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**LINGUISTIC VS VISUAL CONCEPTIONS OF RESEARCH:**

 **LANGUAGE TEACHERS AND STUDENTS. AN INITIAL EXPLORATION**

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Resumen

Current Language Teacher Education programs have implemented strategies to promote the reflection in their students. One of the strategies to promote continuous reflection in the teaching practice is the inclusion of modules that foster research practices, specifically action-research, in the curriculum. The present study aimed at exploring the conceptions of research of a group of students and teachers in a BA in English Language Teaching. Conceptions were explored by using visual and linguistic instruments to collect data with the purpose of allowing participants to express emotions and other unprocessed beliefs about what conducting research meant to them. The obtained results show that there are some coincidences in the perceptions of teachers and students, such as perceiving research as a journey or a path that has to be followed and where difficulties might be found. Some differences between students’ and teachers’ perceptions are that the former visualize research as being experimental through the use of flasks and test tubes and lab equipment, in spite of the fact that these students are specializing in Language Teacher Education, a field where there is little to no opportunity to find these kind of equipment while the latter perceive research as a continuous cycle. It would be advisable to consider the possibility of the benefits that could be gained by making both teachers’ and students aware of their own conceptions as a stepping stone from which to promote an in depth reflective process that would allow them to become more flexible and consider other views as possibly true.

Palabras clave: Visual conceptions; Linguistic conceptions; Research; Language Teacher Education.

I. INTRODUCCIÓN

Lately, most teacher education programs have strived towards including a research strand in their curriculums with the intention of providing student-teachers with the opportunity of getting used to systematically reflecting on their teaching practice and thus, improving the quality of their learning process (Fávero & Marquez, 2013; Hine, 2013).

The perceived impact that doing research appears to bring to teaching practice has been discussed by numerous authors. For instance, Shulman (1987) argues that one of the main benefits student-teachers might receive from doing research is informing their practice by keeping a record of what they do in their classrooms, as well as the outcomes those actions have, and making those findings available for other teachers who would not usually have access to them because of the fact that teaching rarely happens when other fellow teachers are present. The impact these records seem to be more influential for practitioners than the products of university researchers’ findings (Van Zee 1998, p.792). While the benefits of conducting research for student-teachers are clear, it is also clear that they will also be in need of the proper preparation that will enable them to do so.

The current study, aims at exploring the participants’ both linguistic and visual conceptions of research in a most neglected context, providing with a more integral view of their conceptions which might help better understand what appears to be a contradiction between conceptualizations and actual willingness to engage into the research process.

II. Marco Teórico

The tendency to include research courses in teacher education has given student-teachers much more contact with the research field and the work of educational researchers. The influence of this contact and its level of impact over student-teachers’ cognition and practice have started to raise the interest of researchers in the field. Meyer et al (2005) for example, analyzed the perceptions about research held by Australian and South African postgraduate students through interviews and a survey of their creation named ‘students’ conceptions of research inventory’. Their study showed that their participants related doing research to gathering information, discovering the truth, providing deeper insight on a topic, finding solutions and discovering what is hidden. More recently, Kawulich et al (2009); in a study where they gathered data through interviews, focus groups and open ended surveys; found that their participants conceptualized research as answering questions, supporting existing theory, changing a current situation, and solving a problem. Later on, Pitcher (2011) explored the conceptions of doctoral students through the analysis of metaphors related to research. His findings showed that the participants related research to discovery and exploration with the aim of producing or constructing something.

On studies stemming from the Second Language Teacher Education (SLTE) research field, Borg (2009), in a wide scale study which included researchers from several nationalities (which surprisingly does not include Latin-America), found, through the application of case analysis questionnaires and follow-up interviews, that participants related research to statistics, hypothesis, variables and research findings having a practical application. Moore (2011), in his replication of Borg’s study in an alternative setting (Cambodia), had very similar findings. His results showed participants relating research with providing ideas for teachers (which could be equated to Borg’s participants references to research having practical application); with collecting large volumes of information; and with using experiments. Tabatabaei & Yeganeh (2013) by also replicating Borg’s study in an also alternative setting (Iran) additionally found the participant’s perceived that research results should also be applicable in many different contexts.

Overall, the studies reviewed appear to indicate that teachers’ perceptions of research are mainly tending towards positivistic views. This raises questions about teachers’ and possibly student-teachers’ (thinking that teachers’ perceptions might permeate into student-teachers’ perceptions) conceptions being outdated and unconsciously fixed to a popular/traditional thinking of science and research, this despite the current rhetoric on mainstream and second language teacher education which in theory should have a more important influence in their thinking.

Most studies to date have only focused on the verbalization of teachers’ and student-teachers’ perceptions of research. Korthagen (1993) though argues that linguistic accounts of a person’s perceptions might be more inclined to express rationalizations of these perceptions which give a rational, logical explanation more than an integral view of their cognitions.

III. Metodología

**Participants:** A total of 13 students and 7 teachers of the BA in English Teaching at a public university of the North of Mexico participated in this study. All of the students were taking the 8th semester of the program, had previously taken an introductory course on research methods and techniques in 4th semester, had conducted an action-research project in 6th semester and were working on their graduation project at the time the research was conducted. On the other hand, the teachers were all involved in guiding or tutoring the students in their graduation projects, most of them including research to some extent.

**Procedure:** In order to know the participants’ perceptions of research, two approaches were followed. First of all, in order to explore their visual conceptions they were given a piece of paper and some crayons together with the instruction “draw what research represents to you”. Once they had done so and with the purpose of knowing about their linguistic perceptions, they were asked to write a short paragraph explaining their drawings on the back of the page.

According to Bryans and Mavin (2006), drawing pictures helps emotions and unconscious perceptions, difficult to be expressed through words, to emerge. On the other hand, giving the opportunity to participants of explaining their pictures, could help the expression of more logical and rational explanations.

IV. Resultados

Participants produced a total of 20 images and 20 linguistic descriptions expressing what research was for them. The images and linguistic descriptions were analyzed by looking for repetitive patterns within the images or the linguistic descriptions of research. From the analysis, 13 categories of conceptions were identified.

**Coincidental findings in teachers’ and students’ conceptions**

From both visual and linguistic representations it could be observed that both teachers and students appear to conceive research as a journey to be traveled, with clear beginning and end. In some of the representations, the participants would even draw a trail or mention the process as a “long path” (S7).

From the data we can see that participants seem to perceive research to involve higher cognitive functions in order to be carried out. These was a very frequent that could be observed in the manner of thinking bubbles coming out of the researchers head. Most of the times, these bubbles would contain what appears to be the representation of mental processes with a specific topic.

A less frequent finding, but present nonetheless, was the representation of feelings of frustration that could be identified in the expressions the participants would give to the people they drew. These could also be identified, although even less frequently, in linguistic representations, where participants would refer to research as “confusing” (S1) or “hard” (S9). A much more common representation was that of research being rewarding or implying a prize or benefit. This could be inferred through the observation of visual representations of researchers’ enthusiastic reactions after findings, and even the representation of findings being a treasure to be found (whether these represent the actual findings, the feeling of achievement, or the benefits the research -economical, status, etc.- might give to the researcher).

Interestingly, a number of participants used light bulbs in their visual representations. This might indicate that they relate light bulbs as ideas that offer either a purpose to the research or a possible solution for a research problem. Oddly enough, while the visual representation of light bulbs is frequent, there was no linguistic mention of either ideas or enlightenment.

An intriguing result is shown in the participants’ representations of change being provoked by either the process or the results of research. These change appeared to be present both in the researcher and in the participants. When it was represented as ´change in the researcher’ it was often portrayed as a noticeable difference in the aspect of the drawing, going from unhappy or puzzled faces to happy or satisfied faces in the representations of the researchers. A similar representation was found in regards to the participants in a study by showing a difference in the faces of the ones that were being affected by the research -happy and enthusiastic- and the ones that were not (control group) – unhappy or dull-. In the linguistic representations this was also identified, with participants referring to research being about “improving something” (T6).

Significantly, the idea of sharing results being a key part of the research process was found both in visual and linguistic representations. The visual representations included researchers presenting their findings to the community (global and local). The linguistic representations included mentions of research being “sharing results, letting know people what was discovered” (S7) or “the most important thing is to share what we found with others” (T2). In contrast, it was also observed that the participants seem to perceive research as an individual endeavor. This was particularly evident in the participant’s visual accounts, in which they all represented individual researchers, some showing them engaging with others only in the socialization of findings stage.

Unsurprisingly, the conception of research being a way of finding answers to questions was very frequently found in both teachers’ and students’ representations. This was observed in the visual accounts in the form of question marks, frequently stemming from the researchers’ head. The conception was observed in linguistic accounts in participants mentions of “make a research…. to finally find the answers” (S4), “trying to find answers to a question” (S7), “look for answers” (T2), or “finding a solution to an unfixed problem or an answer to an unanswered question” (T4).

Research was also represented by the participants as the act of examining something in great detail. This conception was observed in the participants’ frequent visual representation of a magnifying glass through which something is observed. This was also apparent in their linguistic representations through the mention of the need to “pay attention to details (observe) and gather information” (T2)

Our data suggests then, that both teachers and students see research as a journey to be traveled, a process that can lead to resolve unanswered questions. A process that involves looking at something in great detail, which can be frustrating at times, but which also has a positive impact in both researchers and participants, and that should always be socialized so this impact also translates to the community. These findings also report a high level of coincidence between the teacher’s’ and student’s conceptions of research which could suggest both, that teachers’ conceptions permeate student’s conceptions, and/or that their contextual backgrounds lead them to have common conceptions.

**Student-only conceptions**

A remarkable result to emerge from the data is the student’s conception of research as experimental in nature, which does not appear on any of the teachers’ representations. This particular conception was observed in visual representations in the form of flasks, test-tubes, and laboratory equipment. This is particularly striking given the fact that these students are specializing in SLTE, a field where there is little to no opportunity to find these kind of equipment. Their presence in the visual representations could have a number of meanings: a positivistic view of research in which hard data is needed for validity, the idea of social research being less rigorous and valid than experimental research, a clear dichotomous differentiation of ‘the researcher’ and ‘the teacher’ roles. Only one participant made a representation of a social experiment, involving an experimental and a control group.

This experimental view is also present in the participants linguistic descriptions regarding research as “doing by different means with a goal in mind to prove a hypothesis or to experiment if something works or not” (S6), “there are a lot of ways to find the information or collect the information, such as experimental methods or controlling groups, etc.”(S9).

Another conception that was privative of the students was regarding research as natural and linked to everyday situations. In the visual representations this could be identified through the image of a child asking questions, and someone research something of her interest. These images showed research as not being necessarily rigorous or structured, but more a part of an inherent human feature.

Interestingly enough, the students’ conceptions which do not coincide to teachers’ conceptions, seem show polarization to either very experimental views or very naturalistic ones.

**Teacher-only conceptions**

Only one of the teachers’ conceptions of research did not appear on the students’ conceptions. In some of the teachers’ representations, both visual and linguistic, the teachers would represent research as being a continuous cycle. This might be a result of the current popularity in the teacher education field of ascribing benefits to doing action research, particularly for practitioners, who could benefit of analyzing their teaching situations which can improve the quality of the learning process (Hine, 2013). This conception, however, seems not to have permeated into students’ conceptions.

V. Conclusiones y Discusión

Even though the studies reviewed in this paper appear to indicate that teachers’ perceptions of research tend to be positivistic, our study seems to indicate that this is not necessarily true for our participants. Students’ conceptions do seem to tend towards positivism; however, there are also cases where the opposite is true. In the case of the teachers, none of them seem to perceive research as merely positivistic and regarding it more to be related to their field of study (much more inclined towards social sciences). This makes us wonder the reasons why the teachers’ conception is not shared by the students, which would raise another question regarding the reasons why they do share many. We believe that a possibility could be the influence of the teachers’ conceptions in the students’ views, although while there are many aspects that could be regarded as the cause more research should be conducted in order to even attempt to claim the causality for this phenomenon.

The findings from this study differ in a number of aspects with the ones reviewed for this paper. In addition to the aspects that other authors have discovered, we found characteristics such as: research as a journey, research as a continuous process, research as involving higher cognitive functions, and research being a natural process. This could be due to the fact that the visual aspect of our study allowed us to observe a more integral view of the participant’s cognitions. On the other hand, our participants did not make reference to research as collecting large volumes of information, as applicable in different contexts, or having the aim of constructing something (Moore, 2011; Pitcher, 2011; Tabatabaei & Yeganeh, 2013)

It would be advisable to consider the possibility of the benefits that could be gained by making both teachers’ and students aware of their own conceptions as a stepping stone from which to promote an in depth reflective process that would allow them to become more flexible and consider other views as possibly true (or not).

It is clear to us that there should be much more research done before trying to come to any clear-cut conclusions. We would particularly recommend to continue research on this particular cognitive aspect of the development of teachers and their implications on their willingness to engage in research. Even more if the SLTE rhetoric continues towards the promotion of research as a tool for the improvement of teachers’ learning processes.

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