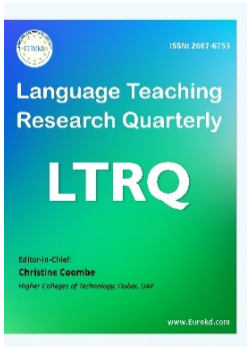

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It Is About Time: Chronos/Kairos, Transformative Research, and Learning and Development

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Abstract

This article crafts a distinct conceptualization of time in social sciences through two temporal concepts: Chronos and Kairos. Chronos refers to sequential, linear time, which frames quantitative causality and qualitative documentation in research methodology. Kairos, however, captures time as transformative, conceptual, and emotional moments, representing significant and opportune instances of change. I argue that social sciences should incorporate Kairos to understand time beyond linear temporal sequences. A chronos/kairos distinction allows time to be represented at three levels: (1) a linear continuum for causal, quantitative aspects; (2) a static, analytical framework for qualitative categorization; and (3) a dynamic, creative grid, emphasizing moments that may shape identity in small but consequential ways. Kairos becomes significant in social sciences and education, where teachers and students capture significant moments through art, storytelling, or multimedia. This arts-integrated, action-oriented approach, called Transformative Research (TR), promotes a participatory and creative intervention where research time is not just measured of documented but designed, experienced, and told. Through TR, I advocate for a shift from chronological tracking to fostering Kairos as a path to capture meaningful, transformative experiences, inspiring a more sociocultural, action-grounded approach to research and professional practice.

Keywords: *Time, Kairos, Sociocultural Theory, Transformative Research*

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[1]Introduction

[1] This paper is part of a special issue (2024, 46) entitled: In Honour of James P. Lantolf's Contributions to Sociocultural Theory, Second Language Development and Language Pedagogy (edited by Mirosław Pawlak, Zhisheng (Edward) Wen, and Hassan Mohebbi).

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I was fortunate to pursue my doctoral studies and writing my dissertation under the guidance of James P. Lantolf. Our paths crossed in 1999 at Pennsylvania State University. Jim epitomizes dedication as a professor and a mentor, captivates as a teacher and presenter, and intellectually inspires as a scholar and writer. His publications (Lantolf, 2000; Lantolf & Thorne, 2006; Lantolf & Poehner, 2008; Lantolf & Poehner, 2014 among many others), rooted in Vygotsky's research, inspire me to delve deeper into the sociocultural quality of learning and development in the field of second language teaching and testing, seeking more integrated and human-centered approaches to research. This article is written to celebrate his mentorship and critical support throughout the last twenty-five years. It is indeed about time to honor this time together. It is also time to finally articulate my thoughts on temporality and transformative research, reflections that have been evolving over the past fifteen years.

The first goal of this article is to briefly reflect on the ubiquity of time in all dimensions of human experience (physical, biological, cultural, social, historical, and linguistic). In these pages, I propose that there is a need to become aware of temporal affordances and constraints through explicitly developing a concrete definition of significant time to be able to place transformative temporality at the core of social research. Time is the envelope of all humans functioning in social activities such as work, play, and teaching/learning. Time mediates and is mediated by cultural tools (physical and psychological). In educational settings, time is the cornerstone of teaching/testing/learning, and it is meticulously ingrained in time-structured modern institutions. This seemingly abstract endeavor, crafting a tangible definition of time, lies at the heart of advancing a human-centered approach to research relevant to practitioners in professional fields, be that clinical, educational, or professional settings. In social life, time is a cultural construct to be explored and consciously deployed by practitioners in different professional and educational contexts.

The second goal of the present proposal is to connect a nuanced and concrete definition of time, inspired by the Greek rhetoric chronos and kairos distinction, with research praxis. Research praxis, from the present perspective, is aimed at producing time-significant experiences. Research praxis is about designing and implementing interventions where unique and relevant understandings emerge. If research practice is about observation, quantification, and documentation, research praxis (participants intending to orient change in the world) is about a different type of understanding which uniquely emerges through intervening in concrete activities. When kairos meets research praxis, we promote Transformative Research (TR). TR is about growing through action and creative engagement to comprehend both social participation and participants themselves (teachers, learners, researchers…), who are historical sense-making beings functioning in educational settings from an early age.

In what follows, I first describe human perception of time and its different dimensions. Next, I focus on everyday understanding of time through language and question the standard linear topology for representing time. I then expand on a critical temporal distinction between chronos and kairos, inspired by Greek Rhetoric. I suggest that time, as a cultural practice, may be portrayed at three basic levels: a linear continuum at the perceptual causal level; a fixed table at the analytical, qualitative, and taxonomic level; and as creative, conceptual, emotional grid/moments at the transformative identity level**.** This third level is where Kairos becomes action-oriented and arts-infused, with teachers and students acting as agents of artistic representation, promoting and capturing meaningful moments through stories, photography,

poetry, music, multimedia, or other creative significant practices. In the second part of this article, and through the notion of genesis in Sociocultural Theory, I focus on how temporality is at the core of human functioning in culturally mediated activity. Finally, I describe the main features of TR as interventionist, praxis, action-grounded, participatory, arts-infused, and sociocultural approach to researching identity, learning, and development in different contexts.

Time is Everywhere: Culture, Psychology, Language, and the Standard Topology of Time

Time, and age, loom large in the sociocultural existence of human beings, yet its centrality often goes unacknowledged and unnoticed by social practitioners and professionals, who may overlook the need to address it, much less define it. As Rosa (2010) explains, temporal regimes are invisible to participants. Defining temporality is left to academics in concrete fields of study, with time either being abstractly defined within philosophy or quantified and measured within the field of physics. In research methodology, time is implicitly and chronologically constructed through the surrounding cultural artifacts, including protocols and research tools that academics in fields such as education or applied linguistics adopt for measuring and documenting teaching/learning processes. A brief reflection about time, how we perceived it, how it is connected to events, how we represented, and how time is lost in translations is significant here. These, I believe, are critical reflections to ground the arguments about time, as both chronos and Kairos, and transformative social science research methodology, which I develop in the second part of this article.

Time is the oxygen of all dimensions of human life: physical, biological, social, cultural, historical, and linguistic. From a basic physics standpoint, time centers in the activity of measurement, focusing on constant astronomical cycles such as earth rotation and orbits. In the 20th century, the axiomatic principle of time and the independence of human senses in classical mechanics of Newton was questioned with “the evolution of the notion of space and time into that of the continuum with metric structure” (Einstein, 1957/1936, p. 382). This led to the Theory of Relativity.

As a cultural practice, time is grounded on the activity of inventing artifacts for counting days, hours, and minutes, often organized into calendar tables to facilitate life planning—which connects with a higher mental function known as organized planning. Additionally, time serves as a cultural category of thinking imbued with meaning and value, framing experiences, and events within grids of significance. From a historical and anthropological perspective, the inventions of time counting- artifacts such as clocks (counting hours, minutes, seconds) and calendars (counting days, months, years) have been integral to cultural functioning across various civilizations since ancient times.

Postill (2002) argues that clock and calendar time (CCT) stands as one of the Western world's most influential exports. CCT governs, either directly or indirectly, the daily routines of individuals, artifacts, and representations globally. Its concise array of symbols facilitates easy acquisition and communication. In contrast to more intricate codes found in art forms, CCT affords minimal ambiguity. It also contrasts with circular organizations and understandings of calendar time, such as the Mayan calendar.

The perception of cultural and historical time is based on calendar systems, evolving from ancient history to the precision of clock time, which emerged prominently during the Middle Ages. The conception of time in modern societies is heavily influenced by artifacts for

measuring and keeping time (Thomson, 1967). This transition from natural daytime reckoning to clock time appears to have been introduced in Western Europe between 1300 and 1640. Additionally, the Western conception of time evolved from the introduction of the clock because of the development of mass and rapid transportation and communication systems in the industrial revolution. Changes in means of transportation had a temporal impact in the 19th century. Times were approximate before the introductions of mass communication. Fast moving trains and telegraphs brought the necessity of temporal coordination between distant places. Time approximation was not enough for coordination. Approximation and local times shifted to temporal precision and standardized times (Ogle, 2015). The pervasiveness of very precise timekeeping in modern societies points to an awareness of how time has become a precise, well kept, and scarce commodity in daily life. Too many things to do in too little time is not an existential given. It is a sign of an acerated and alienated society (Rosa 2010).

Intersubjective and Subjective Time: Durative, Segmentable, and Cyclical

Time is a critical property of human experience (Einstein, 1957/1936). Setting aside a detailed exploration of Time in Theoretical Physics (Emery et al., 2020), phenomena such as solar and lunar cycles, seasonal changes, and the rhythms of living organisms imbue human's perception of time with a cyclical nature. At a basic psychological level, human's understanding and experience of time derives from intersubjective and subjective experiences and events.

From an intersubjective standpoint, time is understood as the continuous flow of interpersonal experiences and events, which are durative, segmentable, and cyclical. First, time durativity is an existential given of interpersonal experiences. In this regard, time is a durative perception of continuous sense of things and events being in a process of ongoing-ness with other people. Second, time is segmentable, as both daily events and larger frames of interpersonal relationships, social processes, are divisible. Constant change of biological age and human natural existence is also part of interpersonal experiences. Life, growth, decay, and death are parseable through daily observation of people's stages and phases. Changes in the natural world, and continuous minor, small, and every so often, significant, drastic changes in objects, people and events makes time divisible. Life processes have beginning and ends, so that framing time is chunkable or segmentable. Third, time is cyclical, since both cultural rituals and natural life have repeating cycles. Cultural life, even small daily rituals, and everyday experiences, provides a sense of start, growth, beginning, ends, and completion of situations. The natural world is also full of repeated cycles. It is evident from direct observation that there are natural and astronomical units of time observable in the world around us.

From a subjective experiential sense, time is perceived, and implicitly constructed, as an ongoing quality or feeling (durative). Temporal durativity is experienced in consciousness as the immediacy of attention (3-7 second window). It is also psychologically perceived as linear moment by moment (segmentable) and continuous sense that develops into periods of time (sequential). These periods repeat (cyclical) themselves through an unbounded potentially infinite social future (longitudinal) with a finite outcome for individual participants (life of individuals are finite). At a basic psychological and subjective level, time may be equated to the feeling of passing of moments and events at varying diffuse proximities—immediate, proximal, and distant. The immediacy of perceptual time is elucidated by our ability to link

immediate and distant temporal intervals and moments, giving us the daunting and existential impression of fleeting time.

Time, Events, Metonymy, and Motion

According to Lakoff and Johnson (1999, p. 140), everyday comprehension of time is concretized through metonymy, that is, understanding time in terms of events. Successive instances of a particular event symbolize intervals of "time," thereby suggesting that the fundamental attributes of our temporal understanding of time emerge from the characteristics of events. Time is perceived as continuous due to our experience of events unfolding continuously. It is also perceived as divisible into segments because periodic events possess discernible beginnings and ends. The measurability of time stems from the countability of event iterations.

Lakoff and Johnson (1999) also posit that much of our temporal understanding in language is metaphorically rooted in our comprehension of spatial motion. Time is abstract and hard to grasp but motion through space is concrete. Physical dimensions, contexts, and events happen in very specific places that people enter and leave. Natural existence is based on concrete motion. The perception and motion from one place to the next give us a definitive sense of time. I am now here but I was there a moment ago. Consider examples such as: "There's going to be trouble down the road," "Will you be staying a long time or a short time?," "What will be the length of his visit?," "Let's spread the conference over two weeks," "The conference runs from the first to the tenth of the month," "She arrived on time," "We're coming up on Christmas," and "We're getting close to Christmas. "Lakoff and Johnson (1999) also contend that our understanding of time is not arbitrary but rather grounded in fundamental everyday experiences. It is hard, if not impossible, to further think about time without using implicit metaphors in our discourse, such as time is a resource. Linguistic evidence in our everyday discourse reflects referring to time as moving, observers as moving, or time as orientation in space.

The Representation of Time: Linear Topology in Verbal Tense, and Tables and Grids in History and Time Management

From a representational perspective, a conventional attempt to represent time in space produces a singular, linear continuum, potentially extending infinitely in both directions—a representation referred to as the "standard topology" for time (Emery et al., 2020). When prompted to illustrate time, participants frequently depict it either as a continuous line, or sometimes an arrow symbolizing movement or progress towards the future. This tendency towards linear representation of durativity indirectly reflects the difficulty in considering alternative, even basic, illustration for representing the inherent abstractness of time.

Alternative to a straight line are cyclical representations of time in non-western civilizations. For instance, the Yucatec Maya expression of time in language and gesture fits their more general cultural conception of time as cyclic (Leguel & Pool Balam, 2012). This takes us from a commonsense representation of time into how verbal tense (linguistic time) is encoded in language.

At language level, linguistic time or tense, as a language category, encompasses the activity of framing events, implicitly considering factors such as the event's proximity to the moment

of speaking, its aspectual contour, and its epistemological status. As Comrie (1985) puts it, tense is the grammaticalizaton of location in time.

Verbal tense also tends to be represented with a line. Bull (1984/1965) discusses how a single simple linear representation of tense based on past/present/future is ubiquitous in language classroom, whenever verbal tenses are introduced to L2 learners. This representation of tense does not allow learners to understand the meaning of verbal tense. At least four related temporal lines and three points of reference in each line are needed to represent tense, composed of relative location in time with respect to speech time, time of events, and connections between events. Negueruela (2003), inspired by Bull (1984/1965), developed a conceptual approach to teaching verbal tense based on different temporal lines and points of reference. From a conceptual perspective to the L2 classroom, verbal tense may be viewed not as a timeline, but rather as a framing value laden grid that profiles events within discourse. Grids allow to frame events in time with different qualities and values, whereas a line only allows for sequentially.

From a historical perspective, recounting of events becomes personal stories (Bruner, 2004), and at the societal level, community and political national histories. Time in history, then, can be viewed as narrative lived time, textually mediated memories (Wertsch, 2002), representing the cultural activity of highlighting events central to the story of a community. Cultural categorization is a higher mental function present in history, facilitated by templates and stories that organize and contextualize temporal events within social and personal values, views of progress, and political and economic agendas. Lines have indeed served as the prototypical historical representations to encapsulate historical events and their sequences.

Connected with the topology of time, an intriguing pedagogical innovation for the teaching of history emerged in the 19th century with Polish educator Antoni Jażwiński's introduction of a table system. Jażwiński proposed that history could be effectively organized and remembered through an abstract grid, offering a mnemonic aid for understanding the flow of events (Grafton & Rosenber, 2010). This concept found resonance in North America, particularly through the advocacy of Elizabeth Palmer Peabody, a prominent figure in Transcendentalist philosophy circles. Peabody expanded upon Jażwiński's grid, refining it to include a 3x3 division of the smallest unit. This enhancement facilitated the spatial representation of multiple historical events such as the births and deaths of individuals, the rise and fall of nations, and the progression of technological advancements. Peabody's adaptation of Jażwiński's grid system offered a visual framework that enhanced comprehension and retention. By breaking down historical timelines into manageable units within a structured grid, Peabody's approach provided a tangible way to remember multiple historical events.

It is revealing to highlight that the commonsense topology of time is a line or at most an arrow. Participants will not portray and conceptualize time, and history for that matter, as a table and much less a value grid. Tables and value grids are still present in weekly planners, which connect times and days with goals and priorities for the day. One of the popular examples of time as grid comes from the time management literature: the Eisenhower matrix (Covey, 2004). It is based on classifying actions into four categories using two basic criteria: (1) importance and (2) urgency as the defining qualities. While these time management tools are helpful, their application in interpersonal contexts poses challenges due to the differing priorities among individuals. What holds utmost importance and urgency for one person might

not carry the same weight for others. Be that as it may, grids as constructions indeed enrich our conceptions of temporality, and they may be productively used in classrooms for reflecting on cultural and linguistic conceptions of time.

A Conception of Time as Chronos/Kairos: Sociocultural Theory and Implications for Research and Sociocultural theory

In Greek rhetoric, the concept of time is not singular but encapsulated by two distinct Greek terms: kairos and chronos (Smith, 1969). While chronos denotes a quantitative measure of time, connected to the passing of time, kairos embodies a qualitative emotional essence, rich with contextual significance. Drawing analogies from activities like archery or weaving, kairos transcends mere temporal measurement, embracing the opportune moment, the perfect juncture for action or expression. As translations of Aristotle have noted, kairos eludes precise translation, standing as a testament to the depth of its meaning within the Greek rhetorical tradition (Smith, 1969)

Kairos was lost in translation into languages such as English or Spanish. Taking this theoretical distinction seriously may allow research methodology to recognize and prioritize action-grounded research (praxis in sociocultural terms) and fostering creativity through artistic means as a form of valid research central to social and educational advancement (Negueruela Azarola, 2020). Here it is argued that research on learning and developmental processes should recognize time not only as perceived chronological duration or Chronos (perception of durativity in time), but also as a conceived sociocultural emotional significance, critical junctures or opportunities, or Kairos (conception of significant time). The next step is the development of research tools and protocols to capture learning and development as transformations in significant moments (Kairos).

Time in Sociocultural Theory

In Vygotsky's sociocultural psychology (Vygotsky, 1987), temporal change holds a central position in grasping the essence of mental processes. Vygotskyan psychology is developmental not as a subfield of psychology but as the central locus for explaining human mental, cultural, and behavioral functioning. Socialization for the cultural mind (Kozulin, 2024) is a process of historical and cultural individuation, where human participate in mediated activities framed by temporality and change.

Time in sociocultural terms may be framed dialectically: it creates contradictions and crises. The resolution of these contradictions and crises give rise to new structures, stages, and understandings, which in turn engender further opposition. This dialectical conception of time is operationalized through two main categories in sociocultural psychology: history and genesis.

A first key tenet in Vygotskyan Sociocultural theory is that to study human mental functioning and behavior, researchers need to study the history of the person and the cultural development of higher mental functioning: “Historical study of behavior is not supplementary or auxiliary to theoretical study but is a basis of the latter” (Vygotsky, 1987, p. 41). As Wertsch (1985) argues, “history” in the broadest sense, is the temporal key which explains human development. Even more, to understand historical changes at the personal level, there needs to

be a focus not on states but on crisis as moments of significant change where new functions are created.

The second key tenet is the centrality of genesis as transformation in human life. Vygotsky (1986) research program centered around four genetic domains in psychology, and focusing on critical transformations across in these four temporals (or genetic) dimensions. Phylogenesis delves into changes associated with biological evolution in species. Sociogenesis explores transformations tied to the introduction of artifacts within the history of communities (for instance, literacy or the printing press). Ontogenesis examines personal developmental changes over the lifespan time of the person. Lastly, microgenesis, investigates the intricacies of conceptual development in short significant periods of time, offering insights into the cognitive and emotional processes underlying individual growth and transformation. Through this framework, Vygotsky provides a comprehensive lens for understanding the dynamic interplay between biology, culture, and cognition in shaping human development.

The four domains place temporality and history at the core of human life and development. It may be argued that three of these domains profile Chronos (time as sequential and durative) more prominently: phylogenesis, ontogenesis, and sociogenesis. The fourth domain, microgenesis, profiles Kairos (time as significant), since these are changes and crisis produced in short and opportune periods of time, which become extremely significant for the person because of the internalization of new tools for thinking, emotional events, or a combination of both. This fourth domain, central in learning processes, necessitates a new and simple theorization of temporality based on Kairos, and not Chronos.

The Theory/Practice Divide and a New Bridge: Research Methodology

In Second Language Acquisition (SLA), as in fields connected to learning and teaching, a recurrent issue of contention is the existing gap between academic discussions, theories, and the practical and pressing concerns of practitioners in the field, usually language teachers in the classroom. From a SCT perspective, Lantolf and Poehner (2014) argue for a pedagogical imperative in the field of SLA, a close connection between theory and practice articulated through the notion of praxis. As Lantolf and Poehner (2014) propose, part of the solution to the theory/practice divide is to work on teacher preparation programs to make sure they furnish future teachers with a strong grasp of psychological theories of learning and development and a scientific understanding of language, alongside opportunities for reflective practice within in-service training, and beyond.

From a different perspective, Medgyes (2017) attests that language teachers tend to do well without reading academic papers, but he contends that SLA researchers are the ones who really stand to benefit from closer collaboration with teachers. Researchers in social sciences need to be connected to a field of application. That is, researchers need to change their priorities and approximate their agendas to the ones of classroom practitioners.

Here it is proposed that the theory/practice gap can be overcome through a refined approach to temporality, research methodology, and the articulation of different criteria for the quality of studies. Viewing the issue as a strict division between only theory and practice is inherently problematic, neglecting the role of research methodology. By conceptualizing research methodology in a more nuanced manner, it can serve as a viable link between theoretical proposals and practical application in classrooms. This perspective suggests three key actions:

firstly, redefining the theory/practice dichotomy as a trichotomy including theory/research methodology/practice; secondly, reassessing the construction of research methodology beyond the qualitative-quantitative binary to include action-grounded research as a distinct category, not merely a subset of qualitative research. Third, redefining action-grounded transformative research from a sociocultural perspective.

Research Methodology and Time

The conventional application of research methods in Social Sciences does not focus on temporality. Time is an abstract given. It is implicitly conceptualized as chronological time, manifested through longitudinal studies involving the collection of quantitative or qualitative data at various intervals (mainly before, during, and after), or contrastive experimental designs comparing pre- and post-intervention outcomes. These implicit and reasonable research assumption are based on time as chronos. This limit practitioners and researchers to fully explore the cultural, historical, emotional, and creative dimensions and changing quality of learning, development, and identity forming processes mediated by cultural tools. The relevance of defining time for research is connected in my own research to the field of L2 (second language) teaching and testing, although the proposals outlined here may be applied to the general fields of Social Science, philosophy of science, research methodology, psychology, linguistics, anthropology, and pedagogy.

One of the preliminary conclusions of the analysis so far is that time framing is indeed a powerful cultural presence in human activities, which also shapes researchers' studies and practitioners' practical concerns. A different framing of time may also bridge the gap between academic theory and professional practice.

Re-framing time as a sociocultural category liberates researchers of several static and powerful assumptions:

1. Time in research is mostly considered as chronological duration.
2. Research explanation, when considering the temporal dimension as chronological, is only either causation (significant sequentiality in time) or ethnographic documentation of events (capturing change through longitudinal temporal rich descriptions).
3. Research methodology is only qualitative (observation and documentation of events) or quantitative (counting and measuring of variables).

As an alternative route, I propose:

1. Time encompasses not only chronos, but also Kairos, emphasizing the creation of emotionally significant moments as critical opportunities.
2. Explanation involves promoting mediation, engaging units of analysis for concrete objects of study, and creating mediational tools that shape human interactions and experiences;
3. Research entails designing creative interventions and charting the pathways of mediation, aiming to promote deeper creative/artistic participation in human life.

One of the primary implications of the present argument on temporality lies in a re-examination of the two mayor research approaches, encompassing both quantitative and qualitative proposals, which predominantly operate within the framework of linear

chronological time. The categories employed, measurement techniques applied, documentation of phenomena, and delineation of structural relationships—whether causal or otherwise longitudinal—implicitly or explicitly, adopt a chronological perspective (linear, durative, sequential, simultaneous, connected, or delayed). To go beyond Chronos, a third route for research methodology is charted in the next section. This is Transformative Research (TR), praxis and action-grounded, arts based, participatory, and sociocultural (units of analysis focused), grounded on Kairos temporality, framing an alternative approach to chronological quantitative and qualitive research methodologies.

Transformative Research (TR) as Participatory, Kairos-centered, and Epic

When it is implicitly assumed that significant time in human development is only Chronos, research is about counting, measuring, documenting, and sequencing longitudinal processes. When time is recognized as being also Kairos, research is about designing, intervening, promoting, capturing, framing, and charting transformations. In this way, practitioners and teachers may focus on significant lived experiences as generative transformative moments that loom large and orient future actions. This is especially critical when focusing on microgenesis or what Negueruela Azarola (2011) refers as semiogenesis: changes in the conceptual domain of learners. Kairos, also situates notions such as *perezhivanie* (Vygotsky, 1994), as critical significant moments that become a proper unit of analysis in personality development, and even in teacher professional development programs (Ferrer & Barahona, 2024)

From Action Research to Transformative Research (TR)

Crookes (1993), advocating for action research in SLA, reports that teachers often perceive academic research as insufficiently relevant to their daily realities for several reasons. Firstly, the preliminary nature of certain lines of research renders their findings seemingly irrelevant to the immediate challenges faced by educators in classrooms. Additionally, the impossibility of tailoring research to address specific cases further exacerbates this disconnect, leaving teachers feeling unsupported in their unique contexts. Unrealistic expectations compound the issue, as educators may naively anticipate discovering a singular "right theory" capable of resolving all their pedagogical dilemmas. Furthermore, the rhetorical format and abstract concepts commonly employed in research literature tend to serve the interests of researchers rather than practitioners, creating a barrier to comprehension and practical application for teachers seeking tangible solutions in their day-to-day work.

Beyond action research, Participatory Action Research (PAR) argues for a collaborative approach to inquiry that places emphasis on empowering participants to control every aspect of the research process. As outlined by Tandon (1988), participants wield authority over the agenda of inquiry, data collection methods, analysis techniques, and even the dissemination of outcomes and publications. This model prioritizes the criticality of participants, recognizing them as the primary generators of knowledge that is not only relevant but essential for their contexts. McTaggart (1997) emphasizes the centrality of participation in PAR, distinguishing it from mere involvement; participants are not passive recipients but active contributors who shape the direction and outcomes of the research. PAR involves a reflective process, particularly in educational settings where teachers engage in action research to address immediate challenges. Despite its expedited nature, often characterized as "quick and dirty,"

PAR challenges traditional definitions of learning, language, and development, drawing from diverse paradigms to foster inclusive and transformative research practices.

From the present perspective, participation and action research are about praxis: the sociocultural promotion of significant changes, where Kairos grounds the significance of opportune moments of change. This is transformative research (TR). First, the point in TR praxis is not to collect data on teaching and learning practices, but it is the actual intervening and designing new ways of acting what produces and promotes a different kind of understanding, teaching, and learning for both researchers and practitioners. In this sense, TR is socioculturally-based research when mediation and units of analysis are the central focus of an interventionist project or research agenda. Drawing inspiration from Vygotsky's genetic method for studying human development, and a Kairos understanding of significant time, the point of TR is to find units of analysis inside practical contexts as the key to transformative activity. This requires understanding and operationalizing for practitioners the idea of unit of analysis (Negueruela-Azarola et al., 2024).

To give an example from research on concept-based teaching of L2 grammar, TR research is about designing materials for the classroom based on a unit of analysis. These materials need to be based not just on personal experience of teachers, or only on their immediate concerns, but on finding productive and applicable units of analysis for teaching/testing. For the teaching of L2 grammar, Negueruela (2003) proposes that this is the grammatical concept and not the L2 grammar rule. This is a considerable shift for the teaching of L2 grammar, which leads to promoting different actions when designing materials and interventions (see also Negueruela, 2008).

A Transformative Take to Research

This paper is a preliminary presentation of what a TR research agenda would look like. This is a research agenda to overcome the real and pervasive distinction between theories and practice through research methodology. As has been argued, both quantitative and qualitative approaches to research, despite their considerable differences, understand and approach time as simple perceived duration of events, qualified as sequential (quantitative) or longitudinal (qualitative). Still, both are chronologically based. It is proposed that one of the keys to keep advancing a commitment to practitioners in the field is to take an ontological step and transform how time and history are understood in research.

TR has four basic features: (1) TR is action-grounded praxis approach to research: the point is not to collect data to act but acting in concrete professional contexts through creating protocols, tasks, interventions is research which creates a unique type of significant understanding; (2) TR is arts-infused: artistic expression is a privilege form of interventionist research to promote development; (3) TR is sociocultural: framed through units of analysis for concrete objects of intervention or study. (4) TR is epic: it is about storytelling by participants. (5) The topology of time in TR requires a conceptual shift in research from chronological linearity and taxonomic tables to kairos and priority grids as action-grounded, unit of analysis framed in interventionist designs. Table 1 below summarizes distinguishes main feature of three main types of research: quantitative, qualitative, and transformative.

Table 1

A Proposal for Three Types of Research and Their Defining Features

	Quantitative	Qualitative	Transformative Research
Time Topology	Line	Table	Grid
Research Activity is	Experimenting, counting, and measuring	Experiencing, observing, and documenting	Designing, intervening, and telling
Time	Chronos	Chrono-topes	Kairos
Epistemology	Etic (top-down)	Emic (bottom-up)	Epic (arts-infused)
Logic	Deductive	Inductive	Abductive
Focus of Study	Variables and causality relationships	Rich description of contexts, participants, and practices	Units of analysis for concrete objects of studies
Developmental Action	Doing time	Making time	Crafting time

In quantitative research, the object of study is approached with a focus on quantification through variables. A quantitative research methodology employs a deductive logic of analysis, testing hypotheses through studies to confirm theoretical proposals. Subjects are viewed as objective participants, and the role of the researcher is to present objective findings. Data elicitation typically involves surveys, standardized tests, and experimental tasks aimed at collecting measurable data such as language samples. The analysis relies on descriptive or inferential statistics to draw conclusions. Criteria for evaluating studies in quantitative research often revolve around reliability, validity, replicability, and statistical generalizability, aiming for consistent, correct, repeatable, and predictive results, respectively. Time in learning is theorized linearly and chronologically.

Qualitative research, on the other hand, deals with subjects that cannot be quantified without altering their essence partially or totally. It employs an inductive logic of analysis, focusing on rich descriptions of data through observation to understand complex situations. Subjects and researchers are seen as subjective participants, with the researcher tasked with documenting subjectivities. Data elicitation methods include ethnography, narrative sources like diaries and interviews, and they are often reported as case studies. Analysis in qualitative research often involves discourse and thematic analysis to uncover underlying meanings and patterns. Evaluation criteria emphasize dependability, comprehensibility, applicability, and transferability, seeking sound, complete, concrete, and understandable insights that can be applied to various contexts.

In Transformative Research, what I am proposing here, the object of study is approached with the intention to promote change through active participation. This methodology employs an abductive logic of analysis, focusing on promoting development by establishing unique, even artistic, connections that may change orientations and practices of participants. Subjects and researchers engage in a dialectical relationship, with the researcher often becoming a participant and vice versa. Data elicitation methods include transformative narratives (Negueruela Azarola & Gavela-Ramos, 2024), artistic expression (Connery et al., 2010) documentation of mediation and conceptual triangulation (Negueruela, 2003), and reports on practices. Data analysis focuses on documenting the process and results of transformation by searching for specific units of analysis for concrete objects of study, emphasizing the development and transformation of participants and practices. Evaluation criteria prioritize transformativity (Is there an identified concrete unit of analysis?), aiming to promote personal

change in both practitioners/researchers and participants, alongside criteria like feasibility (Is the intervention design simple enough to be transferred to different contexts?) and applicability (Is the research action-grounded? Does the research begin by applying an insight in a concrete context? Are proposals applicable?). Examples of TR are found in the following recent doctoral dissertation: Madinabeitia Manso (2020), Ferrer Rovira (2022), Peña Pascual (2023), and Medialdea Guerrero (2024).

Research as Crafting Interventions and Producing Storytellers: An Epic Approach

Scientific research from a TR stance is about grounded-action, crafting interventions and designing tools and prototypes where participants may engage in arts-infused research. This is an alternative path of research that is not usually part of the discussion of practices in research in social sciences. Indeed, research is also about being engaged in shaping and designing an intervention through iterative processes, as the locus of research. This is the beginning of research and not the end. The end of research is the story. Art-based research (McNiff, 1998), such as autoethnography, digital stories, and dual ethnographies may allow participants, including the researcher, to dialogically delve into the intricacies of human experience and interaction. Furthermore, the subject matter of research in the case of SLA, it is not the language, not even the participants, but the relationship established between participants through language, which includes researchers/teachers/learners, whose subjectivity should be explored beyond some basic biodata. Researchers are part of the story and should engage in auto-ethnographies, dual ethnographies, and personal portraits. Exposing subjectivity is a requirement for objectivity.

Drawing from these insights, I advocate for exploring an epic approach to TR, as articulated by Negueruela (2011) and Negueruela-Azarola and Gavela-Ramos (2024), where the narrative potential of storytelling, employing creative writing techniques to teach participants and researchers to tell their stories as creative non-fiction, is also a new point of departure. It is not only the researcher/observant who creates the story to tell in a research article. It is also the participants, participating (redundancy intended) in artistic creation, the ones who engages in understanding their own actions, which is what creates development in the first place. These are also the stories that need to be crafted and analyzed as research stories. See main features in Table 2 below.

Table 2

Differences between an Etic, Emic, and an Epic Approach to Research

	Etic	Emic	Epic
Objective	Pursues objectivity in observations about the researched as an individual.	Pursues subjectivity in observations of the researched as a participant.	Seeks to make the subjectivity of the researched explicit by encouraging their own participation in the research.
Role	The researcher observes the researched as an object of study.	The researcher attempts to become part of the community of the researched.	The researcher teaches the researched to become a researcher by telling their own story.
Focus	Formal and quantifiable aspects of research.	Contextual aspects of research.	Narrative aspects of personal and social history.

Key	Explanation and causality.	Documentation and description.	Narrativity and dialogical relevance.
Voice and Scientific Genre	Expressed in third-person grammatical observations and impersonal forms (he, she, they, etc.).	Expressed in first-person grammatical observations (I, we).	Expressed in first- and second-person narratives in which the researched participates (I -you)
Genres	Scientific report.	Field notes. Ethnographic observation.	Personal story or narrative. Tool representation Conceptualization tasks
Examples	"The A2-level Spanish student masters subject-verb agreement."	"I observe how students participate enthusiastically in pair activities and use conjugations well."	"After a moment of frustration, I felt that the meaning of communication had changed for me…"
Examples	"The student successfully completes the word classification task into nouns and adjectives."	"We spent a good amount of time on the diagrams. Some students didn't understand well what they were supposed to do, so I tried to help…"	"I visualize the agreement in this diagram as a train car and its relationship to the railway line. If you make a change to the car wheels, you must also change the rails."

Note: Translated from Spanish into English in Negueruela-Azarola and Gavela-Ramos (2024)

Conclusion: Challenging "there is no time"

In this article, I have proposed a distinct temporal conceptualization of time through two inter-related temporal concepts: Chronos and Kairos. I argue that time in social sciences should go beyond both chronological quantitative causality and chronological qualitative documentation. Times requires nuanced theorization through the notion of kairos. Unlike "Chronos," or sequential time, kairos represents significant, conceptual, and emotional moments of change.

From this temporal distinction, I have suggested that time, as a cultural practice, may be represented at three basic levels: a linear continuum at the perceptual, causal, quantitative level; a fixed table at the analytical, qualitative, and taxonomic level; and as creative, emotional, conceptual grid/moments at the identity developmental level**.** This third level is where Kairos becomes action-oriented and arts-infused. Kairos focuses on practitioners, teachers and students in educational contexts, acting as agents of artistic representation, capturing meaningful moments through stories, photography, poetry, music, multimedia, or other creative significant practices.

At the research level, Kairos allows me to propose that time should shift from chronological quantification or documentation to creatively promoting/charting Kairos. I present an interventionist, arts-infused research lens focused on transformative "Kairos" — creative, conceptual, emotional moments of time. A Transformative Research (TR) approach to time means fostering socioculturally-mediated, action-grounded transformative practices. TR encourages participants (including researchers) to share personal stories and engage in rich, creative inquiry where the design of teaching/testing protocols and practices are research tasks. Ultimately, I propose that a Kairos-based understanding of time can inspire a transformative research agenda for grounded-action in professional contexts

Considering the integration of research into practitioners' professional life and personal development poses a multifaceted challenge. The most important obstacle to overcome is the feasibility of allocating significant time for reflection, intervention, and engagement. Ensuring that educators not only have the time, but change their very conception of time, and also

prioritize it, necessitates a shift in perspective towards recognizing time as Kairos, emphasizing conceptual arts-infused moments for meaningful engagement rather than merely chronological scheduling. Some of these changes are not to be implemented at the individual level, but by communities, administrators, and stake holders.

Academically, and ontologically, synthesizing research protocols with teaching and assessment frameworks becomes imperative, fostering a seamless integration of research practices into everyday professional or pedagogical activities. This integration extends to arts-infused transformative practice reports, which require a different approach to research. Participants need to feel the necessity and the recognition to creatively craft a report/story of their transformative experiences. Such stories/reports should incorporate collaborative narratives from researchers and teachers, detailing their experiences with units of analysis for specific objects of study, documenting the development of mediational tools and protocols, and capturing the developmental journey within professional contexts. By addressing some of these challenges, researchers and practitioners may leverage TR as a dynamic force for significant professional growth, solid research, and significant pedagogical practices.

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