscientific dilemma scenarios, media reports, scientific journals, cooperative learning based on real legal reports regarding HR as well as role-play. Moreover, studies were conducted to sequence the rights based on their degrees of importance when different rights face off against each other. Three dilemma scenarios used in the activities were taken from the relevant literature (Koker, 1996, cited in Ratcliffe & Grace, 2003; Sadler & Zeidler, 2005b; Sürmeli, 2010). Other dilemma scenarios, media report analysis and activities during which legal processes were acted out were developed by the researchers. Expert views were taken for prepared activities. Pilot study was conducted and its functionality was tested. New activities were added to action plan during the implementation depending on the needs. Action plan activities and relevant HR are given Table 1.

Table 1.
 Action Plan Activities and Relevant Human Rights

A1: Introduction to the program, its purpose and scope Introduction to fundamental rights and freedoms	A9: Research project Human Rights Dimension Additional Activity Sustainable development	A17: Base Stations-1 Property right, right to communication
A2:Ordering male child, Ban on discrimination, gender discrimination, right to live -I (embryo’s right to live)	A10:Wind power plants (Media report analysis) Right to environmental protection, Sustainable development	A18: Base Stations: We are claiming our rights Property right, right to peaceful enjoyment of property, spiritual and physical right to privacy, right to public welfare and communication (*)

Table 1. cont.

Action Plan Activities and Relevant Human Rights

A3: Job application, Personal data protection, freedom of vocational choice and right to employment, wrongful dismissal protection	A11: Pesticides-Use of Methyl Bromide Right to environmental protection right to live healthily, sustainable development, right to food	A19: Steam power plants-1 Right to environmental protection, right to live healthily, limitations in fundamental rights and freedoms due to public welfare, right to a fair trial (*)
A4: A new step in obtaining health insurance, Right to medical care, personal data protection, right to live healthily	A12: Potable water therapy Right to live, right to live healthily (Comparison)	A21: Global warming-1 Right to live, right to environmental protection, right to housing and property, right to food and clear water, right to peace
A5: A genetic invention, perfect humans Human dignity, ban on discrimination, spiritual and physical right to privacy	A13: Water pollution: Cleaners in the water Right to clean water, sustainable development (for water)	A22: Climate refugees Right to peace, right to live, right to environmental protection, right to housing and property, right to food and clear water (*)
A6: Cloning a dead child spiritual and physical right to privacy, human dignity	A14: Acid rains Right to environment	A23: What are the benefits of recycling? Right to sustainable development (Sustainable economy) (*)
A7: Products with GDO Right to food, food security, right to live healthily	A15: Chernobyl accident research project Right to live, right to environmental protection, freedom of press (Freedom of information)	
A8: Hydroelectric Power Plants-1 Right to housing, right to food, right to environmental protection, sustainable development, respect for common heritage of humanity, property right (*)	A16: Nuclear power plants Right to live, right to environmental protection, right to live healthily – Context of public welfare	

(*) Activities that go on for 2 weeks

Implementation process

Implementation of action plan lasted for 28 weeks. Students were informed each week before the implementation about the activity that was going to be carried out. Thus, students had the opportunity to make researches and collect the relevant information. Moreover, counseling studies were conducted to inform students about how to access reliable sources and information. The researcher recorded the process as the participant observer. Preparation with the teacher, evaluation and problem-solving oriented studies were conducted during the practices.

Data Collection Tools

Written Documents Regarding HR

Documents on activities and projects

Activity documents and project reports of the students were collected as data source each week at the end of the application. These documents were used for acquiring knowledge on the attitudes of all students regarding HR and the development of their understanding along with the determination of the problems they experienced during the development period. In addition, these documents were presented to different researchers during the application period for preventing bias and they were also used as data source for validity studies. Throughout the application, the students were first asked to answer the activity documents prior to the verbal discussion process and the activity documents were collected following the application and were compiled into a data set for analysis.

Teacher and student diaries

The teacher diary was used for being able to see the application process and the problems experienced from the perspective of the teacher and for acquiring information regarding the regulations to be made. Student diaries were used for reflecting the thoughts and emotions of students towards the

applications and for them to record what they learned and the difficulties they faced throughout the process. Thus, the application process was evaluated from the perspective of the students, data diversification and confirming information was acquired.

Human rights attitude scale (HRAS)

Human Rights Attitude Scale (HRAS) was developed in the study and used to reveal the change in attitudes towards HR. A literature review (Atolagbe & Otubanjo, 1984; Diaz-Veizades, Widaman, Little, & Gibbs, 1995; Kehoe & Echols, 1980; Moghaddam & Vuksanovic, 1990), Universal Declaration of Human Rights (cited in Brander et al., 2002), European Convention on Human Rights (cited in Brander et al., 2002), CHRB (1997), International Covenant on Economic, Social and Cultural Rights (cited in McChesney, 2000) was conducted to create an item pool in order to develop HRAS. A draft form was prepared containing 67 items based on these theoretical frameworks. The form was submitted to the evaluation of two expert lawyers and eight faculty members for content validity. Afterwards, the pilot study was conducted and exploratory factor analysis (EFA) was carried out based on data covering (614) six hundred and fourteen 8th grade middle school students. After examination, seven items were excluded from the scale and the analysis was repeated. As a result of repeated EFA, it was seen that the scale has three construct which are “Positive attitude towards HR”, “Negative attitudes towards HR” and “Government role in attitudes towards HR” Factor loads of items range from .44 to .82. Total score correlations range from .35 to .81. Cronbach Alpha internal consistency coefficients of the sub-scales of HRAS were 95.74, 89.94, 77.34. These three sub-factors explain 46.98% of the total variance. Cronbach Alpha internal consistency of the entire scale is 96.65.

Camera Records for Application Process (Unstructured observation data).

Verbal and non-verbal data regarding implementation process were recorded completely by using camera records. These data were used for

providing information on the development of attitude and understanding towards HR and for detecting the problems experienced. Moreover, these records were provided for the analysis of different researchers during the implementation process which prevented bias and was used as data source for validity studies.

Data Collection

In the study, data were collected for 28 weeks which were carried out for two classes in six weeks and a class hour in 22 weeks. HRAS was implemented five times in total with one before the implementation and the other after the implementation.

Data Analysis

Qualitative data Analysis of Attitude Development Regarding HR

Analyses were carried out for qualitative data during and after the completion of implementation. Camera records and activity sheets were transformed into written documents during the implementation process and a set of data was created. Set of data was analyzed through content analysis. In this process, rights regarding SSI were identified and relevant connection codes were created. Second phase involves whether attitude development regarding these rights took place directly or through inferences based on the meanings. These results constituted the data to detect development in attitude and understanding and to plan the next step. A sample data quotation from the analysis is given in Table 2.

Table 2.
*Sample Quotation from the Analysis Regarding Implementation Process
Concerning Attitudes Towards Human Rights*

Stu. No.	Human rights connection codes	Sample quotation from human rights connection codes and attitude development
S14	The right to privacy, freedom of vocational choice and right to employment, right to live healthily, genetics based discrimination (+) Positive development. Activity name: A new Step in Obtaining Health Insurance	...Since these are personal details, it will be violation of <u>right to privacy</u> if they are passed on to other people without our consent ... When these details are used by the employer and insurance companies, there will be <u>discrimination</u> because we will pay different premiums. What will those people who cannot pay do? They will not be treated because they cannot afford. The <u>right to live healthily</u> will be dispossessed from us... if they are used while being employed, it will pose a threat to our <u>vocational freedom and right to employment</u> ... <u>These rights should be advocated because they prevent us from being treated unfairly and ensure living a better life...</u>

After the process was completed, collected data were analyzed once again. In this process, connection codes were created again with the rights that led to development in understanding and attitude towards HR. The connections between these codes were analyzed again. In this sense, the rights that led to development in attitude and understanding were categorized under three groups which are first, second and third generation rights. This categorization is consistent with literature. A sample is given in Figure 1 explaining how this analysis process functioned.

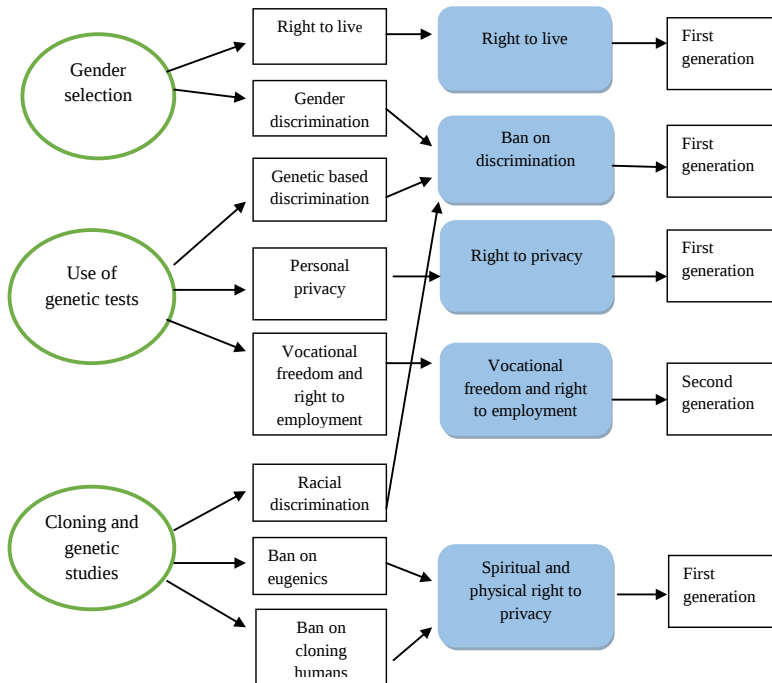


Figure1. A sample scheme of the attitude analysis process regarding human rights after the implementation.

Quantitative data analysis regarding attitude development towards HR. Quantitative data regarding HR were collected via HRAS. HRAS scores were statistically analyzed using Friedman test and Wilcoxon signed-rank test. These quantitative data were evaluated at a significance level of $p < .05$ using a statistics program.

Data analysis of the problems encountered in development of attitude towards HR. The basic principle of action researches is to detect and solve the problem encountered during the implementation process at the exact time and place it occurs (Best & Kahn, 2006). In this sense, another analysis was conducted on the data to detect the problems encountered during the implementation. This analysis process was conducted in two

phases one of which was during the implementation process and the other was after the completion of the process. Set of data which was created on a weekly basis during the implementation was analyzed through content analysis. In this sense, the detected problems formed the data source of the next phase. After the completion of the implementation process, content analysis was conducted once again over the sets of data for the problems. The problems, were created through content analysis. They were categorized under two groups.

Reliability and Validity Studies During the Research Process

Studies were conducted to ensure reliability and validity during the research process (Daymon & Holloway, 2003; Lincoln & Guba, 1985; Johnson, 2005). Data variation was carried out in the study. Long interaction was ensured and the process was recorded through a camera in order to prevent data loss. Study group was defined in detail so as to ensure transferability. Study results and evidences regarding the deductions are presented clearly to enable comprehension by others. Validity meetings were held during the implementation during which camera records, other records regarding data, data analyses and interpretations were presented to expert review. The researcher questioned his/her role and whether s/he was biased or not. Data set was presented to the review of a human rights expert to calculate encoder reliability (Miles & Huberman, 1994). The lowest encoder reliability regarding weekly evaluations concerning human rights attitude development was found 91% whereas encoder reliability at the end of the process was found 94%. The controversial codes were discussed with experts and a compromise was achieved regarding them.

Findings

Quantitative Data Regarding HR Attitude Development

In order to reveal whether there was a difference in students' scores of HR attitudes, HRAS was implemented five times. In order to see whether HRAS scores showed a significant difference, Friedman Test, which is the

non-parametric counterpart of one-factor Anova (repeated measurements), was conducted as the assumption of homogeneity of variance was not fulfilled. Friedman test results indicated a significance difference between first, second, third, fourth and fifth measurement scores (Asymp. Sig: .00 < .05). Wilcoxon signed-rank test was conducted for determining between which measurements a significant difference exists. Wilcoxon signed-rank test results indicated significant difference between HRAS first and second measurement (z: 4.45, $p < .05$), second and third measurements (z: 4.45, $p < .05$), third and fourth measurements (z: 4.45, $p < .05$), and fourth and fifth measurements (z: 4.45, $p < .05$). Considering rank means and total of difference scores, it was seen that the difference is on behalf of positive ranks. In other words, the difference between first and second measurement is on behalf of second measurement, the difference between second and third measurement is on behalf of third measurement, the difference between third and fourth measurement is on behalf of fourth measurement and the difference between fourth and fifth measurement is on behalf of fifth measurement. Based on these results, it is possible to assert that there is a positive change in attitude scores regarding HR.

Qualitative Data Regarding HR Attitude Development

Findings regarding the development of first generation rights (Personal and political rights)

The study findings indicated that students developed attitudes and understanding towards many first generation rights.

The activities for attitude development towards human dignity aimed at adopting the view that all humans are equal in terms of dignity and no one should be subjected to humiliation and offensive treatment. In this sense, connections were established between a genetic discovery and perfect humans as well as cloning. Ban on genetic experimentation on humans was evaluated by human dignity during these activities. Initially, it was seen that some of the students were of the opinion that such studies could be conducted if people were going to be more intelligent and talented. It was clear that students did not consider the possible negative outcomes and

therefore could not make a proper evaluation by human dignity. An environment where they could discuss opposing ideas were created to make them engage in such an evaluation. Thus, they were made to think over and performed multi-dimensional evaluations.

Written feedbacks received after the implementation confirmed that there was a change in the attitude and understanding. Moreover, students expressed similar ideas in cloning activities which was considered as another indicator of positive attitude acquisition for human dignity.

A connection was tried to be established through embryo's right to live with practices regarding gender selection for the process of acquiring attitude and understanding towards the right to live, a regional connection was tried to be achieved through Chernobyl accident and a universal connection was tried to be achieved including the future generations through global warming. The first connection of this process was established through embryo's right to live. During this activity, it was observed that some of the students were advocating that parents may end the life of the unborn child (embryo) to make a gender selection. This view was rather supported by male students and for having a son. The discussion environment was effective for students to re-evaluate the previous ideas and change them. Students adopted the idea that embryo's life should not be put to an end due to gender selection. Second connection for the right to live was achieved through Chernobyl accident. Students stated that many people's rights to live were violated due to the radiation including the children to be born in the region indirectly. However, it was seen that some of the students claimed that the problem is not the business of others but only the country where it takes place. This finding indicated that universal attitude towards the protection of the right to live was not achieved in all the students. The program needed to be re-organized since universal attitude was not achieved in all the students. Therefore, one of the rights which were emphasized in the global warming activity was the right to live. At the end of this activity, it was seen that students made explanations highlighting the importance of protecting the right to live for all the people around the world as well as next generations.

The right regarding ban on discrimination was handled in three contexts which are gender discrimination, genetic based discrimination and racism.

In this sense, activities based on gender discrimination, genetic based discrimination through use of genetic tests and racism through eugenics were organized. Through these activities, student ideas regarding master race or a gender, practicability of genetic based discrimination, conducting genetic studies to make a race stronger were tried to be changed.

In the first phase of the gender selection activity, it was seen that some of the students agree with the idea of gender discrimination with particular preference of sons. In order to make students evaluate the situation multi-dimensionally, they were made to discuss with each other. Moreover, it is possible to say that students developed an awareness regarding the fact that it is illegal to use medically supported impregnation techniques for gender selection and the practices concerning gender selection were banned within the scope of convention on genetics and biomedicine.

The activities were aimed at creating the idea that any type of discriminatory practices and eugenics were prohibited due to genetic inheritance within the context of genetic-based discrimination and racism. One of the activities carried out in this process was the discussions over conducting genetic practices to produce perfect humans. At the beginning of the discussion, majority of students stated that this practice is an advancement in science and technology leading to economic growth and necessary to be racially superior. Therefore, they did not deem it as a threat initially. Discussion process was observed to have a positive effect on change of such ideas. A sample dialogue from the discussion process is as follows:

-Teacher, I think it should be practiced. I do not think it would have a negative influence on our rights. We would be a stronger country since we would invent it...Other countries would beware of us...(S8)-Do you agree with your friend?

-I do not agree teacher; it is a one sided aspect. We could be those people. Would we be slaves then...No race or nation should engage in such a thing...?(S13)

-I do not agree neither, teacher. Just because they do not have the technology, do underdeveloped countries have to be our slaves...(S11)

After the implementation, it is possible to say that students generated ideas covering all humanity regarding the ban on racism. For genetic-based

discrimination, a connection regarding the use of genetic test for employment as well as health insurance was established. Therefore, understanding and attitude towards genetic-based discrimination and what kind of outcomes it will yield to were tried to be developed based on real event.

Spiritual and physical privacy of the person was first examined within the context of eugenics and human cloning in genetics unit. In addition, this right was mentioned once again during the activities regarding base stations and thermal power plants. Students were provided with the experiences which they may encounter in their daily lives. Within the context of cloning and eugenics, it was observed that students made connections based on concepts of personality, identity and kindred and social acceptance regarding spiritual privacy. As for the physical privacy, they made connections based on possible vital risks and health problems. This situation can be exemplified with the following quotation: “Think of the cloned sheep, it died. It may be ill or disabled when it was born. We may lead to illness in that living being’s body before it was born...It has no identity, an ambiguous existence...who is the mother and father...the right to spiritual and physical privacy will be under threat...” (S20). Connections were also established between the right to spiritual and physical privacy and the use of eugenics and genetic tests. Moreover, it was seen that explanations emphasizing the importance of the right were made.

An attitude and understanding towards expecting privacy for the details of people’s health was tried to be achieved within the context of right to privacy and personal data protection. In this sense, connections were established between the use of genetic tests and employment as well as health insurance. The use of genetic tests was dealt with its influence on the revelation of genetic information, right to employment, right to live healthily, wrongful dismissal protection and right to health care. Thus, the aim was to make people realize that other rights will be influenced if this right is not protected. During the implementation, it was seen that students were able to explain the importance of the rights and which and how rights can be influenced by them through the research they conducted. However, it was revealed that some of the students did not deem legal regulations necessary for the use of genetic tests and their results. Therefore, this right

was examined once again during the process of obtaining health insurance. When students were asked about the necessity of legal regulations, it was seen that they supported such regulations this time. At the end of the activity, students were informed that it is forbidden in CHRB (1997) to reveal genetic information of people. Thus, this situation is under protection via international agreements which highlights its importance.

In relation to right to property, the aim was to achieve understanding and attitude towards the content of the right, its importance and necessity as well as how one can benefit from this right. The activity about hydroelectric power plants was dealt with the right to property along with arrangements regarding public welfare. The activity about base stations tried to engrain the idea of utilizing the property in peace within the context of right to property. Therefore, connections were made about what right to property refers to, what it covers and under which conditions it can be restricted. At the end of the implementation, it was seen that students acquired an understanding towards the right to property and its importance as well as an awareness regarding the freedoms and restrictions that accompany the right to property.

An understanding and attitude towards freedom of press and information was tried to be achieved within the scope of freedom of speech. Through Chernobyl accident, students conducted research and tried to express the importance of being informed and freedom of press as a result of their studies. Relevant explanations are as follows:

When Chernobyl accident took place, initially people were not informed. Many people were harmed due to this prevention...This situation indicates the vitality of this right... (S26)

Right to information: It was prevented due to restrictions on the press. Prevention of this right led to prevention of the right to live and live healthily for many people... (Team Colorful)

These explanations indicate that students developed an awareness regarding the freedom of communication. The second connection regarding this right was established during the activity regarding base stations. The activity involved acting a legal process regarding base stations. During this activity, studies were conducted for prioritization and ordering according to importance between rights to communication, spiritual and physical right to

privacy and right to property. In this activity, students advocated arguments claiming that right to communication is a fundamental right and base stations are necessary for this right. Moreover, in one of the trials, which took place during the activity, a decision was made based on the importance of the right to communication and on behalf of base stations. The decision is as follows:

No precise information was obtained regarding the negative influence of signals omitted from the base stations on human health. In addition, right to communication is one of the fundamental rights of humans which of great importance. It is vital when natural disasters such as earthquakes take place. Therefore, the demand to remove the base stations was overruled (Group 2).

This decision is a remarkable indicator of the importance of right to communication.

The last right, towards which understanding and attitude development was aimed, was the right to fair trial. The connection was established over the steam power plants. It was seen after this activity that an awareness regarding the right to fair trial was raised.

Findings regarding the development of second generation rights (Social, economic and cultural rights)

The study findings indicated that students developed attitudes and understanding towards many second generation rights.

In the study, connections were established with genetics unit for right to live healthily and the right to health care. To this end, the influence of increasing insurance premiums when the person is prone to a genetic type of disease or cancer, which is revealed through genetic tests, was examined. Thus, an awareness and attitude acquisition were aimed to protect these rights. Connections were established with genetic unit for right to employment, vocational freedom and wrongful dismissal protection. At the beginning of the implementation, some of the students stated that employer can use these genetic tests during the employment process which will not have a negative influence on the aforementioned rights. However, it was seen that discussion process had a positive influence on such ideas of the

students. During this process, it was highlighted that employers do not want to hire qualified people so as to abstain from paying much premium and many countries including Britain enacted laws preventing employers from using such tests. Afterwards, the discussions dwelled on why it is important to protect such rights. Oral dialogues during the implementation and written feedbacks received from the students supported positive attitude development.

The program also aimed at developing attitude towards an adequate standard of living which covers adequate food, clean water and food security rights. The activity about GDO foods aimed at making evaluations about supplying adequate food (nutrition) and food security. Some of the students stated that using GDO foods can be supported in order to ensure adequate food supply during the activity. One of the students explained situation with the following words: "...Many people die of starvation in places like Africa. If GDO foods are used, they will be supplied with foods as well...their right will be under protection..." (S13).Some of the students made explanations emphasizing the food security to ban GDO foods.

Students were told that what they expressed was about "food security right". A discussion environment was created to discuss whether this right was important or not. Within the program, connections were made between pesticides-the use of methyl bromide as well as global warming activities and the right to food. Some of the students defended the use of pesticides to supply adequate food during the activity about pesticides-the use of methyl bromide while the other group made defenses based on right to environmental protection and right to live healthily. Global warming activity aimed at developing an understanding and attitude which is universal and cover future generations in terms of right to food.

Connections were established in water pollution and cleaning products activity within the scope of right to an adequate standard of living. This activity aimed at making students acquire an understanding and attitude towards the importance of benefiting from water in a sustainable way and accessing clear water is a right to be protected for everyone around the world as well as future generations. It was observed at the beginning of the activity that some of the students claimed that if people do not have

problem of water scarcity, they can benefit from it in every way they want. It was observed at the end of the process that student ideas changed.

Connections regarding the right to housing were established through HPPs and global warming activities. The first connection in this process was carried out to raise awareness about the right to housing and its importance. The activity involved efforts to develop an understanding and attitude towards the right to housing based on the problems experienced by local people living in those regions. The aim of global warming and climate change activities was to make students acquire a universal understanding and attitude towards the right to housing. In this process, the effects of global warming on this right were discussed within the context of all people and future generations. At the end of the discussion, it was seen that students developed universal ideas regarding the right.

Findings regarding the development of the third generation rights (Solidarity/Collective rights)

The study findings indicated that students developed attitudes and understanding towards many third generation rights.

For the right to environmental protection, connections were established through renewable and non-renewable energy sources, global warming and pesticides-use of methyl bromide. Firstly, the activity regarding hydroelectric power plants had a connection with the right to environmental protection. One other right which was connected by students through this activity was right to environmental protection. One of the students stated the following words regarding the situation: "...it is also about environmental rights. Being environment-friendly and clean indicates that it supports the right to environmental protection..."(S14). Another right which was connected to global warming activity was the right to environmental protection. In this process, students were made to think over global warming and its effects as a whole. It was seen that students developed understanding and attitude towards the importance and the necessity of the right to environmental protection both at present and in the future for the world and the people. For Chernobyl accident activity, students conducted research in groups. One of the rights which they

connected the activity was the right to environmental protection. Within this activity, students were asked to answer the following questions in their studies.

What kind of problems do you think people encountered most after Chernobyl accident? Is it possible to connect these problems with HR? How?

If the problems resulted from this accident are connected to HR, which rights will be affected? Why?

Students were asked to schematize the results they derived from their projects. A sample scheme produced as a result of the implementation is given in Figure 2.

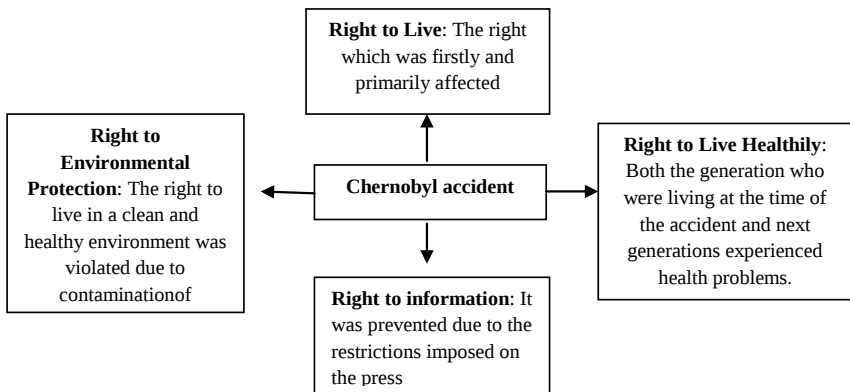


Figure 2. Chernobyl accident human rights scheme (Group 2).

Connections were established with the right to environmental protection while discussing the use of pesticides and recycling. Moreover, the importance of keeping the nature as a habitable place for future generations was dealt with in different contexts. Furthermore, an activity was carried out regarding steam power plants in order to demonstrate what kind of problems may occur when this right is violated and to make students aware of the fact that it is both the duty of the government as a part of constitutions and the people to protect this right. In this activity, a legal

process from Yatağan Steam Power Plant to European court of HR, after addressing the administrative court, was acted by students through role-play. Based on the feedbacks received after the implementation, it was seen that students developed positive attitudes towards the aforementioned situations. One of the students recorded this issue to his/her diary:

We dwelt on the right to environmental protection again with today's activity. What was different is that we also learnt what are our duties to protect this right. We have never proceeded to court of HR before. This time we proceeded. We learnt that our right to fair trial is under protection... (S13).

For the right to sustainable development, the first connection was established through HPPs. In this process, some of the students had problems in meaning-making in relation to this right. Therefore, they conducted research-based studies in groups regarding sustainable development. In order to develop an understanding in relation to sustainable development comprehensively, connections were established through activities dealing with global warming, cleaners in the water, recycling and processed energy sources within the scope of the program. Thus, understanding and attitude were tried to be developed regarding what should be done concerning sustainable environment for sustainable development, sustainability for water which is common heritage of humanity, and sustainable energy which is important for sustainable economy.

Another right towards which attitude development was aimed was the right to respect for common assets (heritage) of humanity in the study. Firstly, during an activity about HPPs, some of the students conducted a study and expressed that another one of the violation of HR caused by HPPs is the right to respect for common heritage of humanity based on the data presented in United Nations Covenant on Economic, Social, and Cultural Rights. This connection was established by only a few students which became a starting point for other students to raise an awareness regarding this right. Students were informed about this right and through the activities regarding water pollution and environmental problems, connections were established with the abovementioned right in order to make them realize how important it is. The purpose of these connections

was to make students realize that the water, historical and cultural assets, natural resources and environment, which are necessary for people to sustain their lives, constitute the common heritage of humanity and they are of crucial importance.

The first connection in the study about the right to peace was established through global warming activity. During this process, students explained that one of the violations of HR as a result of global warming and climate change will be the right to peace. However, it was seen that this association could not be made by all the students. Therefore, the activity named climate refugees was carried out. In this activity, students acted out two citizens from countries one of which was really affected whereas the other one was less affected by this disaster. The citizens from the country which was really affected by this disaster was trying to deal with the problems of finding food, clean water and housing. It was seen as a result of the activity that refugees were causing trouble to enter the country while other country's people react the same way which was a negative influence on the right to peace. During the activity, students from both groups were asked what they felt and what kind of deductions they made. After the activity, it was seen that students developed understanding towards the importance of the right to peace and it is prerequisite for many rights and freedoms.

Findings regarding the problems encountered during the process of attitude development concerning HR

Findings regarding the problems encountered during the process of attitude development concerning HR are given in Table 3.

Table 3
Findings Regarding the Problems Encountered During the Process of Attitude Development Concerning Human Rights

Meaning-making problems regarding human rights	• The problem of lack of knowledge • The problems of connections - Establishing wrong connections - Not being able to establish connections
The problem of suggesting and insisting on ideas which do not comply with human rights	• Benefit-based sense of human rights • Superiority-based sense of human rights • Individual-national sense of human rights

Considering Table 3, it is seen that meaning-making problems regarding HR involves problems stemming from lack of knowledge and not being able to make connections. The problem of lack of knowledge was one of the most important problems encountered during the program. Students’ lack of knowledge regarding rights, particularly right to environment, sustainable development, respect for common heritage of humanity, which are considered third generation rights, led to difficulties in attitude acquisition process. Additional arrangements were made during the process to overcome such difficulties. Another problem encountered during meaning-making was the problem of connecting. These problems of connecting involve wrong connections or no connections at all. Of these, no connection refers to the state of not being able to establish a connection when a student is asked to make a connection between a given situation and the HR. The explanation made during the activity of ordering a male child, “The system would decay. The males would increase while females would decrease” (S1), can be given as an example. In this case, it is seen that the student makes no other connection. Wrong connection refers to not making accurate connections with the given situation and the discussed arguments. Especially in the first activities, when students were asked to make connections about HR, it was seen that they were trying to make irrelevant connections with the rights to education, vote and stand for election. Corrective feedbacks were given and meetings were held with the teacher to eliminate this problem.

The problem of suggesting and insisting on ideas which do not comply with HR was found to involve benefit-based, superiority-based and individual-national concepts of HR. It was seen that students react normally and support the violations of HR when students had benefit-based sense of HR. As for the superiority-based sense of HR, it was seen that students supported gender-based or race-based discriminations in order to become a stronger country and to keep the family name alive. Individual and national sense of HR became one of the most important problems encountered in attitude development process. Students with such ideas experience problems of developing universal understanding and attitudes towards the protection of HR and the prevention of violating HR. In order to eliminate these problems, arrangements were made during the process. An understanding and attitude development towards the fact that these rights are valid for everyone and they should not be violated under any circumstance was tried to be attained in order to make students acquire a universal sense of HR. Connections were repeated over different activities and experiences were provided until the acquisition gained a universal dimension.

Discussion, Conclusion and Recommendations

Study results indicated that understanding and attitude towards many rights and freedoms within the scope of personal, political, social, economic, cultural, and collective rights were acquired in science course in relation to SSI. Relevant literature indicates that SSI such as global warming and climate change, alternative energy sources, steam power plants, HPPs, nuclear power plants, advancements in bio-technology and genetics have an influence on HR or lead to violation of HR. Considering the fact that violation of HR is the main stimulant for HR education (Misgeld, 1994), it is possible to say that SSI constitute an appropriate context to make students acquire the relevant understanding and attitudes. As a matter of fact, United Nations of the World Programmer for Human Rights Education (United Nations, 2012) highlights the fact that various SSI have influence on HR and they need to be taken into account for HR education. Considering the study results in consistency with the relevant literature, it is

possible to say that SSI can be an appropriate context for HR training in science classes.

On the other hand, study results indicate that a global understanding and positive attitude towards the idea that many rights and freedoms should be protected for all and future generations were developed; and an awareness regarding violation of rights and global problems was raised. When these findings are evaluated within the scope of theoretical information in relation to HR training, it is possible to say that practices serve to realize the objectives of HR training. Within the objectives of United Nations Decade for Human Rights Education (United Nations 1995-2004), the purpose of HR education refers to developing the necessary knowledge, skills and attitude which are needed to create a global HR culture (cited in Banks, 2002). Amnesty International (2002) and UNESCO (2002) underlined the importance of developing respect for HR and freedoms through knowledge and attitude development while referring to the purposes of HR education. Reardon (2010) states that the main purpose of HR education is to educate responsible citizens who are aware of global problems and contribute to respect for HR. Tarrow (1990) also asserts that the main purpose of HR education is to raise awareness regarding the rights and the responsibilities. Shiman (1999) emphasized the fact that HR education should make people acquire a universal understanding for respect about rights and violations whereas Tibbits (1996) underlined the importance of conducting HR education through a global perspective. Various researchers (Flowers et al, 2000; Lister, 1984) supported HR education which shows parallelism with the acquisitions carried out in this study.

It is also possible to evaluate teaching-learning aspect of the study within the literature findings concerning HR education. During the process of developing attitude and understanding towards HR, discussions (small groups or whole class), media report analysis, cooperation based learning, project and role-play methods were employed while dilemma scenarios, real life situations, media reports and legal processes were recorded as well. It is possible to say that the arrangements and the class culture created for teaching-learning process were qualified enough for HR education (Flowers et al, 2000; Ratcliffe & Grace, 2003; Osborne & Ratcliffe, 2002; Amnesty

International, 2002; Brander et al, 2002; Levin-Goldberg, 2008; Lister, 1984)

It was stated in the study that there were certain problems of meaning-making about HR; and suggesting and insisting on ideas which do not comply with HR. Meaning-making problems about HR is a negative reflection of lack of knowledge about HR. The lack of knowledge about HR has a direct influence on ideas about HR (D'sa, 2004); and even some teachers and pre-service teachers experience this problem (Eastman, Martin, Dawe, Gaulart, & Dilon, 1989). Peter D. Hart Research Associates state that when people, who lack knowledge and understanding about HR, are informed, they become eager to learn more and develop positive attitude (cited in Banks, 2002). Suggesting and insisting on ideas which do not comply with HR are indicative of the fact that students develop superiority-based and individual-national sense of HR and insist on them. In this sense, it was seen that some of the students reacted the violation of HR normally and had the tendency to protect the HR not globally but individually or nationally. To Weissberg (1974), even if people support protection of HR, they may deny these rights when they contradict their beliefs and ideas. Considering the role of cultural structure in forming beliefs, values and knowledge (Donnelly, 2013; Herder, 2002), it is possible that cultural structure has an influence on this problem. For instance, in the gender-based discrimination activity, initially discrimination on behalf of sons was supported which may stem from the relevant dominant social belief.

Study results, which are supported by literature results as well, indicated that many fundamental rights and freedoms can be developed in students through SSI in science courses. However, the study results should be evaluated within certain limitations. These results are only valid for the participants of this study and they cannot be generalized. Studies can be conducted with different grades or with larger samples to obtain comprehensive information regarding the situation.

Notes

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Social-Personalized versus Computer-Personalized Methods to Teaching English Learners' Reading Comprehension Ability

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Social-Personalized versus Computer-Personalized Methods to Teaching English Learners' Reading Comprehension Ability

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Abstract

The present study was out to compare new approaches computer assisted language learning, personalized learning program versus traditional approach to teaching second language reading comprehension ability among Iranian English learners. The participants in this study were 90 students who studied at a university of Applied Sciences and Technology in Rasht, Iran. All the participants were randomly assigned into three groups, one control group and two experimental groups. The control group went through a traditional method of teaching reading skill in the classroom. The first experimental group received a personalized learning instruction. The second experimental group went through a personalized learning program supported by a computer assisted language learning system (CALL). At the end of the treatment, a posttest was administrated to three groups to find out the effects of the new instruction. The results of this study revealed that the second experimental group who received treatment through CALL- based personalized learning approach

Keywords: computer-personalized method; English learners; reading comprehension ability; traditional approach



Método Social versus Método Personalizado por Computadora en Comprensión Lectora de Alumnos de Inglés

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Resumen

El presente estudio compara nuevos enfoques de aprendizaje de lenguaje asistido por computadora con el enfoque tradicional de la enseñanza de la comprensión de inglés como segunda lengua entre estudiantes iraníes. Participaron 90 estudiantes de una universidad de Ciencias Aplicadas y Tecnología en Rasht, Irán. Todos los participantes fueron asignados al azar en tres grupos - un grupo de control y dos grupos experimentales. El grupo de control pasó por un método tradicional de enseñanza de habilidad de lectura en el aula. El primer grupo experimental recibió una instrucción de aprendizaje personalizada. El segundo grupo pasó por un programa de aprendizaje personalizado apoyado por un sistema de aprendizaje de lenguaje asistido por computadora (CALL). Al final del tratamiento, un post-test fue administrado a los tres grupos. Los resultados revelaron que el segundo grupo experimental que recibió tratamiento a través del CALL tuvo un mejor desempeño que los otros grupos; se concluyó que el enfoque de aprendizaje personalizado basado en CALL tuvo un efecto marcado positivo en la capacidad de comprensión de lectura de los estudiantes iraníes de nivel intermedio de inglés.

Palabras clave: método personalizado por computadora; aprendizaje de inglés; comprensión lectora; método tradicional

Nontraditional educational institutions have used personalized learning approach since 19th century. Parkhurst (1922) claimed that curriculum can be programmed by each student in order to meet his/her needs, interests and abilities. Parkhurst's plan tried to extend educational focus toward creative activities in order to develop students emotionally and socially and used a program that later became known as programmed instruction.

Keller (1974) created PSI (Personalized System of Instruction) and determined principles that are critical for effective instruction. He believed that students' instruction should be based on their needs. The results of Keller's research showed that the learners who were taught with PSI learned more than those who taught with traditional method. Moreover, most of the learners' favorite way of learning was PSI, not conventional method.

According to the findings of the study conducted by Bloom (1984) students had better achievement when they were taught through individual instructions than the common traditional instruction. Based on Gardener's (1989) theory of multiple intelligences, human beings can learn and process information in a variety of ways but these are independent of each other. The superiority of PSI over conventional methods was demonstrated by Kulik (1991). According to Kulik, students rated PSI and control classes differently. PSI classes are rated as more enjoyable by the students. Also, it has a higher quality than conventional classes and students contribute to the learning more than conventional classes.

In this relation, Rebov and Semb (1991) documented that in many courses such as critical thinking, PSI has been utilized. They also showed that the students who take PSI and similarly designed courses enhance their higher order cognitive abilities. Traditional views of childhood and education in 19th century have been challenged by Dewey (1938). He believed that active engagement of the learners in the learning process could help them to develop connection and personal meaning from the content. As stated by Sharples, Amedillo Sanchez, Milrad, and Vavoula (2009), a great progress can be achieved by the customization of education because it identifies that the ability level of students is different; because they have different background and interests.

More recently, researches who study Computer-Aided Personalized System of Instruction (CAPSI) developed procedures for recognizing higher-level of objectives and included them into PSI courses (Crone-Todd & Pear, 2011).

The current study presents personalized learning as a way for enhancing reading comprehension ability of students through using different strategies and techniques in a reading class and also attempts to make comparison between personalized learning and CALL- based personalized learning program.

Literature Review

Approaches to differentiation more formally were created in the 1960 and 1970, with the introduction of individualized instruction. Although the approach consisted of teaching strategies according to the individual students' needs, in practice students usually worked through prepackaged materials at their own rates. These programs were usually made around the development of basic skills in reading and math. Students were placed into lessons based on pretests and moved on to the next steps when post test scores showed their mastery. Without the direct supervision of a teacher, these lessons were often completed (Weber, 1977). Personalized learning is a 21 century model of differentiated instruction that indicates Tomlinson and Allan's (2000) vision of recognizing each student's readiness, interest, and learning profile through differentiation of content, process, and product. The concept of personalized learning is mainly based on the cognitive and constructivist theories of learning. Cognitive instructional principles emphasize the active involvement of the learners in the learning process and the structure and organization of knowledge, and linking new knowledge to learner's prior cognitive structures. According to Constructivist instructional theory, instructional designers determine which instructional methods and strategies will help learners to actively explore topics and enhance their thinking. Learners are encouraged to develop their own understanding of knowledge. This does not deny the role of practice and feedback, but rather allows learners to develop their knowledge structure.

As Schunk (1978) stated, the above theories are common in some part such as learners have been involved in learning and structuring solutions so that they can get the maximum amount of information. Constructivists such as Piaget and Vygostky suggest that through active participation and by engaging in social interaction more deeply, meaningful learning can be achieved (Palinscar, 1998).

This theory emerged as a result of an extensive study of cognitive development. In constructivist approach to learning, teacher acts as a facilitator or a guide for students. The teacher encourages and motivates students to make their own ideas and conclusions. A number of constructivist principles that have been associated with online learning environments were identified by Boyle (1997). Boyle found that learners can obtain experience with the knowledge construction process through these environments. Also these environments encourage learners to take ownership of their own learning process which results in students' self awareness. These environments provide realistic and relevant contexts for learning. In constructivist approach, students engage in collaborative, reflective, contextualized and intentional learning. These elements mean rich productive learning experiences (Jonassen, 1999). Tapscott (1998) utilized a constructivist view to explore how Net generation learns. He observed how online learning environments create new learning paradigms, which involve a change from:

- linear to hypermedia learning
- instruction to construction and discovery
- teacher-centered to learner-centered approach
- absorbing material to learning how to navigate and how to learn
- one size fits into the customized learning
- the teacher as transmitter to the teacher as facilitator

Day and Bamford (1998) and Siemens (2005) developed connectivism. Connectivism takes into account the complex and organic nature of learning, the need for rapid change of knowledge for the students and increasing the various sources of knowledge. According to connectivism, learning in today's web environment is complex, multifaceted and disorganized and is based on making connections. The unique elements of

connectivism were examined by Chatti, Jarke, and Froschwilke (2007) through looking at the relationship between knowledge and learning. They found that learning is an ongoing network formation process, facilitated by technology. Knowledge is made up of specialized nodes or information sources. A critical skill for today's learners is to see these networks, recognize patterns and make sense between disciplines, ideas and concepts. Personalized learning approach is arranged with interactionist, connectivist and constructivist learning theories. Learners are free in these approaches to freely choose and experience a series of activities and resources. Constructivist approaches generally involve creating opportunities for learners to make their own ideas explicit, share them with others, and subject them to careful examination. In constructivist approach the purpose is to achieve students' engagement and to develop the sense of ownership that is essential to building intellectual independence. When teachers are working alongside students in trying to answer each student's questions, they are cast in the role of learners and this element contributes to learners' self-esteem and intellectual independence.

Child centered approach can incorporate constructivism by influencing teachers towards encouraging learners to explore phenomena and events individually and to design and conduct their own learners to explore phenomena and events individually and to design and conduct their own learning with the minimum of teacher direction. So, personalized system of instruction (PSI) can be consistent with constructivist approach to education by including discovery learning experiences. PSI is consistent with constructivist approach and is a learner centered system that puts the main emphasis on the learner and places the learner in an active role (Buskist, Cush, & DeGrandpre, 1991). Social interactionist theory is an explanation of language development that emphasizes the role of social interaction between the growing child and linguistically knowledgeable adults. It is based largely on the socio-cultural theories of Vygotsky. According to Vygotsky, social interaction plays an important role in the learning process. Vygotsky proposed the zone of proximal development (ZPD) where learners construct the new language through socially mediated interaction. Vygotsky's learning theory is seen as a theoretical basis for providing individualized learning by many proponents of adaptive learning. They

show ZPD and the role of the teacher as a more knowledgeable other (MKO) as key elements of individualized learning environments (Nyikos & Hashimoto, 1997). Social interaction between the learner and the teacher in a specific social context helps the learner to achieve his/her learning potential (Kearsley & Lynch, 1992). Vygotsky believed that there is a gap between the learner's developmental level and the learner's potential level (Vygotsky & Cole, 1978). Active participation within the teaching environment and meaningful interaction with a teacher or other experts bridge this gap (Kearsley & Lynch, 1992). Vygotsky believed that interaction from a MKO is not the only basis for learning. The learner should be actively involved in the learning process and utilize various tools for learning. Learning process is began by receiving instruction from the MKO, then learner becomes active participation in the learning (Attwell, 2010).

The learner takes responsibility to help in the learning process which is an important component of a personalized learning environment. The learner utilizes personalized learning environment as a tool to interact with MKO. The learner and the teacher interact in the environment that involves the physical space, meaningful instruction, student-teacher engagement methodology, student ability, and content. The teacher uses each of these areas to provide meaningful individualized learning environment for each learner (Subban, 2006). According to discovery theory by Bruner (1990), learners learn best when they discover knowledge for themselves. He believes that students keep knowledge best when it is something they have discovered on their own.

Computer Assisted Language Learning (CALL)

The use of computer as part of a language course is described by CALL (Hardisty & Windeat, 1989). CALL seeks the role of information and communication technologies in language learning and teaching. With the effective use of technology, many of the obstacles to implementing personalized instruction can be prevented and stopped. There is a gap between school resources and a personalized learning environment and TEPL (technology enhanced personalized learning) may bridge this gap.

What makes personalizing learning for each student difficult to a teacher is providing enough resources to do the task but the use of computers makes it easy to access a huge number of resources. Also the use of computer helps the instructor to collect and analyze a large amount of student data. The use of TEPL can provide opportunity for all learners to have an access to the same personalized learning techniques that were available to elite students (Tomlinson, Topping, & Allen, 2008). By the help of technology, a wide range of content can be covered in a short length of time and it declines the need to take each step of curriculum by teaching slowest learners in a single, teacher directed way. CALL programs can promote the learning speed, individualized instruction and administration. The use of computers is one of the most efficient ways to make the lessons audio-visual, to support a fluent and effective education, to keep the students away from memorization, to achieve speed and permanence in perception.

The use of computer enables the teacher to track each student's accomplishments and achievement data. This student's data helps the teacher to provide personalized learning experience for each learner by matching the student's accomplishments, learning experience and achievement data to the learning objectives of the course. So in this way, the teacher fits learning to the individual's needs. Computers make abstract and complicated concepts concrete digitally because of their extensive multimedia properties. Computer technologies motivate the learner to learn, increase the learner's control over the content of the materials and make the learner to have an active role in the learning process (Becker, 2000). A variety of activities, pedagogical practices and research are included in CALL. CALL provides useful programs for supporting four language skills (listening, speaking, reading, and writing).

As Cuban (2001) claimed, CALL does not include only its canonical devices such as desktop and laptop. It includes everything that a sort of computer is embedded in it such as PDA (personal digital assistance) mp3 players, mobile phones, DVD players, and electronic whiteboards. Students can utilize different programs which guide them during their learning process by the use of computers. These programs determine learners' mistakes and problems and give them the result of their learning. These programs adapt their pace to the ability level of the students. If the student

answers all the exercises correctly then the learner can go to the next stage of the learning process. Otherwise, more exercises at the same level are presented by the computer to the learner. A large range of multimedia aids such as sound, animation, photograph, references to the dictionaries and glossary is presented by the computer. In the case of reading comprehension, all the mentioned applications function to promote reading comprehension ability of the learners. As Warschauer and Healey (1998) stated, for students that language is abstract, the application of computer makes the language alive. CALL provides student-centered materials for the learners and allows learners to work on their own way. Interactive learning and individualized learning are two important features of such materials. CALL promotes learner's autonomy.

A number of advantages have been identified for the CALL. CALL promotes learner's motivation, experiential learning and learner's achievement. Lots of authentic learning materials, information and resources can be provided by CALL. CALL enhances personalization and learner's autonomy. Greater interaction and global understanding can be achieved through using CALL. The most important advantage of CALL is that all language skills (listening, speaking, reading, and writing) can be integrated into a single activity (Davis, Christodoulou, Seider, and Gardner, 2011). It also enables the learner to take control over his learning process which personalized learning. Learners with lower level of ability can repeat the practices and do additional exercises at the same level and advanced learners can practice higher levels of skill. The work of each student is recorded by the computer and in this way the teacher identifies each student's problem.

Full participation of the learner is needed for the computerized exercises such as a text with questions, a maze or a jumble. So, the learner is active all the time while working with the computer. Sometimes fun factor is provided by the computer in the exercises. The progress of each student is clarified for the teacher on his computer so students have to complete exercises.

There are some disadvantages of CALL. For students who have no prior experience in working with computer, it takes a lot of time to print their responses. They require to be taught how to work with computer. Also,

teachers should be trained how to use the computer. Considerable time and effort are needed to apply CALL program. Feedback is not given to open-ended questions by the computer. Computers are not a suitable means for all the activities that are carried out in the classroom. For example, it is not possible to develop an authentic communication between learners which is an important aim in education.

The aim of the current study is to compare personalized versus traditional approach to teaching L2 learners' reading comprehension ability across gender. Also the researcher focused in the use of computer as one of technologies used in used in personalized learning approach for promoting Iranian English learners' reading comprehension ability. Therefore this study aims to investigate answers to the following questions:

RQ1: Does general personalized learning affect Iranian English learners' reading comprehension ability?

RQ2: Is there any significant difference between the mean scores of Iranian male and female English learners' reading comprehension test as a result of exposure to general personalized learning approach?

RQ3: Does CALL-based personalized learning approach have any effect on Iranian English learners' reading comprehension ability at the intermediate level?

In this relation following hypotheses have been formulated:

H01: General personalized learning does not affect Iranian English learners' reading comprehension ability.

H02: There is no significant difference between the mean scores of Iranian male and female English learners' reading comprehension test as a result of exposure to general personalized learning approach.

H03: CALL-based personalized learning approach does not affect on Iranian English learners' reading comprehension ability at the intermediate level.

Method

Participants

The participants were Iranian male/ female students who studied at the University of Applied Science and Technology in Rasht. They were majoring in architecture and they were in their early twenties. The participant shared the same linguistic and cultural background and their first language was Persian. Oxford placement test (OPT) was administrated to 130 students to obtain a homogenous sample. Then 90 students were selected as intermediate for the purpose of the study. Selected students were divided randomly into three groups: one control and two experimental groups. The instructor was the same all the three groups.

Materials

Oxford placement test (OPT) was administrated to participants in order to determine their language proficiency level. The test was developed by Oxford University Press and has been proved to be highly effective as an initial placement instrument and a reliable means of placing students at all levels. It had two sections. The first section measured grammar, vocabulary and reading proficiency and the second section measured listening proficiency of the students. Regarding the purpose of the present study, first section was adopted. In the placement test, 60 items were presented to the participants. Every item was graded dichotomously: one point for correct answer and zero for an incorrect answer. The criterion for choosing the students on the OPT was one standard deviation above the mean and one standard deviation below the mean.

Longman Introductory Course for the TOEFL Test was used as a pretest and posttest to measure the participants' reading comprehension ability before and after the treatment. The tests were administrated to all the three groups to clarify initial and final differences and similarities in their knowledge of English reading comprehension. The results of the posttest helped the researcher to find out whether general personalized approach and CALL-based personalized approach have a positive effect on L2 learners'

reading comprehension ability and whether there is a difference between males and females as a result of their exposure to the general personalizes approach.

Procedure

This research was done at the University of Applied Science and Technology in Rasht. It is a public university system administrated by Ministry of Science, Research and Technology with various branches all over the provinces of Iran. This university helps to increase skill level of employed personnel in various sectors of economic field and graduates of higher education and professional skills that are lacking in administrative. It is an educational system inspired and derived from 'Community College' in the USA, with more than 1500 education center in all corner of Iran. First, Oxford Placement Test (OPT) was administrated among 130 students in order to obtain a homogeneous sample. Then 90 students were selected as intermediate level for the purpose of the study. Participants were divided randomly into three groups, one control and two experimental groups, each group with 30 students. Longman Introductory Course for the TOFEL Test was administrated as a pretest to ensure that there is no significant difference between three groups in terms of their reading ability. The students in control group received instruction through traditional method and the texts were on the course book. The instructor read the text aloud and explained about the text and clarified synonyms and antonyms for new words during three months, while students in Experimental group 1 received instruction through personalized learning approach and students in Experimental group 2 received instruction through CALL-based personalized learning approach. The three groups followed the same aim and scope of the course and were taught by the same instructor. The level of the texts was the same for all three groups but for experimental groups, the instructor selected different topics according to students' interests, wants and attitudes. The researcher explained all the steps that were carried out in the two experimental groups and a control group as below. The experimental group 1 went through personalized learning program. The researcher made learner profile for each of the students in this group. Information about proficiency level of the

student, the kind of the text that the students was interested in, how the learner learns, learning style of the students, emotional status and health status of the student, family background and finally interest and attitudes of the student were provided in it, which helped the instructor in providing different kinds of the texts that were at the students' level of proficiency and according to their interest and attitudes. Also the researcher gave the students a personal learning goal chart and asked them to complete it. Information provided in this chart was beneficial for both the instructor and the learner; because students understood that their needs and wants were important for the instructor. Also this information helped the instructor to know expectations of the students of the reading class. The researcher employed various strategies and techniques for teaching reading comprehension to the students including:

- 1) Jigsaw reading
- 2) Pairs read and paraphrase
- 3) Predicting from words and pictures
- 4) Summarizing
- 5) Scrambled sentences
- 6) Poster brainstorm

In the second experimental group, the researcher made a learner profile for each of the learners similar to the experimental group one. In this group, each student had a computer and was connected to the internet. The instructor introduced a number of websites for reading comprehension practices to the students.

The name of four websites that were utilized in the classroom are as follows:

- 1) www.comeniues.com/fables
- 2) <http://web2.uvcs.uvic.ca/elc/studyzone/570/pulp/>
- 3) <http://www.cdlponline.org/>
- 4) www.eduweb.com/adventur.html

After the treatment, the experimental group 2 took a posttest on the computer while the control group and the experimental group 1 took the

paper based version. All of posttests were of the same question and answer format.

The control group received the conventional instruction for reading. The class began by a brief explanation about the topic, and then the instructor read the text aloud or asked one of the students to read the text aloud. The meaning of unknown vocabularies, the synonyms and antonyms of them were explained by the instructor. Then the instructor asked the students to say what they understood from the text. After a brief discussion in the class about the content of the text it was translated by the instructor. Finally the instructor asked the students to complete the practices in the book.

Methods of Collecting and Analyzing Data

To analyze the data, the researcher used SPSS using two paired sample t-tests to compare the mean scores and the significant level of the control group and the general experimental group (experimental group 1 + experimental group2) in the pretest and posttest. Also the researcher used independent sample t-test to compare the performances of males and females on post-test as a result of exposure to general personalized learning approach. The researcher used paired sample t-test to compare the performances of the second experimental group in their pre/posttest as a result of exposure to CALL-based personalized program.

Data Analysis and Findings

The first question of the study was "Does general personalized learning affect Iranian English learners' reading comprehension ability?" To answer this question, after scoring and tabulating the scores for each subject, the data of the study were analyzed through SPSS via paired sample t-test. The result showed that general personalized learning had a positive effect on reading ability of EFL learners.

To answer the second question of the study (Is there any significant difference between the mean scores of Iranian male and female English learners' reading comprehension tests as a result of exposure to general personalized approach?), the data were analyzed through SPSS via

independent sample t-test. The results indicated that the mean score of men was higher than the mean score of women.

To answer the third question of the study (Does CALL-based personalized learning have any effect on Iranian EFL learners' reading comprehension ability at the intermediate level?), the data were analyzed through SPSS via independent sample t-test. The results illustrated that CALL-based personalized program had a significantly positive effect on reading comprehension ability of students.

Analysis of the first question of the study

As table 1 indicates, paired-samples t-test was run between the pretest and posttest of the first experimental group. Table 1 provides descriptive statistics such as mean, number, standard deviation and standard error mean. As the table illustrates the number of students in each test was 60. The mean score of the pretest is 4.5000 and the mean score of the posttest is 8.0000. Thus the mean scores of the experimental group were raised from the pretest to the posttest (after the application of the treatment of the study).

Table 1
 Matched t-test between pre-posttest of the first experimental group
 Paired samples statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Post Experimental	8.0000	60	1.02598	.22942
	Pre Experimental	4.5000	60	.51299	.11471

According to table 2, the mean difference between the pretest and posttest of the first experimental group is 3.50000. Also, df (degree of freedom) is 19. Sig (2-tailed) is .000 which is less than 5. These tables confirm that treatment of the study has been significant after being exposed to the treatment of the study.

Table 2
Paired samples t-test of the first experimental group
Paired samples statistics

Paired Differences					T	df	Sig.(2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
					Lower	Upper		
Pair 1	Post Exp.	3.50000	.51299	.11471	3.25991	3.74009	30.512	19 .000

As table 3 reveals, paired-samples t-test was run between the pretest and posttest of the control group.

Table 3
Descriptive statistics of the control group
Paired samples statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Post Control	6.7500	30	1.06992	.23924
	Pre Control	5.0500	30	.82558	.18460

According to table 4 the mean difference between the pretest and posttest of the control group is 1.70000. Also, df (degree of freedom) is 19. Sig (2-tailed) is .000 which is less than 5. Also the mean score of the control group raised from 5.05 to 6.75, in fact mean difference of the control group is 1.7 but the mean score of the first experimental group raised from 4.5 to 8. So it reveals a significant effect of the treatment on the first experimental group. Although mean score of the first experimental group in their pretest was less than the mean score of the control group in their pretest but ultimately greater achievement is obtained by the first experimental group than the control group.

Table 4
 Paired samples statistics of the control group
 Paired samples test

		Paired Differences					T	df	Sig.(2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Post Cont	1.70000	.47016	.10513	1.47996	1.92004	16.170	19	.000
	Per Cont								

Figure 1 shows the progress of the first experimental group.

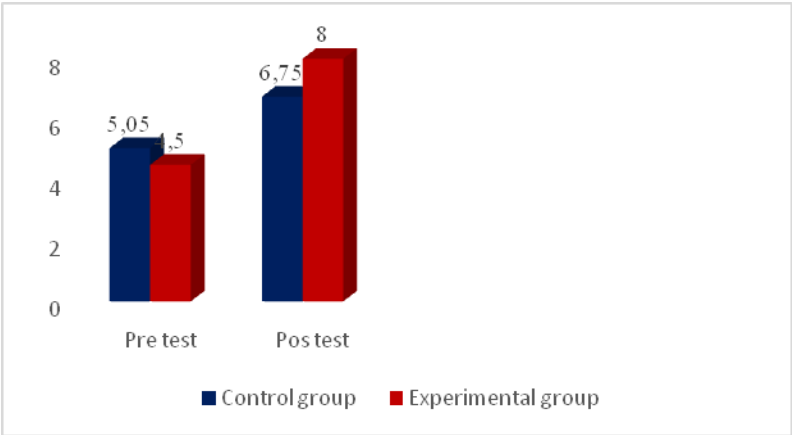


Figure 1: The progress of the first experimental group

Analysis of the second question of the study

Table 5 provides descriptive statistics of the first experimental group according to which the first experimental group was divided into two groups i.e. females and males. Each group consisted of 15 participants. As table 5 reveals, the mean scores of the male group is higher than the mean score of the female group.

Table 5
Descriptive statistics of the males and females of the study on the posttest in the first experimental group

Group statistics					
	Treat Type	N	Mean	Std. Deviation	Std. Error Mean
Reading	Male	15	6.8000	1.93581	.43286
	Female	15	5.7500	1.01955	.22798

According to table 6, there were two groups each containing 15 students. One of the questions that the present study intended to answer was whether there was any significant difference between the performances of the males and the females i.e. whether there was any difference across gender. Sig (2-tailed) is .040 which is less than 5 so the null hypothesis is rejected. Also, the mean scores of the first experimental male group (mean = 6.800) is higher than the mean scores of the female group who received (mean = 5.7500).

Table 6

Inferential statistics: Independents samples t-test: Independents samples t-test

	Levene's Test for Equality of Variances				t-test For Equality Of Means				
	F	Sig.	T	Df	Sig.(2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	9.957	.003	2.146	38	.038	1.05000	.48923	.05961	2.04039
Equal variances not assumed			2.146	28.788	.040	1.05000	.48923	.04910	2.05090

Figure 2 shows the performances of male/female subjects on the posttest.

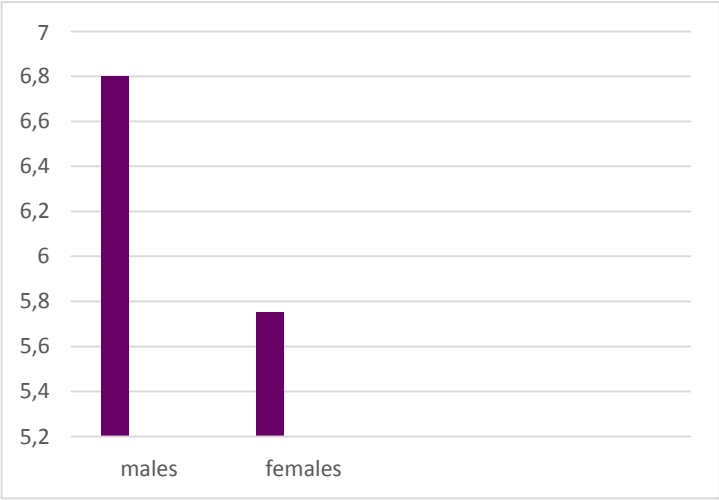


Figure 2: The performances of male/female subjects on the posttest

Analysis of the third question of the study

As table 7 reveals, paired-samples t-test was run between the pretest and posttest of the CALL-based group.

Table 7
Descriptive statistics: Paired samples t-test between the pre-posttest of the CALL-based group

		Paired samples statistics			
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Post Ex	7.6000	30	.50262	.11239
	Pre Exp	5.2000	30	.76777	.17168

According to table 8 the mean difference between the pretest and posttest of the CALL-based group is 2.40000. Also, df (degree of freedom) is 19. Sig (2-tailed) is .000 which is less than 5.

Table 8
Inferential statistics: Paired samples t-test of the CALL-based group: Paired samples test

		Paired differences				T	df	Sig.(2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Mean				
					Lower	Upper			
Pair 1	Post Exp.	2.40000	.94032	.21026	1.95991	2.84009	11.414	19	.000
	Per p.								

The progress of the CALL-based group is shown in the figure 3.

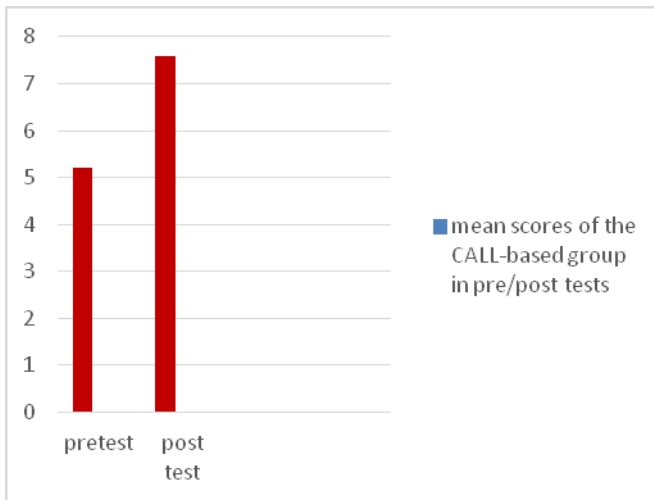


Figure 3: The progress of the CALL-based group

Discussion

The first null hypothesis of this research indicated that general personalized learning does not affect Iranian EFL learners' reading comprehension ability. But this study rejected this null hypothesis. While some instructional barriers did exist, the findings of this study showed that students who received instruction through general personalized learning program performed better on the post test and showed more achievement than students who were taught traditional method. The second null hypothesis of this research stated that there is no significant difference between the mean scores of Iranian male/female English learners' reading comprehension tests as a result of exposure to general personalized learning approach. But the findings of this study demonstrated that there was a significant difference between the mean scores of men and women as a result of exposure to general personalized learning approach. The findings

of this study present considerable achievement for men than for women. The same result has been achieved regarding the second experimental group. In contrast, in control group, females performed better than males (Tables 9, 10).

Table 9
Descriptive statistics of the males and females of the study in the control group

		Group Statistics			
Gender		N	Mean	Std. Deviation	Std. Error Mean
Reading	Male	15	4.3000	.65696	.14690
	Female	15	6.8500	1.22582	.27410

It may be concluded that traditional method is more effective for female learners than males. However, this result is out of scope of this study and still needs more researches to be proved.

Table 10
Inferential statistics: Independents samples t-test

		Independent Samples Test					t-test For Equality Of Means		
		Levene's Test for Equality of Variances			Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	T				Lower	Upper
Reading	Equal variances assumed	5.258	.027	8.200	.000	2.55000	.31098	1.92045	3.18595
	Equal variances not assumed			8.200	.000	2.55000	.31098	1.92045	

The third null hypothesis of this research pointed out that CALL-based personalized learning approach has no effect on Iranian English learners' reading comprehension ability. But the results of this study indicated that CALL-based personalized learning approach had a marked effect on reading comprehension ability of Iranian students.

Participants in this study who were homogeneous in terms of reading comprehension ability before the treatment showed a significant difference after the treatment. Experimental group 1 who received instruction through personalized learning approach could overcome reading failure, obtained more comprehension of the texts and became more proficient readers. The improvement made by Experimental group 1 suggests that personalized learning program has a positive effect on reading comprehension ability of students in comparison to the control group.

However, the findings of this study reflected an outstanding achievement for the second experimental group who went through personalized learning program supported by CALL. They could overcome reading failure. Also more comprehension of the subject matter was achieved by the students in this group. Students were provided with immediate feedback and different types of reinforcement by computer based instruction. The teacher worked as a guide, by providing the tasks according to the individual students' level of proficiency and their interest.

The findings of this study are in line with Andersen (2013) who conducted a study on teaching reading through computer-assisted language learning. Andersen investigated how reading ability of secondary school students may be enhanced through using computer. Andersen managed a year-long study in order to examine the role of two methods of teaching reading skills, an instructor led class versus computer-assisted language learning in increasing the literal, inferential and evaluative levels of reading skills. The results of that study indicated that CALL was 35% more effective than the traditional instructor-led class. Also that study suggests that more effective learning environments for teaching reading can be provided by applying CALL.

Discussion and Conclusion

The result of this study seem to be compatible with Rezvani and Ketabi (2011) who conducted a research to explore the differences between two types of instruction materials-websites and textbooks and their effect on the learner's knowledge of certain grammatical rules. The finding of that study came to conclusion that web-based materials can increase learners' mastery of grammar. Also learners' motivation can be improved by using websites as a new medium for instruction.

This study seem to be in line with Marzban (2011) who investigated the improvement of reading comprehension through computer assisted learning in Iranian intermediate English students. The results of that study showed that CALL instructional techniques can contribute to the improvement of the students' reading ability more than traditional method of teaching reading.

Talebi and Teimoury (2013) investigated the effect of CALL on improving learners' pronunciation skills. The result of that study reflected that it is possible to increase learners' motivation and interest for learning through using CALL. Also, there was a significant improvement ($p < 0.05$) in the students' pronunciation through applying CALL; so they came to the similar conclusions with the current study.

Similarly, Al-Mansour and Al-Shomra (2012) examined the effect of computer assisted-instruction on Saudi university students' learning of English. That study came to conclusion that the students who were taught through CALL program outperformed those who received instruction through traditional method. The results of this study are also in line with the results gained by Barani (2011) who conducted a research on the effect of CALL on students' listening skills. Data from that study indicated that users of computer had better achievement ($p < 0.05$) than non-users. Ghasemi; Hashemi and Haghighi Bardine (2011) also believed that learning via technology has many benefits.

It became evident in this study that general personalized learning approach had a marked effect on reading comprehension ability of the

students especially when it is supported by a computer assisted language learning system. So, it is recommended that the curriculum developers in Iran and other countries, who don't utilize personalized learning approach, incorporate it into their educational system. Especially, they should consider the use of computer as an effective way to improve reading comprehension ability of the students.

The results of this study showed that there is a serious need for a great change towards more innovative ways of teaching. So, the findings of this study can be beneficial for educational system in Iran. Curriculum developers should consider that a part of the course book should be devoted to the CALL activities and materials. Teaching of basic computer skills should also be included in the curriculum. The findings of this study also can be useful for material developers. They should pay attention to the interests, attitudes, needs, intelligence of the learners in material developing.

The findings of this study also can be beneficial for foreign language teachers in Iran. Teachers can move from teacher-centered approach toward learner-centered approach. They can consider personalized language learning as an effective way for teaching reading. Although most of instructional contexts in Iran do use computers for reading, teachers should not neglect the computer as the most effective technology for promoting reading comprehension of the students in today's modern world. Teachers also should be taught how to overcome possible problems while using CALL programs. Reliable and useful network environment should be introduced to the teachers. Instructional context should utilize modern equipment.

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Educación Inclusiva del Alumnado Inmigrante: Lecciones desde Estados Unidos, Canadá y Australia

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Educación Inclusiva del Alumnado Inmigrante: Lecciones desde Estados Unidos, Canadá y Australia

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Resumen

Muchos programas, en España o Europa, entienden al alumnado inmigrante como un colectivo homogéneo, aplicando soluciones iguales a todos, sin lograr promover su inclusión socio-educativa. Sin embargo, algunos países anglosajones observan diferencias en este grupo que influyen en su éxito educativo e inclusión social y cuyo conocimiento puede ayudar a promover actuaciones que atiendan mejor a esta población. El artículo describe y analiza el concepto de estudiante con escolaridad formal limitada o interrumpida y discute los factores que la escuela tiene en cuenta para fomentar su inclusión socio-educativa, abogando por una intervención holística que tenga en cuenta este alumnado necesita mucho más que centrar su aprendizaje únicamente el nuevo idioma, por ejemplo el apoyo social para superar los problemas socioemocionales que les acompañan. Resulta especialmente relevante para España y Europa, pues recientemente acuden cada vez más alumnos y alumnas con estas características a nuestras escuelas.

Palabras clave: estudiante bilingüe, estudiantes de minorías culturales, diversidad del alumnado, escuelas inclusivas

Inclusive Immigrant Student Education: Lessons from the United States, Canada and Australia

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Abstract

Many programs, in Spain or Europe, understand immigrant students as a homogeneous group, applying equal solutions to all, without being able to promote their socio-educational inclusion. However, some Anglophone countries observe differences within this group that may influence their educational success and social inclusion and whose knowledge can help to promote actions that better serve this population. The article describes and analyzes the concept of a student with limited or interrupted formal education and discusses the factors that schools may consider for promoting their socio-educational inclusion, advocating a holistic intervention that takes into account this students' needs which go beyond focusing their learning only on the new language, for example social support to overcome the socio-emotional problems that accompany them. It is especially relevant for Spain and Europe, as more and more students with these characteristics are arriving to our schools.

Keywords: bilingual student, minority group students, student diversity, inclusive schools



La crisis humanitaria que Europa está viviendo en sus fronteras debido a la guerra y los cientos de miles de personas desplazadas, pueden suponer la llegada de menores, regular o irregularmente, a las aulas de las escuelas europeas. Pero dado lo reciente del fenómeno, todavía no conocemos las características de esta población, ni los factores que la escuela debe tener en cuenta a la hora de fomentar el éxito educativo y la inclusión social de este alumnado inmigrante.

En este sentido, la mayor parte de países sigue entendiendo al grupo de alumnado inmigrante como un grupo homogéneo, tal y como Menken, Klein y Chaef (2012) señalan, “es particularmente urgente la necesidad de comprender mejor la diversidad de los bilingües emergentes en secundaria y la realidad que estos alumnos y alumnas tienen, ya que las necesidades educativas son diferentes; en cambio, este grupo es a menudo mal percibido como monolítico, tanto en la academia como en el entorno escolar” (p.122), hecho también expuesto por Aubert, Molina, Shubert yVidu (2017).

El objetivo de este artículo es tomar como referencia las investigaciones previas sobre la heterogeneidad del grupo de alumnado inmigrante con el fin de informar las políticas educativas con este colectivo, especialmente dado que el reto al que se enfrentan los países europeos.

Partiendo de esta necesidad de conocer las diferencias dentro del grupo de alumnado inmigrante, desde hace ya una década, los países angloparlantes, especialmente Estados Unidos, Canadá y Australia, han comenzado a investigar sobre las diferentes experiencias dentro del grupo de alumnado inmigrante. La literatura en este campo se centra en Estados Unidos (Boyston & Short, 2003; Klein & Martohardjono, 2008; Ruíz de Velasco, Fix & Chu, 2000;), Canadá (Thomas, 2004; Toohey & Derwing, 2008) y Australia (Matthews, 2008; Medina Audelo, 2017; Woods, 2009) por lo que el idioma que se utiliza como referencia es el inglés, y se parte de que todos los y las estudiantes inmigrantes lo desconocen. Los tres grupos principales de alumnos y alumnas, siguiendo a Olsen y Jaramillo (1999) y Freeman, Freeman y Mercuri (2002), son:

1. Recién llegados con una escolarización adecuada.
2. Estudiantes de inglés de largo plazo.
3. Estudiantes con escolaridad formal interrumpida.

En el presente artículo nos centramos en el último grupo, los y las estudiantes con escolaridad formal limitada o interrumpida, en adelante SLIFEs, ya que se trata de la situación que van a vivir las y los menores refugiados que llegan a las aulas europeas y que ya caracteriza a muchos otros y otras estudiantes dentro de nuestros sistemas educativos. Los SLIFEs se caracterizan porque, además de las condiciones del resto del alumnado inmigrante (como el desconocimiento de la lengua de instrucción), han sufrido interrupciones en su educación, generalmente en sus países de origen y, debido a esta interrupción, se encuentran al menos dos cursos por debajo de sus iguales. Hasta ahora se consideraba que los y las estudiantes con escolaridad formal interrumpida eran generalmente refugiados/as (Crandall & Greenblatt, 1998), ya que entre 1980 y 1990 fueron muchas personas las que acudieron a USA; pero actualmente este colectivo se está ampliando más allá de esta característica incluyendo a otros grupos. Además, esta caracterización incluye al alumnado refugiado, pero no hay que olvidar que el concepto “refugiado” es una calificación jurídica y, por tanto, podemos tener alumnado que, aunque no lo sea formalmente, tenga las mismas características y, además, no pueda disfrutar del amparo que supone ser considerado legalmente como refugiado. Por ello es preciso una categorización más amplia que nos permita entender las características de este alumnado, cumplan o no con los requisitos jurídicos para adquirir la condición de refugiado e independientemente de la condición administrativa en la que se encuentren. Para ello, en el presente artículo se realiza un análisis teórico sobre las características de este alumnado y las dificultades que los y las educadoras están abordando en el aula con el fin de adelantarnos a una situación que puede llegar a ser frecuente en los centros educativos españoles.

Se presenta inicialmente una definición de lo que son los y las estudiantes con escolaridad formal limitada o interrumpida y los escasos datos existentes sobre su presencia en las aulas. Posteriormente, se abordan sus características académicas y socioemocionales ya que, como se concluye, se requiere un enfoque holístico para la atención de un alumnado con necesidades específicas, que pueden desbordar a los profesores y profesoras por su falta de formación específica.

Metodología

Se ha llevado a cabo un análisis bibliográfico en las principales bases de datos educativas, especialmente ERIC (Educational Resources Information Center) y JCR (Journal Citation Report) en base a los descriptores: estudiante con escolaridad formal interrumpida (SIFE), estudiante con escolaridad formal limitada o interrumpida (SLIFE), estudiante inmigrante, estudiante de inglés (ELL) y estudiante refugiado.

Los Estudiantes con Escolaridad Formal Interrumpida (SLIFEs): Factores Académicos

Para definir a los SLIFEs existen múltiples nomenclaturas “escolaridad formal limitada” (Menken, 2010), “escolaridad previa limitada” (Freeman, Freeman & Mercuri, 2002), “recién llegados” (Short, 2002) o “Underschooled”, término utilizado por Olsen y Jaramanillo (1999) para identificar a los y las estudiantes que “vienen a nosotros [USA] en Secundaria, que nunca han asistido a la escuela en su país natal; o pueden tener uno o incluso varios años de instrucción inadecuada. Otros pueden tener importantes lagunas en su educación, al haber asistido a la escuela sólo esporádicamente” (Olsen & Jaramanillo, 1999, p. 228). Pero como Wright (2010) denuncia al mencionar las etiquetas que se utilizan para referirse al estudiantado que ha pasado mucho tiempo aprendiendo inglés (Long Term English Language Learners), estas nomenclaturas pueden sugerir un déficit en los propios alumnos y alumnas ya que en ninguna parte de la “etiqueta” se indica que los y las estudiantes estén aprendiendo activamente. En este sentido se están produciendo nuevas investigaciones para evitar esta perpetuación promoviendo el uso del término “bilingües emergentes” (Por ejemplo: García, Klein & Falchi, 2008; o Menken, 2013), centradas en los elementos positivos y fortalezas de este alumnado. Los y las estudiantes bilingües emergentes son niños y niñas inmigrantes o hijos e hijas de inmigrantes, o pueblos indígenas, que están añadiendo la lengua de instrucción a la lengua que utilizan en casa, y durante el proceso educativo ellos mismos se convierten en bilingües (García 2009). Esta es la realidad de la mayoría de los países, en donde prácticamente la totalidad de

alumnado inmigrante podría ser bilingüe emergente. En este sentido, como García et. al (2008) explican, es "a través de la escuela y por medio de la adquisición del inglés, que estos infantes se convierten en bilingües, capaces de seguir funcionando en su lengua materna, así como en inglés, su nuevo idioma y el de la escuela" (García et. al, 2008, p. 6).

Desde el punto de vista de la Administración y de muchas investigaciones, los y las estudiantes SLIFEs se caracterizan por una escolaridad formal previa limitada o nula, lo que conlleva una alfabetización en la lengua materna deficiente y la falta de dominio de la lengua de instrucción (Boyson & Short, 2003; Freeman et. al, 2002; Klein & Martohardjono, 2008; Ruiz de Velasco et. al, 2000).

En esta misma línea, una de las primeras definiciones que se dieron es la propuesta por Advocates for Children (2010), que describe a los SLIFEs como estudiantes que, además de venir de un país cuyo idioma no es inglés:

1. Entraron a los Estados Unidos después del segundo grado;
2. Han tenido por lo menos dos años menos de escolaridad que sus pares;
3. Funcionan al menos dos años por debajo del nivel esperado en lectura y matemáticas; y
4. Pueden estar pre-alfabetizados en su lengua materna.

Por tanto, los SLIFE se caracterizan por tener una alfabetización inexistente o limitada en su lengua materna, lo que supone que su rendimiento académico esté muy por debajo del nivel que les correspondería por edad (Freeman et. al, 2002; Klein & Martohardjono, 2008; Ruíz de Velasco et. al, 2000).

En el caso de Canadá se da incluso un paso más allá estableciendo tres categorías de estudiantes SLIFEs en función de su alfabetización previa: prealfabetos y analfabetos; semi-alfabetos; y funcionalmente alfabetizados (Johansson et al 2001).

Las limitaciones en su lengua materna se deben a la interrupción en su educación, que en algunos casos puede incluso implicar no haber acudido nunca a la escuela. En este sentido, la literatura se ha hecho eco de las motivaciones que han dado lugar a la interrupción de la educación o a la limitación de ésta. Lee (2012) señala que los SLIFEs pueden provenir de los países donde la pobreza, los desastres y disturbios civiles afectan el

desarrollo de la alfabetización y oportunidades para la educación. Hickey (2015) por su parte profundiza en este aspecto y hace referencia a que “las razones de la falta de acceso a la educación formal de los estudiantes pueden ir desde el conflicto armado y el desplazamiento como refugiados hasta haber crecido en las zonas rurales con instalaciones escolares limitadas y altos costes para uniformes o materiales escolares” (Hickey, 2015, p. 81). A estas razones, DeCapua y Marshall (2010) añaden que su limitación en la educación a menudo se debe a la falta de recursos, maestros poco capacitados o el tipo de educación recibida. Respecto a este último aspecto, la educación recibida en el país de origen, Boyson y Short (2003) hacen referencia a que, aunque no haya habido una interrupción propiamente, puede haberse dado una educación limitada o que esta educación haya sido muy diferente. Es lo que Klein y Martohardjono (2006) han señalado como “non-parallel-schooling”, es decir, educación en sus países de origen que no equivale a la que hubieran recibido en el país de acogida.

En este sentido, la descripción más amplia ha sido la dada por DeCapua y Marshall (2011), quienes describen a estos estudiantes en tres formas:

1. Pueden provenir de países en los que no tiene escolarización obligatoria, por lo tanto, no tienen conocimiento de la escuela. Por ejemplo, ellos pueden no saber cómo sostener un lápiz o sentarse en una silla. Puede que no hayan desarrollado un lenguaje escrito, o el lenguaje escrito es un fenómeno relativamente nuevo.
2. Pueden comenzar la escuela en un lugar y continuamente moverse, como es el caso de muchos hijos e hijas de los y las trabajadoras migrantes. En este caso, las ausencias prolongadas y cambios en las escuelas son una característica común.
3. Es posible que hayan asistido a la escuela con regularidad en sus países de origen, pero la calidad de la educación que recibieron fue significativamente menor que la que hubieran recibido en Estados Unidos, por lo que están varios años por detrás de sus pares estadounidenses. Esta falta de educación de calidad puede ser debida a la insuficiencia de recursos, la escasez de maestros capacitados, la falta de fondos de los padres para pagar la escuela,

las condiciones climáticas que interrumpen la escolarización (como es el caso de algunos estudiantes indios cuyas escuelas cierran durante la temporada de lluvia), o el tipo de educación que recibieron.

Es decir, estos estudiantes provienen de familias diversas en términos de etnia, religión, origen del lenguaje, dominio del inglés, estatus migratorio, y la clase social.

Dentro de las características del alumnado SLIFE está la edad en la que se considera que un estudiante es SLIFE. En este aspecto tampoco hay un acuerdo, por ejemplo Calderón (2007) categoriza SLIFES como estudiantes entre grado 4 y 12 (desde 4º de Primaria a 2º de Bachiller); sin embargo, el estudiantado que por diferentes motivos no recibió los 3 primeros años de educación primaria también podría considerarse que tiene una escolaridad formal interrumpida; en este sentido Advocates for Children ampliaba la definición a todos aquellos que llegaron después de 2º grado. Y aunque durante la etapa de educación primaria la interrupción es muy importante, la situación se vuelve más complicada para el estudiantado que llega al país de acogida durante la educación secundaria. Esto se debe a que, además de necesitar dominar la lengua de instrucción para acceder a contenidos más complejos, la necesitan para comunicar estos nuevos conocimientos (Bunch, 2010).

Además, los SLIFES que llegan al país de acogida durante la educación secundaria han perdido cursos durante la educación primaria, lo que implica que han recibido muchas menos horas de clases de lengua y matemáticas, lo que dificulta la adquisición de la lengua de instrucción y de conocimientos complejos. Por ejemplo, tomando como referencia los últimos datos del informe “Education at Glance” (OECD, 2015) en educación primaria, la media de la OCDE es dedicar el 27% de las horas de clase a asignaturas relacionadas con las habilidades lingüísticas y el 17% con las matemáticas. El tiempo que se dedica a estas asignaturas en secundaria se reduce a un 16% y un 13% respectivamente por suponer que se han adquirido los conocimientos de alfabetización básicos. Un alumno o alumna que ha perdido 2 años de escolarización, habría perdido 427.14 horas de clases de lengua si tomamos como referencia la media de la OCDE. Esta cifra podría

elevarse a 560 horas si tomamos por ejemplo el caso de México (OECD, 2015)

Junto con la falta de horas, que afecta a estudiantes que han podido no sufrir interrupciones, el informe desarrollado por la Oficina de Inmigrantes de Indiana señala que los SLIFEs pueden no ser capaces de leer y escribir en su lengua materna, y también pueden carecer de una comprensión de los conceptos básicos y conocimiento de los contenidos y las habilidades de pensamiento crítico que sus compañeros ya dominan (Indiana Department of Education-Office of English Language Learning and Migrant Education, 2008, p. 1) .

Por otra parte, no se debe olvidar que, junto al menor número de horas y las características del alumnado, un estudio de García (1999) sobre la ciudad de New York, señalaba que el profesorado de estos alumnos y alumnas en sus países de origen habían tenido una escolarización formal limitada.

Puede parecer un grupo muy específico y no representativo dentro del grupo de alumnado inmigrante, pero ya en un estudio llevado a cabo en 1993 se estimaba que al menos el 20% del estudiantado con un nivel dominio del inglés limitado de High School habían perdido dos años o más de escolarización (Fleishman & Hospstock, 1993). En este mismo sentido, en 1999 una investigación cualitativa con profesorado de California señaló que, según los propios profesores y profesoras, al menos el 15% de sus estudiantes de Middle School habían perdido dos o más años de escolaridad desde los 6 años de edad (Olsen, Jaramanillo, MCcall-Perez & White, 1999, p. 170).

A pesar de que no han sido ampliamente estudiados, existen otros aspectos de los estudiantes SLIFEs que se deben tener en cuenta y que pueden afectar a sus resultados académicos como son la situación socioemocional y familiar, un aspecto que se aborda a continuación.

Factores Socioemocionales y Familiares

Pocos estudios han abordado esta situación de los y las estudiantes SLIFEs, y los que lo han hecho ha sido de manera descriptiva y poco profunda, pero nos dejan importantes factores a tener en cuenta. Específicamente son tres las áreas en las que se podría agrupar la revisión de la literatura: el estrés derivado de su falta de experiencia en la educación formal, así como sus dificultades académicas, las experiencias traumáticas que vivieron en sus países de origen y en el viaje a USA y las actuales condiciones de vida en USA.

El primer factor, que además es extensible a otros muchos estudiantes de inglés como L2, es el que resulta más ampliamente estudiado dentro de las escasas investigaciones llevadas a cabo en este ámbito. En el informe del centro de estudiantes inmigrantes de Indiana (2008) se hace referencia al estrés y la frustración que pueden sufrir estos estudiantes. La educación formal de un estudiante puede haber sido interrumpida por la migración, la guerra, la falta de acceso a la educación, y/o circunstancias socioeconómicas o culturales (Indiana, 2008, p. 1). Como resultado, el estudiante puede sufrir un trastorno de estrés post-traumático, puede estar bajo la angustia grave, o puede ser completamente abrumado por la necesidad de asimilar un nuevo entorno escolar en un nuevo idioma.

También puede suceder que un SLIFE esté muy emocionado por asistir a la escuela regularmente, y puede tener grandes esperanzas en su capacidad para trabajar y mantener a su familia. Sin embargo, el descubrimiento de que se encuentra muy por detrás de sus compañeros puede ser una fuente de gran frustración. Por mucho que mejore siempre está persiguiendo un objetivo que se aleja de él ya que sus compañeros continúan aprendiendo contenidos mientras él debe adquirir también el inglés. La comprensión de que el cumplimiento de sus objetivos será más difícil de lo esperado puede ser devastadora.

En este mismo sentido se orienta la investigación llevada a cabo en NYC (Advocates for Children, 2010) y que señala que “aparte de la integración en el entorno escolar, casi todos los y las estudiantes tenían necesidades emocionales intensas derivadas de sus retos académicos. Mientras que la investigación indica que los SLIFEs entran a las escuelas de

Nueva York con expectativas muy altas, incluyendo planes para obtener un diploma de escuela secundaria, pronto se desaniman. Casi la totalidad del estudiantado con el que trabajamos se sintió aislado en la escuela, avergonzado por estar tan lejos detrás de sus compañeros, consciente de su falta de progreso, y abrumado por la lucha para ajustar la configuración y las actividades escolares. En general, la escuela era un lugar alienante donde tenían pocas o ninguna experiencia con éxito” (*Advocates for Children*, 2010, p. 26).

Por ejemplo, el trabajo de la Dra. Birman (2007) señala que muchos menores refugiados han sufrido eventos muy traumáticos. Muchos han vivido bombardeos, han escapado de los soldados, han huido de sus hogares de repente bajo una gran amenaza, o han sido testigos de asesinatos y otros actos terribles, o incluso ellos han participado. Los trabajadores de los campos de refugiados generalmente dejan los campamentos de refugiados durante la noche, y los campos pueden ser muy inseguros con incursiones nocturnas. También puede suceder que la comida no sea suficiente. Finalmente, los muchos movimientos que los niños y niñas han vivido, incluyendo el traslado a los Estados Unidos, pueden ser a la vez emocionantes y traumáticos.

Las familias se separan durante esta transición, y su reasentamiento en los barrios urbanos de Estados Unidos puede ser muy decepcionante y estresante. Para los infantes, algunas de las cosas que pasan a su alrededor puede desencadenar los recuerdos traumáticos, o pueden reaccionar de maneras que ellos han aprendido a reaccionar con el fin de protegerse a sí mismos. En este mismo sentido, “cabe destacarse que es común para el SLIFE con quien trabajamos haber sufrido trauma significativo en sus países de origen, durante la migración, y después de llegar a los EE.UU. Estos menores y adultos jóvenes se propusieron encontrar parientes u otras conexiones en Nueva York, llegaron solos y solas o pronto se encontraron a solas, y terminaron sin hogar o en el cuidado del sistema de crianza. Algunos fueron matriculados por primera vez en la escuela por los trabajadores sociales de servicios sociales, pero la continua inestabilidad en sus situaciones de vida sólo se añade al trauma que ya habían experimentado, lo que hace aún más difícil satisfacer sus necesidades emocionales” (*Advocates for Children*, 2010, p. 26).

Respecto al segundo factor señalado, las experiencias traumáticas que vivieron en sus países de origen y en el viaje a USA, Birman (2007) destaca que el profesorado debe anticipar y ayudar a los infantes a orientar los eventos que les pueden estar perturbando; darles seguridad cuando aparezca algún contenido traumático y escucharles activamente y ofrecerles apoyo. Aunque puntualiza también que no se les debe forzar a probar esos hechos ya que muchas veces es imposible y les generaría un estrés innecesario.

Kanu (2008), haciendo referencia explícitamente a los estudiantes SLIFEs, que además son refugiados, señala que también se pueden ver afectados por el estrés causado por la aculturación, numerosos retos psicosociales y la posibilidad de haber experimentado traumas.

El estudiantado que tiene estas experiencias se encuentra representado en todos los niveles del espectro de la alfabetización. Sin embargo, la interrupción traumática que han experimentado es significativamente distinta de lo que habría sido típico para su desarrollo. Los comportamientos que van desde la impulsividad a la hipervigilancia no son inusuales porque los y las estudiantes han vivido o están viviendo en un entorno turbulento y responden a los traumas de diferentes formas (Craig, 2008).

Finalmente el tercer factor, su situación actual en USA. Carhill, Gayatan y Suárez-Orozco (2007) consideran que la inmigración es una de las transiciones más estresantes que una familia puede sufrir, señalan que los cambios en los contextos, las relaciones y los roles pueden ser desorientadores, dar lugar a una sensación de pérdida, y pueden tener un impacto duradero en el desarrollo de los niños y niñas. En este sentido, la velocidad de un infante para absorber conocimientos en la nueva cultura puede crear oportunidades o causar tensiones (Carhill, Gayatan & Suárez-Orozco, 2007).

Los distintos factores emocionales (y cómo éstos se refuerzan en las interacciones sociales) son claves para la adquisición de segundas lenguas. Lightbown y Spada (2006) especifican que las características de la personalidad, tales como la inhibición, la ansiedad, la autoestima, la dominación, la locuacidad y capacidad de respuesta tienen una influencia importante en el éxito en el aprendizaje de idiomas. Señalan concretamente que la inhibición desalienta la toma de riesgos, la cual es necesaria para el

progreso en el aprendizaje de idiomas. Además, debido a que la educación formal de un estudiante puede haber sido interrumpida por la migración, la falta de acceso a la educación, o de otras circunstancias, los SLIFEs pueden sufrir angustia por la necesidad de asimilarse a un nuevo entorno escolar (Robertson & Lafond, 2008). Estos sentimientos de preocupación, nerviosismo o estrés juegan un papel importante en el aprendizaje de un segundo idioma, interfiriendo con el proceso de aprendizaje (Lightbown & Spada, 2006).

En este sentido, el entorno resulta de una gran influencia en los factores emocionales del alumnado a la hora de enfrentarse a la adquisición de una segunda lengua (Lightbown & Spada, 2006), especialmente la comunidad en la que se desenvuelven los SLIFEs. Así, estos mismos autores (Lightbown & Spada, 2006) defienden que el que este alumnado tenga referentes adultos en su comunidad, que hablan esta segunda lengua de instrucción, puede ser un factor motivador, porque quieren funcionar como nativos o llegar a ser como las personas que hablan el idioma, o bien tener el objetivo práctico de poder comunicarse con ellas.

En el caso del alumnado inmigrante, y especialmente el recién llegado, como son los SLIFEs, el aprendizaje de la nueva lengua es esencial. De hecho, como señala Abedi (2008), las oportunidades de aprendizaje están íntimamente vinculadas al dominio de la lengua de instrucción. En este sentido, como ya se ha visto, el proceso de adquisición de la lengua de instrucción por parte del alumnado inmigrante está influido por el contexto y las oportunidades de aprender que éste le proporciona, tanto en casa, como en la escuela y en otros espacios de socialización. Así, uno de los elementos claves que condicionan las oportunidades de aprendizaje es la motivación que se desprende de las interacciones que éstos mantienen con todo tipo de personas. (Lightbown & Spada, 2011).

A continuación se describen otras de las características de este alumnado y que tienen influencia en su rendimiento académico, ya que influyen en su manera de aprender, y que están relacionadas fundamentalmente con factores culturales.

Factores Psicosociales

La Oficina de estudiantes inmigrantes de Indiana describió algunas de las características fundamentales que les afectan: el estrés, la frustración, los déficits académicos y de alfabetización y el alto riesgo de abandono escolar (Indiana, 2008:1). En este caso se puede ver cómo, además de las necesidades académicas y socioemocionales ya señaladas, se hace referencia a la consecuencia, el alto riesgo de abandono. Algunos autores vinculan su tendencia a abandonar los estudios con su percepción (o la de sus padres) de la falta de retribución a corto plazo, es decir, no sienten que la educación vaya a suponer un cambio significativo y mejoría de su situación (Ruíz de Velasco, Fix & Chu Clewell, 2000).

Específicamente para los SLIFEs se considera que tienen un alto riesgo de abandonar la escuela secundaria dado que su desconocimiento del idioma provoca una menor implicación con la institución educativa: "los estudiantes latinos en riesgo, de entre 16-19 años, que consideraban que no hablaban bien inglés, eran cuatro veces más propensos a abandonar la escuela secundaria que sus compañeros que hablaban bien inglés". (Fry, 2003 citado en Spaulding, Carolino & Amén, 2004, p.8)

Pero estos aspectos responden únicamente a sus características desde un punto de vista académico, siendo la situación y complejidad de los estudiantes inmigrantes mucho más amplia. Así, además de la situación académica, algunos autores se han hecho eco de otro tipo de retos en el trabajo con estos estudiantes. Por ejemplo, Brown, Miller y Mitchell (2006) señalan las alfabetizaciones culturales, que permiten entender conceptos concretos, y la pedagogía de trabajo ya que algunos pueden no estar acostumbrados, por ejemplo, al trabajo en grupos o lo contrario.

En este mismo sentido, DeCapua y Marshall (2010) señalan la importancia de tener en cuenta los procesos de aprendizaje de estos estudiantes, ya que por cuestiones culturales pueden no ser los mismos que los de la educación que van a recibir en las escuelas americanas, lo que requiere un proceso de ajuste. Entre estos elementos destacan cómo el aprendizaje se logra de manera compartida (responsabilidad de grupo) y como el aprendizaje es un proceso oral (DeCapua & Marshall, 2010, p. 166; Tellado, 2017).

DeCapua y Marshall (2010) van más allá y explican las características del aprendizaje de estos estudiantes incluyendo en ellas la perspectiva cultural, haciendo referencia a que las condiciones de aprendizaje de los y las estudiantes SLIFEs pasan por la relevancia inmediata y el aprendizaje como una forma de relacionarse con los demás.

En esta misma línea, Kanu (2008), señala entre las dificultades académicas de los SLIFEs la velocidad de los curriculums, la escasa diferenciación entre la educación para SLIFEs y la educación general cuando están en clases regulares, dificultades para tomar apuntes o escribir textos académicos, pensamiento crítico y habilidades de organización.

Esta situación representa un desafío para los educadores, ya que por un lado, este alumnado requiere instrucción en los conceptos y las habilidades necesarias para el éxito académico, incluyendo cómo estudiar y tomar notas, y cómo participar en las discusiones en clase básicas. Por otra parte, su éxito académico se basa en el cumplimiento de las normas cada vez más sofisticadas y evaluaciones en inglés. Así que, incluso cuando los estudiantes no dominan el inglés o no son educados formalmente, en lugar de centrarse exclusivamente en la base y/o habilidades de recuperación, es importante ofrecer lecciones diseñadas para desarrollar el conocimiento crítico, con contenidos que reflejen vida de los estudiantes, los intereses y cultura (Clough, 2017; DiCerbo & Loop, 2003).

Tener a los estudiantes con una amplia gama de habilidades de lectura y escritura en una misma aula, puede ser abrumador para el profesorado, sobre todo los nuevos maestros o maestras que no han sido debidamente capacitados para atender las necesidades de esta población de estudiantes.

Otros indicadores de la población SLIFE pueden incluir: registros educativos pobres, ausencia de registros educativos, o expedientes educativos con importantes lagunas; auto-informe o informes de los padres de ausencia de la escuela por largos períodos de tiempo; pobres registros de asistencia a las anteriores escuelas; notas pobres; comprensión muy débil de contenido académico; y, bajo rendimiento en las pruebas estandarizadas (DeCapua et al., 2007:42). Además, la ausencia de mecanismos de identificación de este colectivo (Ruíz de Velasco et. al, 2000) ha hecho que se pierdan en el sistema y que en la elaboración de planes para alumnos y alumnas inmigrantes se asuma un cierto nivel de habilidades básicas en vez

de diseñar programas que las desarrollen que deberían haberse asumido en la educación elemental (Crandall & Greenblat, 1998; Crandall et al, 1998; García 1999; Mace-Matluck, Alexander-Kasparik & Queen, 1998).

La mayoría de las investigaciones que se han llevado a cabo en este sentido han dado una visión de los y las estudiantes SLIFEs como carentes, basada en dos dificultades principales: alfabetización nula o limitada y necesidad de aprender la lengua de instrucción (por ejemplo: Boyson y Short, 2003; Freeman et. al, 2002; Klein & Martohardjono, 2008; Ruíz de Velasco et. al, 2000). Menken es muy crítica con los estudios que se limitan a estos dos aspectos y denuncia que “esta visión de los y las estudiantes SLIFEs como, de alguna manera, mentalmente limitados únicamente porque no tienen altos nivel de lenguaje o alfabetización para los objetivos académicos es una extrapolación problemática” (Menken, 2013, p. 453). Hay que tener en cuenta que, junto con estas necesidades, los estudiantes inmigrantes en general y SLIFEs en particular traen a la nueva escuela grandes fortalezas y potencialidades que pueden servir de palanca para su aprendizaje, como es su resiliencia, su alta motivación, su conocimiento práctico y su riqueza intercultural (Hickey, 2015, p. 82), lo que puede utilizarse como fuente de apoyo para desarrollar políticas adecuadas para ayudar en su formación.

Conclusiones y Recomendaciones

Aunque el trabajo presentado se basa en la situación de Estados Unidos, debemos tomar nota de este caso y adelantarnos a un fenómeno que cada vez resulta más evidente en España: el grupo de alumnado inmigrante no es homogéneo.

Si la mayoría de los estudiantes inmigrantes tienen la dificultad de que no hablan la lengua de instrucción y tienen una mayor tendencia al fracaso escolar y al abandono de la escuela (Flecha, Soler-Gallart & Sordé, 2015; Gírbés-Peco, Macías & Álvarez, 2015), los estudiantes SLIFEs tienen, además, la dificultad de que su escolarización se vio interrumpida por diferentes causas. Por ello, junto con la necesidad de adquirir un nuevo idioma y nuevos contenidos propios de su edad, deben rellenar las lagunas académicas previas, adquirir nuevos hábitos escolares e incluso en algunos

casos llevar a cabo una alfabetización que hasta ahora no han tenido posibilidad de recibir. Todo ello imbuido de una situación socioemocional y socioeconómica muy vulnerable y que influye en sus resultados educativos, llevando a las aulas situaciones que el profesorado no está preparado para atender.

A pesar de que las Administraciones han adoptado políticas activas, no se está alcanzando el éxito académico de este colectivo, por lo que se encuentran en riesgo de exclusión educativa y social. No hablan la lengua de instrucción ni tienen un buen nivel educativo y, en consecuencia, se enfrentan a enormes desafíos que, sin los apoyos necesarios, son difíciles de superar, lo que con frecuencia conduce al fracaso y al abandono escolar. Esta situación supondría para estos jóvenes su exclusión educativa, lo que lleva a un alto riesgo de exclusión social dado que cada vez se necesita una mayor cualificación para acceder al mercado laboral.

En su preocupación por ellos, la mayor parte de las investigaciones se han centrado en sus necesidades académicas, aunque han dejado al margen otras necesidades que afectan muy directamente a su rendimiento escolar y que deben ser tenidas en cuenta para alcanzar el desarrollo de programas educativos de éxito, como son las necesidades socioemocionales y factores culturales.

Cabe también señalar que las potencialidades y fortalezas de estos estudiantes todavía pasan desapercibidas para una parte de la comunidad educativa, cuando es esencial tenerlas en cuenta en el desarrollo de nuevos programas. En este sentido, los y las estudiantes inmigrantes pueden, si se les da la oportunidad, compensar sus deficiencias académicas (interrupciones, mala calidad, falta de rutinas y habilidades) con su bagaje cultural y lingüístico. Además, su conocimiento práctico puede aprovecharse para lograr el éxito académico en el país de acogida, llegando a ser bilingües y a alcanzar el nivel deseado de educación, aunque puede costarles más tiempo que a sus compañeros y compañeras.

Pero, con el fin de aprovechar esta riqueza en el aula es imprescindible conocer sus antecedentes y poner en práctica actuaciones educativas que se ha demostrado que tienen éxito con toda la población en general y con colectivos con características similares en particular, como serían en este caso los resultados que se obtienen a través de las comunidades de

aprendizaje, los grupos interactivos o las tertulias literarias dialógicas, entre otras. En este sentido, este estudio ha tratado de dar a conocer en profundidad las características de los estudiantes con escolaridad formal limitada o interrumpida que pueden servir de apoyo para permitir elaborar propuestas educativas adecuadas a sus necesidades.

Por todo ello, coincidimos con las conclusiones a las que han llegado estudios similares señalando que "la preparación de estos estudiantes para una participación efectiva en la sociedad en general requiere de una educación integral, basada en estándares que tomando como punto de partida su conocimiento práctico, consistente y sensible, promueva el dominio de las habilidades académicas, la alfabetización, el aprendizaje socio-emocional, y la conciencia cultural" (Nysed, 2011, p. 3). Es decir, apostamos por un enfoque holístico que atienda a todos los ámbitos del estudiante y que, basándose en evidencias científicas, promueva el máximo de aprendizaje para el alumnado SLIFE.

Para España y Europa, conocer las características y potencialidades de este alumnado supondría la posibilidad de crear políticas y programas más enfocados y basados en evidencias, lo que permitiría desarrollar el derecho a la educación de este alumnado y promover su inclusión social.

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La Confluencia entre Comunidades de Aprendizaje y otros Proyectos: El Caso de los CRFA en Perú y Guatemala

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The Confluence of the Learning Communities Project with other Projects: The Case of the CRFA in Peru and Guatemala

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Abstract

Schools as Learning Communities is a project of global transformation of educational centers that has been developed with scientific bases. In a number of centers and contexts, the Learning coincides and collaborates with other projects. In this article, we analyze the specific case of the collaboration between Schools as Learning Communities and the Rural Centers for Alternate Education (CRFA) in Peru and Guatemala as an example of how fruitful can be this kind of collaboration for children and youth. We also refer to other projects with which Schools as Learning Communities collaborates in other centers and contexts. We state the importance of avoiding understanding collaboration as unification, and the need to clarify in all centers and contexts the bases of every of the projects that collaborate.

Keywords: schools as learning communities, alternate system, rural centers of education in alternation (CRFA), confluence of projects, Successful Educational Actions

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Resumen

Comunidades de Aprendizaje es un proyecto de transformación global de centros educativos realizado con bases científicas. En diferentes centros y contextos, Comunidades de Aprendizaje coincide y colabora con otros proyectos. En este artículo se analiza en detalle el caso concreto de la colaboración entre Comunidades de Aprendizaje y los Centros Rurales de Formación por Alternancia (CRFA) de Perú y Guatemala como prueba de lo fructífera que puede ser este tipo de colaboración para las niñas, niños y jóvenes. Se señalan otros proyectos con los que también está colaborando Comunidades de Aprendizaje en otros centros y contextos. Se precisa la importancia de no confundir colaboración con unificación y la necesidad de clarificar en todos los centros y contextos las bases de cada uno de los proyectos colaboradores

Palabras clave: comunidades de aprendizaje, sistema de alternancia, centros rurales de formación por alternancia (CRFA), confluencia de proyectos, Actuaciones Educativas de Éxito

Comunidades de Aprendizaje es un proyecto de transformación social y educativa que en todos los contextos cumple con un doble objetivo: aumentar el rendimiento académico de todo el alumnado y mejorar la convivencia. El proyecto, dado que el conjunto de las Actuaciones Educativas de Éxito que implica son universales y transferibles, se está llevando a cabo ya en dos continentes, en Europa y América, en países con lenguas, culturas, tradiciones, historias, religiones diferentes. En España, Reino Unido, Brasil, Perú, Guatemala o México centros educativos de educación infantil, primaria, secundaria y adultos están aplicando las Actuaciones Educativas de Éxito tal cual han sido avaladas por la comunidad científica internacional (Flecha, 2015). Su aplicación en contextos diferentes hace que el proyecto tome una manifestación propia en cada lugar, pero siempre respetando los elementos esenciales y definitorios de las Actuaciones Educativas de Éxito.

La diversidad de centros que funcionan como Comunidades de Aprendizaje también reside en lo referente a los proyectos que estos centros pueden aplicar más allá del conjunto de Actuaciones Educativas de Éxito que constituyen el proyecto de Comunidades de Aprendizaje. Cuando un centro se transforma en Comunidad de Aprendizaje, puede decidir seguir las fases del proceso de transformación, implementar algunas o todas las Actuaciones Educativas de Éxito, y mientras tanto seguir con otros proyectos educativos y sociales que ya venía implementando y añadir otros nuevos. Esos otros proyectos pueden referirse a metodologías de enseñanza y aprendizaje, a aspectos vinculados a la mejora de la convivencia escolar, programas de mejora de la salud infantil, consumo responsable, etc. Algunos de esos proyectos tendrán más o menos evidencias en la investigación que sustenten sus prácticas, darán mejores o peores resultados en relación al rendimiento académico del alumnado y a otros aspectos. La continuidad o no de los mismos es una decisión que toma el centro y podrá ir variando a lo largo del tiempo. Es decir, en un centro de educación primaria donde se inicia el proyecto de Comunidades de Aprendizaje pueden convivir durante los dos primeros años éste proyecto y dos proyectos más diferentes a Comunidades de Aprendizaje, y el tercer año Comunidades de Aprendizaje sólo coincidir con un proyecto, uno de los que ya se implementaban u otro nuevo.

Por ejemplo, algunas Comunidades de Aprendizaje de España están combinando las Actuaciones Educativas de Éxito con proyectos relativos a la promoción de la lectura, como es el programa “Padrinos de lectura”. Este programa consiste en que estudiantes de niveles superiores apadrinan a estudiantes de cursos iniciales para compartir actividades de lectura de cuentos, poesía, etc. Esto no es una Actuación Educativa de Éxito y llevar a cabo esta actuación no define la escuela o instituto como Comunidad de Aprendizaje, pero es una actividad que coincide en el mismo centro que aplica Actuaciones Educativas de Éxito. Incluso a veces la biblioteca tutorizada que organizan algunas Comunidades de Aprendizaje es un espacio dentro del cual se pueden llevar a cabo actividades de otros proyectos, como podría ser lectura compartida entre parejas de estudiantes como parte de programas del tipo “padrinos de lectura”. Otros ejemplos pueden ser centros educativos que funcionan como Comunidades de Aprendizaje e implementan proyectos de innovación relativos a Tecnologías de la Información y la Comunicación (TIC), audiovisuales, biblioteca, proyectos de innovación en la enseñanza y el aprendizaje de la lengua extranjera, etc. En este sentido, el mejor caso disponible es el del Centro Rural Agrupado Ariño-Alloza, en la provincia de Teruel (España). Estos dos centros de educación infantil (3-6 años) y educación primaria, ubicados en una zona minera, aplican desde hace años un programa de digitalización de las escuelas que implica, entre otros, el uso de las TIC como herramientas de enseñanza y aprendizaje. El profesorado enseña con pizarras digitales, se disponen de espacios virtuales compartidos entre profesorado y alumnado con los materiales de aprendizaje, el alumnado trabaja con PC Tablets más que con libros de texto, el profesorado incluso resuelve dudas a las y los estudiantes vía chat, etc. Todo esto son formas de trabajar que a veces suceden dentro de las propias Actuaciones Educativas de Éxito porque se tratan de metodologías concretas (y las AEE no lo son) y, al hacerlo así, sus resultados son positivos. En el caso de la Comunidad de Aprendizaje Ariño-Alloza se manifiesta que la clave no es aumentar la presencia de las TIC en las aulas y en otros espacios de aprendizaje sino utilizarlas como herramientas de aprendizaje dentro del marco de las Actuaciones Educativas de Éxito que aumentan las interacciones entre

iguales y entre estudiantes y personas adultas con perfiles diferentes ([Gatt & Sordé, 2012](#)).

Tal y como se ha señalado en la literatura científica, esta confluencia de proyectos en un mismo centro educativo puede ser más o menos profunda en el sentido de suponer un trabajo coordinado o simplemente coincidir en el mismo espacios sin necesidad de coordinar ninguna acción, en este segundo sentido, la convergencia es más superficial ([O'Brien, 2011](#)). Asimismo, la investigación sobre otros centros educativos ha identificado como la confluencia de proyectos puede responder a una combinación de necesidades e intereses “desde abajo” y necesidades e intereses “desde arriba”. Esto se ha conocido también con el nombre de “ensamblaje global”, la colección de ideas y prácticas que emergen en la intersección entre formas globales (por ejemplo, actividades propias de legislación de reforma educativa) y elementos situados socio-culturalmente ([Tan, 2012](#)). En otras ocasiones diferentes proyectos coinciden en un mismo centro como colaboraciones entre diferentes espacios y agentes educativos, como pueden ser escuelas y museos con el objetivo de potenciar la educación científica del alumnado. Las variables que influyen en que ese tipo de colaboraciones sean fructíferas están siendo objeto de reciente análisis ([Kiesel, 2010](#)).

En este artículo se profundiza en la confluencia de Comunidades de Aprendizaje con otros proyectos a través del caso concreto de centros educativos en Perú y Guatemala que llevaban a cabo el sistema de alternancia, lo que les conduce a denominarse Centros Rurales de Formación por Alternancia (CRFA). En este caso, la confluencia no es casual, sino que la aplicación de Comunidades de Aprendizaje responde a la necesidad de aumentar el rendimiento académico del alumnado, aspecto al que el sistema de formación por alternancia no estaba respondiendo al nivel necesario.

Dos Proyectos que Confluyen en un mismo Centro: Comunidades de Aprendizaje y los Centros Rurales de Formación por Alternancia

Comunidades de Aprendizaje

Comunidades de Aprendizaje es un proyecto de transformación social y educativa basado en la investigación científica y que tiene un doble objetivo: mejorar el rendimiento académico de todo el alumnado y la convivencia. El proyecto consiste en un conjunto de Actuaciones Educativas de Éxito que han sido avaladas por la Comunidad Científica Internacional y que son las herramientas concretas por medio de las cuales centros educativos desde la educación infantil a la educación de personas adultas están consiguiendo superar el fracaso escolar, mejorar los niveles de rendimiento académico de todo el alumnado así como la convivencia y las relaciones familia-escuela-comunidad en diversidad de contextos socio-económicos, geográficos, culturales y lingüísticos (Racionero, Ortega, García, & Flecha, 2012).

El proyecto empezó en el año 1978 en la Escuela de Personas Adultas de La Verneda-Sant Martí (Sánchez-Aroca, 1999), una escuela de adultos ubicada en un barrio obrero de Barcelona. Fue Ramón Flecha quien diseñó el proyecto y lideró la transformación de la escuela de La Verneda-Sant Martí en Comunidad de Aprendizaje (Giner, 2012). El modelo de “Verneda” adquirió rápidamente reconocimiento internacional; fue visitado por Paulo Freire y otros pedagogos de prestigio mundial, siendo la primera experiencia educativa española en ser publicada en la Harvard Educational Review (Sánchez-Aroca, 1999). En el año 1995 Ramón Flecha realizó las treinta horas de formación (sensibilización) de la primera escuela de educación infantil y primaria, el Ruperto Medina, en Bilbao, que decidió iniciar el proyecto de Comunidades de Aprendizaje en la educación obligatoria (Giner, 2011). Posteriormente se añadió una segunda escuela de educación infantil y primaria en el País Vasco y a partir de ahí el proyecto se extendió a Aragón, Catalunya y progresivamente a lo largo del tiempo al resto de Comunidades Autónomas de España, con gobiernos de tendencias políticas diferentes. En la actualidad el proyecto se implementa en unas 200 escuelas (el número crece cada año) desde la educación infantil de primer

ciclo (0-3 años) a la educación de personas adultas, en escuelas de titularidad pública y privada, en escuelas que inicialmente tenían altos niveles de fracaso escolar y en escuelas que ya alcanzaban buenos resultados en el rendimiento académico de su alumnado y querían mejorarlo.

La multiplicación del proyecto se debe a los resultados que se están consiguiendo en todos los centros educativos que implementan las Actuaciones Educativas de Éxito: aumento del rendimiento académico y mejora de la convivencia, incluyendo también otras mejoras como en el desarrollo emocional (Flecha & Soler, 2014; Gómez, Munté & Sordé, 2014; Oliver, 2014). Dados estos resultados, pudiendo incluso cambiar la situación de exclusión de un barrio ghetto (Padrós, García, De Mello, & Molina, 2011), el Council of the European Union (2011a, 2011b) ya ha recomendado el proyecto de Comunidades de Aprendizaje como vía para superar el abandono y el fracaso escolar en Europa. Recientemente, la Organization for Economic Cooperation and Development (OECD, 2012) publicó un informe en el que se identifican las escuelas que son Comunidades de Aprendizaje como un modelo exitoso de innovative learning environment.

En las Comunidades de Aprendizaje, profesorado, familias y otros miembros de la comunidad se han comprometido a colaborar e implementar sólo actuaciones educativas que se basan en evidencias de éxito. Las escuelas que son Comunidades de Aprendizaje inician un proceso de transformación para implementar esas actuaciones partiendo de los recursos ya existentes en la escuela y la comunidad. El proceso de transformación de una escuela en Comunidad de Aprendizaje consta de las siguientes fases:

1. *Sensibilización*: en esta fase las personas investigadoras explican al profesorado y las familias las bases científicas de Comunidades de Aprendizaje. Se detallan en qué consisten las AAE y se dan evidencias que demuestran cómo consiguen la mejora de los resultados académicos y la convivencia. Estas evidencias son debatidas por todas las personas participantes generando una reflexión sobre las mejores maneras de implementar las AEE en su escuela.

2. *Toma de decisión*: al finalizar la sensibilización, toda la comunidad educativa, profesorado, familias, estudiantes y otros agentes, de manera democrática decide si llevará a cabo o no el proyecto.
3. *Sueño*: una vez se ha tomado la decisión de llevar a cabo el proyecto de Comunidades de Aprendizaje, todos los actores implicados sueñan la escuela ideal que quieren, bajo el lema “el aprendizaje que queremos para nuestros hijos e hijas es el aprendizaje que queremos para todos los niños y las niñas”. El sueño está guiado por objetivos de igualdad y una sociedad de la información al alcance de todas las personas, sin diferencia.
4. *Selección de prioridades*: la comunidad revisa los sueños y realiza una selección de prioridades partiendo del conocimiento de la realidad y los medios con los que se cuenta en ese momento. Se organizan los sueños en actuaciones que se llevarán a cabo primero a corto plazo, pero también las que se implementarán a medio y largo plazo. Entre esas actuaciones las fundamentales son las Actuaciones Educativas de Éxito, el conjunto de actuaciones educativas referentes a organización escolar, participación de familiares y de la comunidad en la escuela, organización de los espacios de aprendizaje, formación de familiares, aceleración del aprendizaje de la lectura, etc, que han demostrado dar mejores resultados hasta el momento: los Grupos Interactivos, las Tertulias Literarias Dialógicas, la Formación de Familiares, la Participación Educativa de la Comunidad, el Modelo Dialógico de Prevención y Resolución de Conflictos y la Formación Dialógica del Profesorado.
5. *Planificación*: una vez se han seleccionado las prioridades, se forman las comisiones mixtas de trabajo en una asamblea donde participa toda la comunidad. Las comisiones mixtas están formadas por profesorado, familias y otros miembros de la comunidad; todas las personas tienen la misma validez, autonomía y capacidad de decisión y sus acuerdos tienen que corroborarse en el Consejo Escolar. Algunos ejemplos de comisiones mixtas son la comisión de aprendizaje, la comisión de voluntariado, la comisión de infraestructura, etc. En estas comisiones, familiares, miembros de la

comunidad y profesorado toman decisiones sobre cómo hacer realidad los sueños y las prioridades establecidas en relación a esos diferentes temas centrales para el centro educativo. En ocasiones, en estas comisiones también las familias y miembros de la comunidad evalúan la consecución de los objetivos establecidos para cada comisión así como los resultados conseguidos en el rendimiento académico del alumnado del centro como forma de evaluar el rendimiento de la escuela o instituto.

Las Comunidades de Aprendizaje son también centros educativos cuya prioridad son los resultados. Las Actuaciones Educativas de Éxito que aplican estos centros educativos así como elementos del propio proceso de transformación en Comunidades de Aprendizaje, por ejemplo la fase del sueño, buscan la mejora de los resultados en aprendizaje, en desarrollo emocional, en convivencia, etc. Comunidades de Aprendizaje se aleja de la batalla metodológica que ha centrado los esfuerzos en los procesos de enseñanza y aprendizaje en lugar de en los resultados que diferentes actuaciones educativas y proyectos producen. En Comunidades de Aprendizaje se aplica aquello que da los mejores resultados según los últimos avances de la investigación científica, y no aquello que es diferente a lo que se ha hecho siempre. El objetivo no es implementar lo que rompe más con enfoques tradicionales de enseñanza sino aquello de lo que tenemos evidencias que sirve más para superar el fracaso escolar y mejorar el rendimiento académico de todo el alumnado. La prioridad del proyecto de Comunidades de Aprendizaje es la igualdad de resultados. También en este sentido, Comunidades de Aprendizaje persigue la transformación de niveles previos de aprendizaje y del contexto socio-cultural y en este sentido se aleja totalmente de toda orientación adaptadora de la enseñanza y de la educación a las dificultades en el contexto o al nivel cognitivo previo en cada niña o niño, chica o chico. En este sentido, Comunidades de Aprendizaje está en consonancia con la teoría socio-cultural vygostkyana (Vygotsky, 1978) y se centra en la transformación de las interacciones sociales como vía para el desarrollo psicológico y social en todos los contextos socio-económicos y socio-culturales. Concreciones de esta premisa transformadora se observan en actuaciones como las Tertulias

Literarias Dialógicas, en las que todo el alumnado sin diferencia lee los clásicos de la literatura universal, o en los Grupos Interactivos, en los que ningún estudiante sale del aula en grupos de nivel con diferentes objetivos curriculares por ninguna razón socio-económica o socio-cultural. Desde cualquier diferencia individual, grupal o contextual todo el alumnado debe acceder a los mismos resultados de aprendizaje; Comunidades de Aprendizaje es el conjunto de actuaciones científicas que hace ese sueño posible para todas las personas.

El Movimiento de los Centros de Educación por Alternancia (CEFFA)

El movimiento educativo internacional de la Asociación Internacional de Movimientos Familiares de Educación Rural (AIMFR) agrupa a centros de educación por alternancia denominados Centros Educativos Familiares de Formación por Alternancia (CEFFA) , de cerca de 40 países donde adquieren distintos nombres. En el caso de Perú estos centros se conocen como Centros Rurales de Formación por Alternancia (CRFA) y en Guatemala Institutos por Cooperativa de Enseñanza Familiar por Alternancia (ICEFAT). Todos ellos tienen su origen como alternativa educativa en Francia en los años 1935-37, respondiendo a una demanda de educación adecuada y pertinente para los jóvenes del medio rural. Actualmente están impartiendo formaciones que van desde la educación secundaria o básica (13-15 años) pasando por la enseñanza media, bachilleratos, formación profesional y universitaria.

Objetivos, bases y fundamentos de los CEFFA.

El objetivo general institucional de los CEFFA es conseguir la promoción y el desarrollo de las personas y de su propio medio social, a través de actividades de formación integral principalmente de adolescentes, pero también de jóvenes y adultos. Las finalidades de los CEFFA se basan en dos ejes principales.

En primer lugar, la Formación Integral de la personas, acompañándolas en la construcción de sus proyectos personales, profesionales, sociales, de vida, etc. No se trata simplemente de impartir cursos de formación

profesional y/o de formación general con metodologías o actividades más o menos adecuadas, sino que se trata de una visión holística, integral, dónde la persona se forma en todos los ámbitos -técnico, profesional, intelectual, social, humano, ético, espiritual - como ser humano único e irrepetible, como persona actor y autor de la sociedad en la que vive.

En segundo eje es el desarrollo comunitario, local y territorial. Esta segunda finalidad unida indisolublemente a la finalidad anterior, es una consecuencia y una necesidad. Siguiendo a André Duffaure (1985), se entiende que si el medio local no progresa, no se desarrolla, no evoluciona de forma conjunta con ellos se convierte en excluyente y a los jóvenes que tienen acceso a formación, se les está obligando (forzando) a marcharse. Los CEFFA pretenden que los jóvenes y adultos en formación se conviertan en actores de su propio desarrollo y del desarrollo del territorio en el que se implanta sin excluir de ninguna forma la necesaria calidad que permita a todos los formados proseguir sus estudios y sus proyectos de vida. Los medios de que disponen los CEFFA para poder conseguir esas finalidades, son:

- *La Alternancia*. Es una metodología pedagógica que ofrece respuestas pertinentes a un sistema escolar que se muestra inadecuado en ocasiones. La alternancia supera constantemente las corrientes y modas docentes existentes y responde a la necesidad de adecuación de la educación a los retos de la sociedad, de las familias y de los jóvenes. Se trata de una alternancia integrativa, interactiva entre escuela y medio social y profesional con periodos e interacciones entre uno y otro ámbito, que parte de la experiencia y que incluye la implicación de todos los actores de la formación, por lo que la calificación de sistema es más adecuada (Gimonet, 1988).
- *La Asociación Local de Base*. Constituida principalmente por familiares, junto con otras personas del sector que se adhieren a sus principios, y que son los gestores del proyecto, los actores de su propio desarrollo.

Podemos afirmar que los cuatro pilares de los CEFFA, son las bases, la especificidad propia del Movimiento Internacional Educativo y de Desarrollo que son los CEFFA, sus “características propias e irrenunciables” -aquello que una institución educativa debe tener necesariamente para poder ser considerada como CEFFA-, y consisten en unos fines definidos que se consiguen con unos medios precisos. Pero al mismo tiempo son elementos a desarrollar, a adaptar a y contextualizar en cada realidad social, a cada época y situación.

La formación por alternancia tiene una amplia presencia mundial con presentaciones y aplicaciones múltiples y diversas que van desde formas binarias (trabajo-escuela) como el sistema dual alemán, hasta formas mucho más complejas como sería este caso de los CEFFA donde se trabajan otros elementos que infieren en los objetivos y resultados como se muestra anteriormente. Esta diversidad ha llevado a realizar investigaciones (Bourgeon, 1979) sobre las alternancias con calificaciones o denominaciones tipo “verdadera”, “falsa” o “aproximada”, que no nos parecen en la actualidad pertinentes dada la riqueza y evolución del mundo educativo. Escogemos en este caso la denominación de especificidad de la alternancia en los CEFFA con todos los elementos del sistema, sin entrar a cuestionar las otras prácticas de la misma denominación.

Hoy se trabaja con esta fórmula de forma significativa en más de 20 países de Europa, América, África y Asia, aunque existen experiencias aisladas y poco representativas en otros lugares que la sitúan en de cerca de 40 naciones. Su ámbito de actuación se define con las siguientes características:

- a. Adecuación al sistema y currículo educativo de cada país, según los niveles y diplomas impartidos.
- b. Distintos niveles de formación. Al estar basado en la experiencia se imparten en enseñanzas regladas, que van desde los 12-13 años de edad con los diplomas correspondientes a las formaciones generales, pasando por la formación profesional y bachilleratos, hasta la formación superior universitaria, incluyendo la formación de adultos y la profesionalización a lo largo de la vida.

- c. Inicialmente se aplicaba casi exclusivamente a personas del medio rural y actualmente se forman personas de cualquier procedencia y ámbito social, aunque mayoritariamente se trabaja con públicos que tienen dificultades de acceso a la llamada educación “formal” institucional.
- d. Además de niveles académicos distintos, igualmente se está aplicando en más de 40 profesiones incluyendo la orientación profesional.

Comunidades de Aprendizaje en Escuelas que Funcionan con el Sistema de Alternancia. El Caso de Perú y Guatemala.

Los resultados del sistema de los CEFFA son evidentes en países donde existen controles y evaluaciones científicamente probadas, como sería el caso de Francia en donde los exámenes son nacionales y no importa tanto la metodología aplicada o la carga horaria, como los resultados de los alumnos en los exámenes, ya que se comparan resultados y no aplicaciones de métodos. Por el sistema educativo propio en muchos países, la evaluación la hace el profesor en la escuela siendo esta quien otorga por delegación los diplomas después de las calificaciones. Pero la constatación -cuando llegan las pruebas o evaluaciones nacionales e internacionales- es que la educación en el medio rural obtiene las peores calificaciones. Esta forma de exclusión viene a veces envuelta en un aspecto muy positivo que aporta el sistema de alternancia que es la capacidad de emprender y de liderazgo que les aportó la formación. Sin embargo, solo en casos excepcionales se obtuvieron resultados académicos de excelencia.

En abril del 2013, el First International Scientific Seminar in Learning Sciences, organizado en Barcelona, reunió a figuras de primer nivel mundial en educación. En el Seminario, el Dr. Arbós y el Dr. “autor”, quienes participan activamente en el desarrollo y asesoramiento a centros de alternancia alrededor del mundo, conocieron las Comunidades de Aprendizaje a través del propio Dr. Ramón Flecha, ponente en el seminario. Ramón Flecha y Marta Soler (directora del CREA, centro de investigación en la Universitat de Barcelona que desarrolla y avala científicamente el proyecto de Comunidades de Aprendizaje), presentaron las evidencias

científicas de Comunidades de Aprendizaje y de las Actuaciones Educativas de Éxito, referenciando todas las investigaciones científicas internacionales al respecto y dando datos cuantitativos y cualitativos de las mejoras que ya muchos centros educativos en diversos contextos estaban viviendo gracias a Comunidades de Aprendizaje.

Estos resultados produjeron gran interés en el Dr. Arbós y el Dr. “autor” por el proyecto, quienes después de la sesión en el Seminario, visitaron la Comunidad de Aprendizaje Mare de Déu de Montserrat, en Terrassa (Barcelona). Después de conocer las evidencias científicas y de ver en la práctica las transformaciones tan profundas que estaban viviendo estudiantes, familiares y profesorado en barrios donde sería fácil haber perdido la esperanza, se vio la oportunidad y la necesidad de aplicar el proyecto de Comunidades de Aprendizaje en la educación rural en países en vías de desarrollo donde AMIRF tiene intervención.

Dentro del movimiento de la alternancia de los CEFFA se escogieron dos realidades para hacer una primera sesión de información sobre Comunidades de Aprendizaje. Primero fue en Perú en septiembre del 2013 y posteriormente en Guatemala en el mes de noviembre del 2013. En Perú, el Dr. Arbós y el Dr. “autor” propusieron aprovechar una oportunidad formativa y reorientar unos Talleres de directivos de las asociaciones CRFA, directores de los CRFA y funcionarios de la Dirección de Educación Secundaria del Ministerio de Educación y centrar esos talleres en las Bases científicas de las Comunidades de Aprendizaje y las Actuaciones Educativas de Éxito. Los talleres estaban promocionados por el Ministerio de Educación y la Unión Nacional de Centros Rurales de Formación en Alternancia y fue PRORURAL, la asociación civil que impulsa la constitución y desarrollo de Centros Rurales de Formación en Alternancia (CRFA) en Perú, la responsable de la organización de este taller. Son 46 los CRFAs que actualmente funcionan en 12 regiones del Perú y donde estudian más de 3700 alumnos. Una investigadora de CREA fue encargada de la formación dentro del marco de estos talleres e impartió casi 30 horas de bases científicas del proyecto de Comunidades de Aprendizaje, en un ambiente de gran trabajo, compromiso, diálogo y creciente ilusión. Durante las sesiones, se iban haciendo intervenciones para establecer diferencias entre ambos proyectos, conexiones entre actuaciones

de uno y otro, siempre aclarando que eran proyectos con identidades diferentes, que no se trataba de cambiar el sistema de alternancia sino de que en esos mismos centros se implementaran además otras actuaciones para cumplir con el objetivo de mejorar los resultados académicos del alumnado. Ya el último día de la formación casi una decena de CRFAs se mostraron interesados en implementar en sus centros el modelo de Comunidades de Aprendizaje. Meses más tarde, se seleccionaron tres CRFAs de tres zonas diferentes del Perú como parte del grupo de centros educativos en los que iniciar de forma piloto el proyecto de Comunidades de Aprendizaje bajo la coordinación del Instituto Natura con el aval científico del CREA. Así, en febrero del 2014 se llevaron a cabo las sensibilizaciones de cuatro CRFAs en Piura y Cuzco, a cargo de dos investigadoras del CREA. Personal de PRORURAL también participó en la formación sobre los fundamentos científicos organizada por Natura y que se realizó en la Universidad de Barcelona a cargo de Ramón Flecha, Marta Soler, Lúdia Puigvert y otro personal investigador del CREA. Como parte de esta formación, las y los participantes también visitaron una Comunidad de Aprendizaje en Barcelona.

En noviembre del 2013 empezó el proceso de introducción de Comunidades de Aprendizaje en Guatemala, en centros cuyo seguimiento en el país corre a cargo de la ONG FUNDAP: Fundación para el Desarrollo Integral de Programas Socioeconómicos, y quien se encarga de asesorar a los centros que siguen el sistema de alternancia. En concreto, es la sección PEVI (Programa de Educación Integral para la Vida) de FUNDAP la que se está encargando de promover el conocimiento del proyecto de Comunidades de Aprendizaje en algunos de los centros que asesoran con el objetivo de mejorar los resultados en rendimiento académico de niñas, niños y jóvenes guatemaltecos de ámbito rural. El Dr. Albert Arbós y el Dr. “autor” promovieron como en Perú que unos talleres ya planificados de “sensibilización y desarrollo de la calidad educativa en los centros de educación infantil, primaria, secundaria y de adultos” organizados por FUNDAP PEVI se centrasen en el proyecto de Comunidades de Aprendizaje. De esta forma, en noviembre se realizaron varios días de formación intensiva en las “Bases científicas de las Comunidades de Aprendizaje y las Actuaciones Educativas de Éxito” en Quetzaltenango, a

cargo de nuevo de CREA. Los participantes fueron maestras, maestros, representantes de la administración educativa, profesores de universidad y representantes de familiares. Más tarde, a finales de abril y principios de mayo del 2014 se realizó una segunda formación incluso más focalizada en Comunidades de Aprendizaje, también en Quetzaltenango, con los mismos contenidos que una sensibilización pero sin serlo, ya que era para personal de varios centros educativos que podían convertirse en las primeras Comunidades de Aprendizaje de Guatemala. Después de esta segunda formación, se hizo una propuesta de tres posibles centros piloto, entre los centros representados asistentes a la formación, uno de ellos de secundaria y que sigue el sistema de alternancia

En el momento actual se están organizando las sensibilizaciones a cargo del CREA en los centros escogidos como piloto. La idea es empezar en muy pocos centros educativos, asegurar la correcta implementación de las Actuaciones Educativas de Éxito en cada uno de ellos, recibir el asesoramiento adecuado y asegurar buenos resultados sobre la base de los que posteriormente expandir el proyecto a otros centros educativos de Guatemala. Asimismo, se está trabajando con el CREA para organizar la formación de formadores, esencial para el correcto seguimiento de los centros educativos que inicien el proyecto de Comunidades de Aprendizaje.

Tanto en Perú como en Guatemala, el entusiasmo inicial de los que participaron en las primeras sesiones informativas se vio incrementado al conocer con mayor detalle las Actuaciones Educativas de Éxito e historias de vida de personas con nombres y apellidos que han mejorado sus vidas a raíz del proyecto. Fue necesario aclarar que no era lo mismo lo que se estaba haciendo como centros con sistema de alternancia, que lo que se podría (y debía) hacer si se convertían en Comunidades de Aprendizaje. Al mismo tiempo, la participación de las familias y la comunidad, la formación y dedicación de los profesores, ciertos instrumentos de la pedagógica de la alternancia, el sistema de formación de profesores y de familias, pueden facilitar la aplicación de las Comunidades de Aprendizaje.

Es destacable también que en las sesiones de formación se presentó un temor: pensar que se pretendía cambiar el sistema actual de la alternancia por otro, a lo que las familias y el profesorado no estaban dispuestos. Al descubrir con las formaciones iniciales que se podrían añadir las

Actuaciones Educativas de Éxito a las actividades ordinarias del centro, que se trataba de hacer en el mismo centro proyectos diferentes, que incluso en ciertas cuestiones había sinergias enriquecedoras, estos temores se fueron diluyendo en la mayoría de los casos, quedando otros a la expectativas de la aplicación y de los resultados de la misma.

El objetivo está definido con certeza: “mejorar los resultados académicos de los jóvenes estudiantes” para evitar su exclusión. Este es el deseo de las familias, de los formadores y sobretodo de los jóvenes de Perú y Guatemala. En ambos países se cuenta con la participación de las autoridades académicas locales y con las universidades. En Perú se han tenido reuniones de trabajo con el Instituto Pedagógico Nacional Monterrico y en Guatemala se impartió una breve conferencia en la Maestría de Formación de Profesorado Universitario de la Universidad de San Carlos. También en ambos casos, profesores universitarios e instituciones educativas como es el caso de UNESCO Guatemala, mostraron su interés y están interesados en la formación e investigación al respecto.

Además, la implementación del proyecto de Comunidades de Aprendizaje en los centros de alternancia en Perú y Guatemala está contando con el apoyo de personas y entidades que se encargan de acompañar y hacer seguimiento del proceso para asegurar una correcta implementación, la no adulteración de las Actuaciones Educativas de Éxito, no confundir las diferentes actuaciones de cada proyecto, etc, como son el personal de las mencionadas FUNDAP en Guatemala y PRORURAL en Perú, el Dr. Albert Arbós, profesor de la UIC y presidente de APDIF, quien ha iniciado un seguimiento y evaluación con la colaboración de ambas entidades y del CREA. CREA es, en todos los casos, el centro de investigación que avala científicamente el proceso en todos estos centros educativos.

En el poco tiempo de esta confluencia entre Comunidades de Aprendizaje y el sistema de alternancia se han conseguido impactos personales y socio-culturales muy importantes. Entre otros, se están leyendo los clásicos de la literatura universal en comunidades del Amazonas en Perú, y en Guatemala toda una comunidad está llena de brillo en los ojos deseosa del inicio del proyecto como herramienta de

consecución de un nuevo mundo posible también para sus hijas e hijos. Estas son enormes motivaciones para seguir avanzando en esta confluencia.

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Aprendizaje e Interacciones en el Aula

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Review

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El libro *Aprendizaje e Interacciones en el Aula* plasma las contribuciones más relevantes acontecidas en el Congreso Científico Internacional sobre Aprendizaje e Interacciones en el Aula (LeCI), organizado de modo conjunto entre CREA (*Community of Research on Excellence form All*) y la Consellería de Educación, Investigación, Cultura y Deporte de la Generalitat Valenciana. Su objetivo es poner al alcance de toda la sociedad los avances en investigación sobre cómo las personas pueden aprender desarrollando al máximo sus potencialidades, tanto en la dimensión cognitiva, social y emocional. En él se muestran las contribuciones de impacto, avaladas por la comunidad científica, que desde la Universidad de Cambridge se han desarrollado en relación a las interacciones que mejoran el aprendizaje y el desarrollo del alumnado.

El gran aforo reunido en este congreso con 1300 investigadores, profesores y demás miembros de la comunidad educativa (y con más de 4000 inscripciones) muestra claramente la necesidad imperante de ofrecer actuaciones en las escuelas con evidencias científicas que las respalden y que ofrezcan oportunidades que promuevan la calidad en el aprendizaje, dejando atrás discursos basados en la especulación.

El libro está estructurado de un modo sencillo y claro. Comienza con una justificación del porqué dedicar un congreso a las interacciones en el aula, presentando a sus conferenciantes principales: Neil Mercer, Profesor de Educación en la Universidad de Cambridge, entre otros cargos; Linda Hargreaves, Profesora Emérita de Pedagogía en la misma universidad y Rocío García Carrión, Investigadora Marie Curie de la Comisión Europea

en la Facultad de Educación de dicha universidad e investigadora Ikerbasque de la Universidad de Deusto. A continuación, establece cuatro capítulos: *La importancia educativa del habla* de Neil Mercer; *Yo misma no podría haberlo hecho mejor: Niños y profesores aprendiendo de las interacciones en clase* de Linda Hargreaves; *¿Qué facilitó que casi todo el mundo participara en el diálogo?: Interacciones transformadoras en tertulias literarias dialógicas* de Rocío García Carrión, y, por último, Simposio. *Aprendizaje e interacciones en el aula* de Marta Soler.

El primer capítulo explica la importancia educativa del habla; cómo promoviendo el papel del lenguaje en el aula mejoraremos la calidad de la educación ya que no es simplemente una herramienta de comunicación sino un medio para pensar colectivamente y crear conocimiento. Se evidencia mediante estudios, como los profesores que obtenían mejores resultados académicos en sus aulas, concebían la educación como un proceso de comunicación social fomentando interacciones entre profesorado y alumnado, favoreciendo respuestas razonadas y elaboradas dando lugar al concepto conversación exploratoria.

En el segundo capítulo se explica qué es y cómo llevar a cabo aulas interactivas en las que se favorezca el diálogo igualitario repercutiendo positivamente en el aprendizaje. Muestra varios proyectos recientes que evidencian como crear las condiciones adecuadas para ello y los cambios producidos en el modo de enseñar.

En el tercer capítulo, la investigadora concreta una actuación de éxito: tertulias literarias dialógicas, y, siguiendo a Flecha (2000) detalla bajo que principios se producirá la transformación necesaria para alcanzar el objetivo: diálogo igualitario, solidaridad en las aportaciones y utilización de libros de la literatura universal que planteen un reto cognitivo. Esta transformación provocará no sólo mejoras en los resultados académicos, sino que influirá en la capacidad para expresar y comprender los propios sentimientos y los ajenos.

En el último capítulo se establece un coloquio entre los conferenciantes profundizando en algunos de los temas tratados y clarificando dudas: necesidad de mejorar la evaluación del impacto de las interacciones; adquisición no sólo de contenidos curriculares sino de razonamiento,

valores y comprensión de emociones propias y ajenas; y como la diferencia es fuente de riqueza; entre otros.

Se trata de una interesante exposición con apoyo teórico, en la que se plantean casos reales de numerosos proyectos implementados y avalados científicamente tanto por los conferenciantes citados como por otros investigadores perfectamente referenciados. Todo ello dota de un gran valor a esta obra, cuya lectura se convierte en una oportunidad para conocer y acceder a las evidencias científicas que demuestran el impacto que ciertas interacciones y el diálogo igualitario -con el profesor y entre el propio alumnado- tienen en el aprendizaje de contenidos curriculares, pero también, en valores, sentimientos y emociones.

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