

REVISTA INTERNACIONAL DE INVESTIGACIÓN E INNOVACIÓN EDUCATIVA

Alberto Sarasola Fernández, Evaristo Barrera-Algarín, Francisco Caravaca-Sánchez & José Luis Sarasola Sánchez-Serrano. Cinco décadas de publicaciones científicas en Trabajo Social: Consolidación de la investigación clínica y experimental.

Cinco décadas de publicaciones científicas en Trabajo Social: Consolidación de la investigación clínica y experimental

Five decades of scientific publications in Social Work about clinical and experimental research

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#### RESUMEN.

Este artículo analiza cómo el Trabajo Social ha sido capaz de conectar la práctica profesional con la generación de conocimiento. El Trabajo Social tiene la capacidad de generar conocimiento científico directamente a partir de su intervención profesional, y específicamente, a través de la evaluación de su intervención profesional. Para ello, el Trabajo Social ha utilizado durante décadas diferentes metodologías y procedimientos científicos y ha consolidado su generación de conocimiento científico. En este caso nos referimos al uso de diseños experimentales y cuasi-experimentales, y a los llamados Diseños de Evaluación de Caso Único (SCDE). Se describen sus diversos tipos y potencialidades para la generación directa de conocimiento científico a partir de la evaluación de la práctica profesional. Método: Analizamos el nivel de publicaciones sobre experimentación y SCDE utilizando la base de datos Scopus, trabajando con datos exportados desde 1960 hasta el presente. Y estructurado por 14 variables. Hallazgos: Hay un aumento significativo en el número de publicaciones sobre "Experimento en Trabajo Social" y "Diseños de Evaluación de Caso Único en el Trabajo Social", especialmente en la última década. Los Estados Unidos y el Reino Unido son los mayores productores de experimentación en Trabajo Social. Aplicaciones: Concluimos que el Trabajo Social ha sido capaz de utilizar estas estrategias metodológicas de investigación para consolidar su capacidad de investigación y generación de conocimiento, tanto para la creación de teoría como para la intervención profesional.

#### PALABRAS CLAVE.

Trabajo Social, Diseños Experimentales, Diseños de Evaluación de Caso Único, Publicaciones Científicas.





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#### ABSTRACT.

This article analyzes how Social Work has been able to connect professional practice with the generation of knowledge. Social Work has the capacity to generate scientific knowledge directly from its professional intervention, and specifically, through the evaluation of its professional intervention. For this, Social Work has used different scientific methodologies and procedures for decades and have consolidated its generation of scientific knowledge. In this case we refer to the use of experimental and quasi-experimental designs, and the socalled Single Case Evaluation Designs (SCDE). Their diverse types and potentialities for the direct generation of scientific knowledge from the evaluation of professional practice are described. Method: We analyze the level of publications about experimentation and SCDE using Scopus Database, working with data exported from 1960 to the present. And estructurated by 14 variables. Findings: There is a significant increase in the number of publications about "Experiment in Social Work' and 'Single-Case Evaluation Designs in Social Work', especially in the last decade. The United States and United Kingdom are the largest producer of experimentation in Social Work. Applications: We conclude that Social Work has been able to use these methodological research strategies to consolidate its capacity for research and generation of knowledge, both for the generation of theory and for professional intervention.

#### **KEY WORDS.**

Social Work, Experimental Designs, Single-Case Evaluation Designs, Papers.

### 1. Beginnings of research in Social Work, an introduce.

Social Work is a scientific discipline that currently enjoys great international impact, not only because of the number of prestigious periodicals that monopolize important positions in impact databases such as Scopus or Web of Science, but also because of its great scientific and academic production that we can observe in the number of research groups, research institutes and doctoral theses at international levels.

According to the contributions of Thyer (2001), the beginnings of the scientific organization in Social Work could be in 1865, which implies that previously the Social Work carried out scientific studies. In chronological terms, we find in 1865 the American Social Science Association (ASSA). It was a very positivist influenced by Comte's French Sociology, which focused on research topics linked to the first forms of social work. In 1879, from ASSA emerged the Conference of Charities, which in 1884 became the NCCC (National Conference of Charities and Correction), which would promote and finance social studies. In 1917, the NCCC was renamed the National Conference in Social Work. In 1957 it became the National Conference on Social Welfare. As early as 1949, the Social Work Research Group (SWRG) was created, from which the NASW (National Association of Social Work) was born. The SWRG, through Ernest Greenwood, enunciated the eight types of research content in Social Work: Determination of the need for social services; Evaluation of the adequacy and effectiveness of services; Investigation of the content of the processes; Investigation of the experience required to carry out the different operations; Validation of theory and concepts; Development of methodology and instruments; Investigation of the development and validity





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of programs, services and concepts; Translation and testing of theory and knowledge taken from other fields. (Acero, 1988, p. 36)

On the other hand, the National Association of Social Work is one of the largest organizations of professional social workers in the world. It was founded in 1955 through the merger of seven social work organizations (NASW, 2021): American Association of Social Workers, American Association of Medical Social Workers, American Association of Psychiatric Social Workers, National Association of School Social Workers, American Association of GroupWorkers, Association for the Study of Community Organization, and Social Work Research Group (SWRG).

The NASW supports scientific, philanthropic, and educational activities, provides technical advice looking for defender the NASW Code of Ethics. NASW works to shape legislation and public policy that protects and strengthens the social work profession; promotes health, welfare and education; or in some way strengthens opportunities and social supports for individuals and families. And NASW provides extensive continuing education programs, including professional development conferences, publishing numerous scholarly reference materials

As we can see, it is one of the largest promoters of social work research and scientificity in

Later, in 1994, the Society of Social Work and Research was created. This organization is strongly oriented towards the scientific development of Social Work. It look for the implementation and dissemination of rigorous research that enhances knowledge about critical social work practice and social policy problems and advances social welfare practices and programs. For this reason, fosters a trans-disciplinary inter-professional support network of investigators conducting research on social work practice and social policy in the United States and around the world. In the end, this organization provides a formal recognition of significant contributions to social work-relevant research. (SSWR, 2021).

Finally, in 1993, the Institute for the Advancement of Social Work Research (IASWR) was created. It is an organization created to improve the research infrastructure of the profession. It also worked to strengthen the connections between research and the practice of social work, education and politics, including the representation of social work interests in the rest of the Scientific Community. Its influence made social work research expand significantly in the last 15 years. The number of social work researchers receiving research funding grew considerably; social work resources and supports within social work education programs have expanded. In this sense, the IASWR roles of facilitator, connector, conduit, trainer, consultant, and technical advisor have been central to these research achievements. (SWPI, 2021).

As these and other organizations have expanded their role in promoting research, social work researchers have achieved greater visibility and influence worldwide. But we must not forget the fundamental role of the Russell Sage Foundation. One of the oldest foundations in the United States, the Russell Sage Foundation, was established by Mrs. Margaret Olivia Sage in 1907 (RSF, 2021a) to improve living and social conditions in the United States. In its early years, the Foundation undertook major projects in low-income housing, urban planning, social work, and labor reform. The Foundation is now dedicated exclusively to strengthening the methods, data, and theoretical core of the social sciences as a means of diagnosing social







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problems and improving social policies. The Russell Sage Foundation is a foundation involved in the realization and dissemination of social science research. But most important is its connection to the origins of Social Work, first as a profession, and later as a scientific discipline. Mary Richmond joined the Rusell Sage Foundation in New York in 1907 as a researcher, and in 1917 this Foundation published her book 'Social Diagnosis' in which "for the first time a theory of Social Work was formulated based on more than seventeen years of research and direct work experience" (Kisnerman, Serrano, & Gómez, 1985, p. 34) (Acero, 1988, p. 35). In order to carry out this work, he studied 3,000 cases belonging to 56 institutions in three different cities. With Social Diagnosis "a first systematization of what this new profession would be is made" (Ander-Egg, 1985, p. 170). From here on, the Rusell Sage Foundation would continue to be especially linked to Social Work and its scientific diffusion; in fact, in 1930, it would provide space in its own building for the New York School of Social Work and provide key support to other budding social work schools throughout the country. (RSF, 2021b).

The scientific development of Social Work has had to face important challenges. Reid (1984) published a study on the development of research in the United States from the 1980s onwards. The study, using the 'Social Work Research and Abstract' database, established the following conclusions (See Table 1):

Table 1. Conclusions from Reid's study (1984).

Most research in Social Work (80%) is carried out in academic institutions.					
2. The main object of study was:	Individual, family and small group (behavioural and personality) problems, whether users or not.				
	Research on the characteristics, use and results of Social Services.				
	<ul> <li>Research on the T.S. profession itself: interdisciplinary aspects and the attitudes, orientations and qualifications of social workers.</li> </ul>				
	Studies on organizations, communities and social policy.				
3. Research in Social Work is	Increasing basic and technological knowledge				
oriented towards:	Provide significant and relevant results for intervention in Social Work				
	(1004) 0.4 (1000)				

Source: Own elaboration from Reid (1984) & Acero (1988).





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We have to consider, that like the rest of scientific Fields, Social Work is conditioned by its context, its relation with the rest of scientific disciplines and its professional action framework. Fortune and Reid (1999) indicate that the main elements that influence research in Social Work are: The professional perspective of social work, or the point of view, that includes a grouped set of beliefs that distinguish social work from other disciplines that deal with similar topics: The theoretical frameworks used as infrastructure for research; The type of research that is developed; The social and political context; And the care in the fulfillment of the ethical principles of the profession.

### 2. Types of research in Social Work.

In Social Work there is a great diversity and typologies of research. Barrera-Algarin (2020) says that Social Work is a scientific discipline that is oriented to the creation of scientific knowledge, and also to the generation of knowledge for social transformation, for the modification of reality (Social Work has a lot of similarities with Medicine). We can talk about 3 great research designs: Exploratories, more superficial and generic studies that try to approach a subject in an initial way. Descriptive, where the interrelation of certain variables related to the phenomenon in question is already established. The relevant variables are correlational; they cannot specify cause and effect. They need to relate reliable and valid data. And Experimental designs, which are used when trying to determine the relationships between cause and effect. In these designs the independent variables are manipulated by the researcher to study their effects or consequences (dependent variables). Rubin and Babbie talk about 4 dimensions: exploratory, descriptive, explanatory and evaluation studies (2005, pp. 124-126).

These designs could be specified in the following types of research in table 2.

Table 2. Kinds of Social Work Research.

			1.1.1.1. Substantially controlled.	
1. The control of research on the phenomenon studied.	1.1. Experiment (Experimental)	1.1.1. Field.	1.1.1.2. Partially controlled.	
			1.1.1.3. Uncontrolled.	
			1.1.2.1. Substantially controlled.	
		1.1.2. Laboratory	1.1.2.2. Partially controlled.	
			1.1.2.3. Uncontrolled.	
	1.2. Naturalistic.			
	2.1. Exploratory			
2. Functioning in relation to the type of knowledge	2.2. Measurement.			
	2.3. Descriptive.			
produced.	2.4. Clarification (explanation).			





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	3.1. Unique system.		
3. Size and composition	3.2. Homogeneous group.		
of the sample.	3.3. Multiple groups.		
	3.4. Heterogeneous group.		
Calendar of data collection and	4.1. After the fact. (Ex post facto)		
implementation	4.2. Future.		
(ocurrence) of the independent variable.	4.3. Undifferentiated.		
5.5	5.1. Once		
5. Repetition of data collection.	5.2. Twice. (e.g. before and after the intervention)		
	5.3. repeatedly (time series, longitudinal, (panel, Trend))		
6. Methodological	6.1.Quantitative.		
guidance.	6.2. Qualitative.		

Source: Own elaboration from Fortune and Reid (1999, pág. 97) & Barrera-Algarín (2020).

### 3. How to carry out experiments in Social Work.

In social work, experiments are usually used to discover the effectiveness of different interventions, services or programmes. Is short-term clinical treatment as effective as introspective therapy? Do family protection services work? Will social benefits produce less dependence or more poverty? Kirk (1999, p. 73) argues that experiments are able to answer such questions by observing a particular aspect of reality so that we can make some prior judgments about whether a specific intervention produces the desired outcome. This is not simple; it presents numerous difficulties. That is, what appears to be a cause-effect relationship, because two elements seem to be related, can be explained by different factors. For this reason, every experiment necessarily has to be governed by a series of steps:

- Pre-test measures applied to all the people in the study.
- Random assignment of people to the control and experimental groups.
- Introduction of a clearly defined intervention (experimental variable) applied only to the experimental group.
- The conditions are the same for the control and experimental group, except for exposure to the experimental variable.
- Post-test measures. (Rubin & Babbie, 2005, p. 324).





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The basic scheme of this type of Social Work Experiment is the so-called 'PRETEST-POSTTEST CONTROL GROUP DESIGN' which is equivalent to the following diagram:

The first line would refer to the Experiment Group, and the second to the Control Group. 'R' refers to the random selection of subjects from each group (randomization). A pre-test measurement (observation) represented by O<sub>1</sub> and a post-test measurement (observation) represented by O<sub>2</sub> are performed on each group. Only the experimental group is introduced some modification (experimental variable). The experiment consists of seeing the starting points of their respective O<sub>1</sub> and their similarities, and comparing them with the different O<sub>2</sub>, emphasizing their differences. For example, two groups of dependent adults are randomly selected. Both are measured as to how their situation of dependency affects them (pre-test). In one of the groups, we apply a home help service (experimental group). At the same time we carry out a new assessment of your dependency situation (post-test). We carry out a comparison of results between the control group and the experimental group.

On this same experimental scheme, other variations can be applied, such as the 'POSTTEST-ONLY CONTROL GROUP DESIGN', which is structured as follows:

R X O R O

That applies when it is impossible to make observations or pre-test measurements. We also find the 'SOLOMON FOUR-GROUP DESIGN', especially useful when we can work with 4 groups: two of them will be experimental groups, and in 2 of them pre-test and post-test measures will be applied. It could be represented in the following way:

If what we want is to evaluate 2 different interventions in the same experiment, and to know if they cause modification of reality, and if one is better than the other, we can use the 'ALTERNATIVE TREATMENT DESIGN WITH PRETEST'(Shadish, Cook, & Campbell, 2001) and which is structured as follows:



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 $(X_{AB})$  is better than any of them separately  $(X_{A}, X_{B})$ . This is a graphic example:

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In it we work with 3 groups, where there are two experimental groups in which two different interventions are applied (X<sub>A</sub>, X<sub>B</sub>), and a control group to be able to compare the results. A variable of the previous one is the 'DISMANTLING STUDIES' exposed by Rubin and Babbie (2005, pág. 326), where you can also see if the combination of treatments or interventions

R O<sub>1</sub> X<sub>AB</sub> O<sub>2</sub> R O<sub>1</sub> X<sub>A</sub> O<sub>2</sub> R O<sub>1</sub> X<sub>B</sub> O<sub>2</sub> R O<sub>1</sub> O<sub>2</sub>

We have observed the importance of randomization in the assignment of participants to control and experimental groups in order to maximize the comparability of both groups. In many contexts of social work or social intervention it is not even possible to obtain a control group. And when we can have a control group, it is not viable to use randomness to assign subjects to groups. This is the reason that we use the quasi-experiment.

Perhaps the most used is, for its simplicity, the 'NONEQUIVALENT CAMPARAISON GROUP DESIGN', which is represented as follows:

As we can see, the most significant difference with the experiments is precisely the absence of randomness 'R'. We have two groups with similar characteristics where randomness has been impossible, but it is possible to make comparisons.

But of course, we always have the problem of internal validity and the need to answer cause-effect questions that can be made through an experiment, but difficult in a quasi-experiment. Therefore, more reliable quasi-experiment models are used. An example is the 'USE MULTIPLE PRETEST', of which we can see the following example:

 $\begin{array}{cccc} O_1 & O_2 & X & O_3 \\ O_1 & O_2 & O_3 \end{array}$ 

Here we try to replace the lack of randomness with more pre-test measurements in both groups.

In the case of 'USE SWITCHING REPLICATIONS', we try to do the same, but alternating (switching) the control group and the experiment group:

 $\begin{array}{ccccc} O_1 & X & O_2 & O_3 \\ O_1 & O_2 & X & O_3 \end{array}$ 

As we seek greater control of the variable in the quasi-experiment, time series are tremendously useful. For example 'SIMPLE TIME-SERIES DESIGNS':

 $O_1$   $O_2$   $O_3$   $O_4$  X  $O_5$   $O_6$   $O_7$   $O_8$ 





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Where we increase the number of pre-test and post-test measurements. In the same way, but with a control group and an experimental group, we can make use of the 'MULTIPLE TIME-SERIES DESIGNS':

$O_1$	$O_2$	<b>O</b> <sub>3</sub>	O <sub>4</sub>	Χ	$O_5$	$O_6$	<b>O</b> 7	O <sub>8</sub>
O <sub>1</sub>	$O_2$	О3	O <sub>4</sub>		<b>O</b> <sub>5</sub>	$O_6$	<b>O</b> 7	O <sub>8</sub>

# 4. What is 'Single-Case Evaluation Designs' (SCDE) in social work and how is it applied. Single case designs apply the logic of time series designs to the evaluation of intervention

effects, policy changes or individual case systems. This kind of research designs allow to measure the effectiveness of the intervention in Social Work, and therefore, they are able to

generate theoretical knowledge directly from professional practice.

To this end, it is used in the logic of the time series described in the experiments and quasi-experiments, but applying it directly. For this purpose, a phase called 'baseline' is introduced: the phase of repeated measurements (observations) that occurs before the intervention is introduced (Rubin & Babbie, 2005, p. 365). Baseline: This is a control phase that serves the same function as the control groups in an experiment, but without the need to create a control group. These single-case evaluation designs seek to compare the data obtained during the baseline phase (control) with the intervention phase (experiment).

To infer that an intervention is effective (to attribute to an intervention the change of a variable); there must only be changes during the intervention phase and not during the baseline phase. A basic example of this research design is the so-called 'AB Model' (see Figure 1).

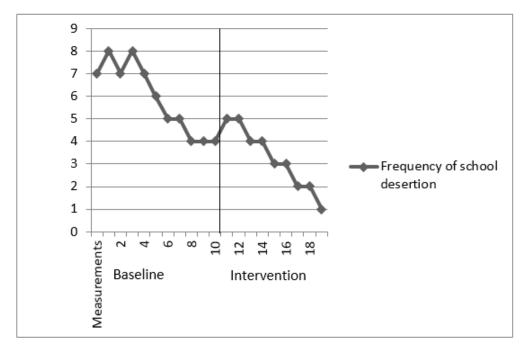


Figure 1. AB Model. Source: Own elaboration.



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The example AB Model describes an intervention work with a group of teenagers that is characterized by a high rate of school absenteeism. During the first few weeks, their absenteeism rate is measured; this is the Baseline Phase. During this phase only the variable to be modified is measured and there is no intervention by the social worker. Starting with measurement 11 (observation 11), work has already begun and Social Work intervenes with the group. We can see how lower rates or rates of absenteeism are registered, which, as the intervention is deepened, can be extinguished. The aim is to compare the two phases: During the baseline phase (no intervention) there are no changes in the variable (it is as if it were the control group). During the interventions of social workers, it is possible to minimize and reduce absenteeism (experimental group). This indicates that the intervention is effective.

From here, the Single-Case Evaluation Designs provide us with other improved models to apply the same rule and demonstrate that something happens when the Social Worker intervenes. For example, the ABAB Model (see Figure 2). This model is based on the same logic as the AB model, but with 2 Baseline periods (where there should be no changes) and 2 intervention periods (where variations should be confirmed).

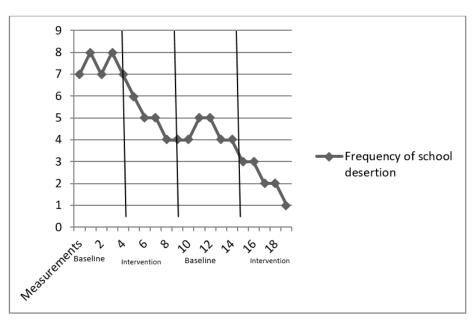


Figure 2. ABAB Model. Source: Own elaboration.

In this intervention there are two baseline periods that serve as control groups, during which no intervention takes place, so the measurements or records of the observations remain static. As soon as the Social Work intervenes (in the two phases of intervention) we can see how the levels of absenteeism are reduced, thus demonstrating the effectiveness of the intervention.



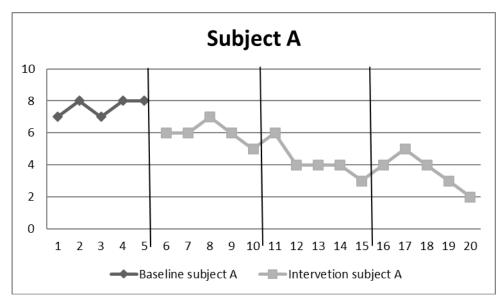


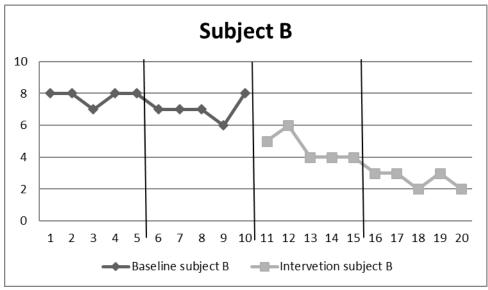
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Another of the possibilities of the Single-Case Evaluation Designs would be the MULTIPLE-BASELINE DESIGNS Model. This model implies the application of several AB models simultaneously but with different beginnings of the interventions (see figure 3).









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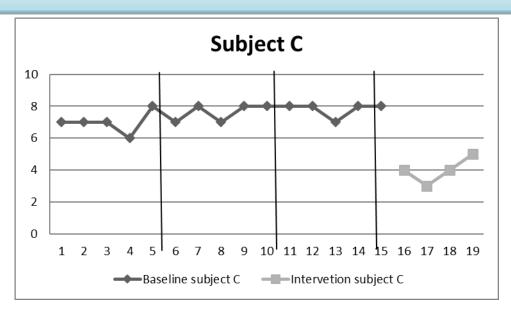


Figure 3. MULTIPLE-BASELINE DESIGNS.

Source: Own elaboration.

In this example a methodology is applied to reduce the level of discussions and family conflicts in 3 subjects (Subject A, B and C). With each one of them the intervention begins at 3 different moments, and we can observe how in the periods of intervention (in comparison with the baseline periods) there is a reduction in family incidents and conflicts. Barrera-Algarin (2020) argue that these methodology and techniques used are valid in two ways: firstly, because the levels of discussion are reduced when we begin to intervene with each subject, and secondly, because these reductions are not due to other uncontrolled external variables, since in all cases and even if we start at different times, there is only a reduction in family incidents when the social worker is intervening with them.

### 5. Methodology.

In order to prove the evolution and development that experimental, quasi-experimental and Single-Case Evaluation Designs research methodologies have had in Social Work in the last decades, a study is carried out using the SCOPUS database. SCOPUS is used because it is an international and multidisciplinary database of worldwide prestige, which allows us to analyze the best publications indexed and validated by the scientific community. Scopus is the largest abstract and citation database of peer-reviewed literature: journals, books, conference proceedings and trade publications. Scopus access provides a comprehensive overview of the world's research output in the fields of science, technology, health, social sciences and the humanities. Scopus features smart tools to track, analyze and visualize research, and supports researchers. Scopus is a bibliographic database of abstracts and citations of articles from scientific journals. It covers approximately 18,000 titles from more than 5,000 international publishers, including coverage of 16,500 peer-reviewed journals in





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the areas of science, technology, medicine and social sciences, including the arts and humanities. (SCOPUS, 2021c).

We can perform specialized searches and group them using different criteria, such as Access Type, Year, Author Name, Subject Area, Document Type, Publication Stage, Source Title, Keyword, Affiliation, Funding Sponsor, Country/territory, Source Type, and Language. (SCOPUS, 2021c).

The main objective is to analyze the scientific impact of experimental, quasi-experimental and Single-Case Evaluation Designs in Social Work from 1960 to the present, its evolution, incidence and impact in the scientific community, taking as reference the greatest impact international publications.

The main hypothesis is that the Social Work has been able to use these methodological research strategies to consolidate its capacity for research and generation of knowledge, both for the generation of theory and for professional intervention.

For this we have conducted specialized searches using a total of 14 research variables grouped into two broad analytical categories: 'Experiment in Social Work' and 'Single-Case Evaluation Designs in Social Work'.

These analytical categories were subdivided into more specific study parameters, such as 'Documents by year'; 'Documents by country'; 'Documents by subject areas'; 'Documents per Social Work Journals'; 'Documents by type'; and 'Documents by affiliation'.

All of this was subject to specific criteria for exclusion from the results. Excluded elements: All publications that are not directly related to Social Work.

To be able to follow the analysis of variables we can see table 3.

Table 3. Variables.

Coding	Variable	Subcategory	Excluded	
VSE001	'Experiment in Social Work'		This variable excludes publications on experiments or quasi-experiments not directly	
VSE0011		'Documents by year about Experiment in Social Work'	related to Social Work	
VSE0012		'Documents by country about Experiment in Social Work'		
VSE0013		'Documents by subject areas about Experiment in Social Work'		
VSE0014		'Documents per Social Work Journals about Experiment in Social Work'		
VSE0015		'Documents by type about Experiment in Social Work'		





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VSE0016		'Documents by affiliation about Experiment in Social Work'	
VSE002	'Single-Case Evaluation Designs in Social Work'		This variable excludes publications on Single-Case Evaluation Designs not directly related to Social Work
VSE0021		'Documents by year about Single-Case Evaluation Designs in Social Work'	
VSE0022		'Documents by country about Single-Case Evaluation Designs in Social Work'	
VSE0023		'Documents by subject areas about Single-Case Evaluation Designs in Social Work'	
VSE0024		'Documents per Social Work Journals about Single-Case Evaluation Designs t in Social Work'	
VSE0025		'Documents by type about Single-Case Evaluation Designs in Social Work'	
VSE0026		'Documents by affiliation about Single-Case Evaluation Designs in Social Work'	

Source: Own elaboration.

At the end, and with all the results that the specialized search engine has been providing us, we have generated an statistical analysis making use of the 'Analyze search results' tool of SCOPUS, which also allows the generation of data grouped in graphs.

#### 6. Results.

In relation to the variables 'Experiment in Social Work' (VSE001) we have found a total of 10434 documents published in SCOPUS between 1960-2018. At the time of the search (February 6, 2021) there were already 216 documents published on 'Experiment in Social Work'. (Scopus, 2021a)

We can see an important development of the number of publications along the period 1960-2018 (variable VSE0011). There is a first phase where the number of publications<sup>1</sup> is lower and coincides with the first times of experimentation in Social Work, between 1960-1990. Since 1990 there has been a significant increase in the number of publications. But where we can see the greatest increase is from 2005. From 250 publications in 2005, we increased to more than 1750 publications in 2018.





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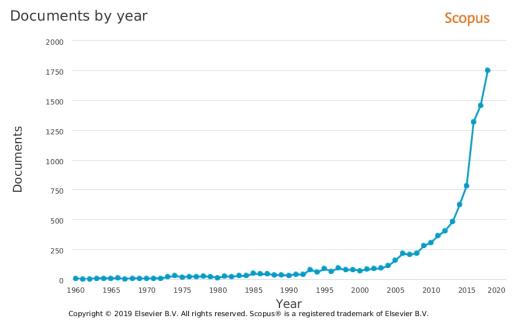


Figure 4. Documents by year about Experiment in Social Work. Source: Scopus (2021a).

These publications have the following characteristics:

- The countries that have shown the highest production are (variable VSE0012): United States with some 3800 publications is the unquestionable leader. It is followed by the United Kingdom, with 1250, China, Canada and Australia with more than 500 publications each, and then a group of European countries (Germany, France, Spain, Holland and Italy) with more than 250 publications each. (Scopus, 2021a).
- This coincides with the filiation of the authors of the documents (variable VSE0016).
  The top 10 universities are North American, and one from Canada: University of
  Michigan, University of Toronto, Stanford University, Columbia University in the city
  of New York, Carnegie Mellon University, Arizona State University, University of
  Maryland, University of Washington (Seatle), and UCL. (Scopus, 2021a).
- The main journals (variable VSE0014) that have published the documents are specialized in Social Work: Journal of Social Work Education, British Journal of Social Work, International Social Work, Research on Social Work Practice, Child and Family Social Work, Journal of Social Work Practice, Social Work in Health Care, etc... (Scopus, 2021a).
- In relation to the variables 'Single-Case Evaluation Designs in Social Work (VSE002) we have found a total of 606 documents published in SCOPUS between 1969-2018. At the time of the search (February 6, 2019) there were already 13 documents published on Single-Case Evaluation Designs in Social Work'. (Scopus, 2021b).







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> Like SCED is a much more specific research methodology, it appears to a lesser extent than the previous variables analyzed, but it presents the same behaviour. There is a significant increase<sup>1</sup> in the number of publications (variable VSE0021) over the years. But where we can see the greatest increase is after 2000, when we would go from having 5 publications per year to having 35 publications in 2015.

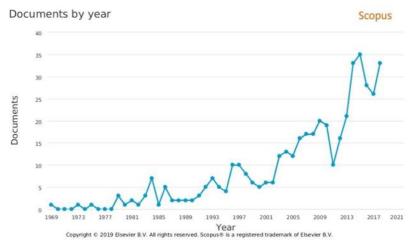


Figure 5. Documents by year about Single-Case Evaluation Designs in Social Work. Source: Scopus (2019b).

These publications have the following characteristics:

- Virtually all scientific production is concentrated in the United States and the United Kingdom (variable VSE0022). Canada, Germany, Australia, Sweden, Holland, Italy, France, Japan and Spain also stand out, although to a much lesser extent.
- As for the universities (variable VSE0026) of origin of the research, there is greater heterogeneity than in the previous variable. There is a presence of universities from several places, among which the following stand out: Sheffield, Manchester, Newcastle, Seattle, Maastricht, Glasgow, Cincinnati, Sidney, etc...
- The main journals (variable VSE0024) that have published the documents are not exclusively specialized in Social Work. The principals are Brain Injuri, Behavioral and cognitive Psychotherapy, American Journal of Occupational Therapy and Behaviour Modification. But there are also exclusive Social Work journals that have published this type of research, like Research on Social Work Practice, Journal of Social Service Research or British Journal of Social Work. (Scopus, 2021b). The reason for this is that the research is very focused on behaviour modification and on measuring the effects of behavior modification, a non-exclusive element of Social Work and one in which they are interested in publishing journals in other areas of research.





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#### 7. Conclusion.

First conclusion: There is a significant increase in the number of publications about "Experiment in Social Work' and 'Single-Case Evaluation Designs in Social Work', especially in the last decade.

Second conclusion: The United States and United Kingdom are the largest producer of experimentation in Social Work. Its universities are highlighted too.

As we can see, the Social Work has experienced a maturity in the last century that has allowed its scientific development. This is a scientific discipline which is able to generate scientific knowledge directly from its professional intervention, more specifically, evaluating its intervention and especially its results. To this end, it has the possibility of applying both experimental and quasi-experimental research designs, depending on the conditions and possibilities surrounding the intervention and the researcher. It is something tremendously useful that Social Work has been able to explore and promote in recent decades.

Along the same lines, it has developed the evaluation and research models known as 'Single-Case Evaluation Designs'. Applying the same logic as the experiments and quasi-experiments (the comparison between control group and experimental group), it has been possible to measure the effectiveness of the intervention of social workers, allowing to demonstrate findings and theoretical knowledge that has been used for the concretion of methodologies and intervention models that today are applied at an international level.

In conclusion, the Social Work has known how to directly connect professional practice and intervention with the generation of scientific and theoretical knowledge. Like Medical Science, Social Work from its origins, is understood in the connection that feeds back between 'theory' and 'practice', between intervention and research. The practice of Social Work feeds and generates theoretical knowledge, just as the theoretical knowledge of Social Work feeds and generates the practice of the profession. They are the same thing.

The conclusions analyzed here also reinforce the concept of Evidence-Based Practice, or rather, evidence-based Social Work. In this sense, there is a link between research and professional intervention in a coherent and refined way, which benefits both the intervention professionals and the researchers themselves. A fusion of the field of science, research and professional practice. It establishes a clear path by which this discipline has already travelled an important distance in the world of science. The connection between intervention and research is clear, as are the methodological forms in which they can be sustained.





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