Electronic Journal of Research in Educational Psychology
E-ISSN: 1696-2095
jfuente@ual.es
Universidad de Almería
España

Ruiz Carrillo, Edgardo; Bravo Sánchez, Luisa; Meraz Martínez, Samuel; Cruz González, José Luiz

IRE/F Structure Analysis in Student Expositions during Nursing Practices with SDISGSEQ

Electronic Journal of Research in Educational Psychology, vol. 15, núm. 2, abril-septiembre, 2017, pp. 422-440
Universidad de Almería
Almeria, España

IRE/F Structure Analysis in Student Expositions during Nursing Practices with SDIS-GSEQ

Edgardo Ruiz Carrillo[1], Luisa Bravo Sánchez[2], Samuel Meraz Martínez [3] & José Luiz Cruz González[1]

[1] Psychology Department, National Autonomous University of Mexico
[2] Nursing Department, National Autonomous University of Mexico
[3] Biology Department, National Autonomous University of Mexico

Mexico

Correspondence: Edgardo Ruiz Carrillo. Lisboa N° 5 Jardines de Bellavista Borough, Tlalnepantla, State of Mexico, Zip Code 54054, Mexico. *E-mail:* edgardo@unam.mx

Abstract

Introduction. In clinical nursing practices where a student presents a class topic, the way in which discourse takes place has a complex formation that places him in an active subject position, but always under the coordination of the teacher. Presentations and activities carried out by the presenter in practice involve discourse-guided instruction sequences, as well as teaching methodologies used by the teacher, but transferred through discourse, which is important due to its action within class makes it a dynamic interaction element between teachers and students. The objective of the present research was to analyze discursive sequences of the presenter using SDIS-GSEQ software to understand their participation in class.

Method. Participants were second-semester students, eighth-semester students as practitioners, and a teacher, all of whom belonged to the FESI-UNAM Nursing Bachelor's Degree. Classes were recorded and later information was analyzed using SDIS-GSEQ software based on a discursive categories system.

Results. Obtained results show the presenter acting in three different ways: as an expert teaching students, as a trainee when taught by teacher and practitioners, and as an equal among students.

Discussion and Conclusions. It was concluded that the presenter can act with the student as a knowledge mediation agent, or of prevention in the discursive interaction between teacher and students by means of generating discrete monologues among experts.

Key Words: Observational Methodology, Discourse Analysis, Teacher-Student Relationship, Teaching-Learning Process, Triadic Dialogue.

Resumen

Introducción. En las prácticas clínicas de enfermería donde un alumno expone el tema de la clase, la manera en la que el discurso da lugar tiene una formación compleja que lo coloca en una posición de sujeto activo, pero siempre bajo la coordinación del profesor. Las demostraciones y actividades que realice el alumno expositor en la práctica implican secuencias de instrucciones guiadas por el discurso, así como metodologías de enseñanza empleadas por el docente, pero transmitidas a través de éste, lo cual es relevante debido a que su acción dentro de la clase le vuelve un elemento dinámico de interacción entre los docentes y alumnos. El objetivo de la presente investigación fue analizar las secuencias discursivas del expositor mediante el software SDIS-GSEQ para entender su participación en clase.

Método. Los participantes fueron estudiantes de segundo semestre, estudiantes de octavo semestre como practicantes, y una maestra, todos ellos pertenecientes a la carrera de licenciado de enfermería de la FESI-UNAM. Las clases fueron grabadas, y posteriormente la información fue analizada aplicando el software SDIS-GSEQ con base en un sistema de categorías discursivas.

Resultados. Los resultados obtenidos muestran al expositor actuando de tres formas diferentes: como experto al enseñar a los alumnos, como aprendiz al ser enseñado por la maestra y los practicantes, y como un igual entre alumnos.

Discusión y conclusiones. Se concluye que el expositor puede actuar como un agente de mediación de conocimientos con el alumno, o de prevención de la interacción discursiva entre el docente y sus alumnos por medio de generar monólogos discretos entre expertos.

Palabras Clave: Metodología observacional, Análisis del discurso, Relación maestro-alumno, Proceso de enseñanza-aprendizaje, Diálogo triádico.

Introduction

Nursing teaching and learning process is based on the integration of theory and practice, this is developed in institutions providing health services that act as clinical practice fields (Itto & Takahashi, 2005). Theoretical and practical knowledge conjunction is understood by trainees as experiences related to their daily lives, that is, as a social practice students and members. Learning to care occurs necessarily in the relationship between a student and a person cared for, which is achieved through care actions learned by students in the classroom, while guided by the teacher in clinical practices. In this context, the performance of the teacher becomes an important element of the learning process because as it is integrated with students in the clinical fields, it provides, through their experiences and knowledge, the bases and necessary support for the future development of Nursing professionals (Guedes & O'hara, 2009).

Clinical setting and active participation authenticity in professional practice are strong student learning motivators. These characteristics are focus in situated learning (Lave & Wegner, 1991) due to their importance into the social scenario in which students learn social practices. This is done through the interaction between expert members, who guide and support them with symbols and signs internalization in cultural scene, gradually integrating into a community or social practice culture.

A central characteristic of this learning type is the so-called legitimate peripheral participation in which students have a full participation in socio-cultural practices causing learning to be legitimized around (periphery) experts, who have a deep, dynamic, self-regulated, reflexive and strategic knowledge unlike a novice (Díaz Barriga, 2003). In training process, students learn behaviors from their teachers both in classroom and clinical practice through various methodologies, the teacher represents an important influence, positive and negative, as an example on how to care for patients in their expert role.

Electronic Journal of Research in Educational Psychology, *15*(2), 422-440. ISSN: 1696-2095. 2017. N° 42
http://dx.doi.org/10.14204/ejrep.42.16075

Teaching methods corresponding to the cognitive learning model (Brown et al., 1989) have shown their effectiveness in situated learning as being specific and helping students to acquire both cognitive and meta-cognitive skills, focusing in the expert performance observation during practice and facilitating in this way their own problem solving skills development (Stalmeijer et al., 2009). Among these teaching methods are modeling, where teachers or experts actively demonstrate and explain skills and procedures to their students; and *coaching*, where teachers or experts observe and provide specific and concrete feedback of their performance.

These theoretical and practical teaching methods are used by students and experts in order to generate skills required during the educational process and are mediated and coordinated through what is said and done in the teaching-learning process. The way in which discourse varies offers information on how semiotic mediation instruments modify cognitive functioning based on individuals participation in specific activity contexts (Prados & Cubero, 2005) and by this, it is important to analyze the discourse within Nursing formation process as an instrument mediating social context, which consists of interactions sets that provide a guideline in saying and doing, in this case, of theoretical and practical classes.

These patterns are characterized by being structures that organize classroom tasks. The IRE/F structure is a common discourse form in teaching-learning process (Nassaji & Wells 2000, Cazden 2001, Mehan 1979, Sinclair & Coulthard 1975), I stands for initiation, R response, and E evaluation, or follow-up / feedback (F, Follow-up / Feedback). Cazden (2001) uses it as IRE, while Nassaji & Wells (2000) as F to do not restrict the third step nature since it is not only an evaluation but also feedback to the response of the students. In fact, the IRF discursive pattern use in several studies (Morgan & Saxton, 1991; Norman, 1992), unlike the IRE pattern, allows to include more open communication elements as being a midpoint between discursive routine and the opportunity of the student to reflect on what was learned.

When a pattern is carried out properly, the teacher not only instructs, corrects, repeats and clarifies, but also makes movements that allow students to contribute and co-construct a problem understanding; then, the teacher encourages student participation in their role to interpret, initiate, negotiate, affirm, clarify and synthesize the knowledge built during laboratory practice that makes their learning more effective and allows a legitimation that involves the student more into the activities.

IRE/F pattern is developed so that first and third sequence part are carried out by the teacher, where he provokes the response of the student and then evaluates, follows up or provides feedback based on the traditional teacher view as a "primary connoisseur", which allows him to do so on the basis of his own knowledge considering that his experience is what the trainee needs to learn. IRE/F pattern has a formative nature when carried out in the school experience and negotiated by its participants, but coordinated by the guide of the teacher.

This is why the IRE/F structure is compatible with situated learning legitimating process, since it allows directing and generating a dialogue coordinated by the expert, in this case the Nursing teacher, who has a greater knowledge of class topics, as well as activities required to perform an appropriate Nursing practice. This structure has also generated the impression of making the student respond to already known information and expected by the teacher (Nassaji & Wells, 2000), which allows the latter to maintain control and direction of conversational interaction (Markee, 2000).

On the other hand, recent research (Jacknick, 2011; Waring, 2011) has made important observations in discourse where the student becomes an active subject in the interaction asking in search of specific knowledge with intention to redirect and seek knowledge and different intentions from those proposed by the teacher within the classroom (Waring, 2011), thus gaining the ability to address learning opportunities. This allows a discourse where the student begins the sequence, which consists of two main steps: a question of the student in search of knowledge or discourse redirection (P), and later a knowledge evaluation presented in student's question by the expert (E), which can also be the payback of the expert with knowledge sought and redirected by the student (F), thus forming a dyadic dialogue (PE/F).

The use of a question in the student shows potential to generate *post-expansions* (Jacknick, 2011), which are continuous student dialogues, who while looking for an agreement, only show the confirmation of the student to knowledge exposed by the teacher, but when a debate and confrontation situation is generated, interaction ceases to be minimal and leads to continuous returns between teacher and student creating a discursive interaction in which the leadership is more balanced, i.e., teacher sometimes leaves IRE/F dialogue moderating position; however, it does not mean that the teacher is not able to ignore or redirect the discourse back to a triadic dialogue as seen by Markee (1995) in counter-questions used by the teacher, which serve to limit the attempts of the student to express his own doubts, elements that show a power situation where teacher and student seek to occupy the leading place (Markee, 2000), of discourse address, using discursive sequence repair practices for its own purposes (Markee, 2004).

In the Nursing clinical practice where a student practices the class topic, the way in which discourse gives rise has a complex formation: the teacher, as primary connoisseur, has the function to coordinate significant class elements, while these are shown by a presenter student, instructing and serving as example of knowledge reviewed in a theoretical class within the practice. The way in which this presenter student addresses his peers, as an instructing agent in this school situation, makes this an important situation to be observed because places him in an active subject position, but always under the coordination of the teacher.

Students also contribute to the knowledge social construction through their participation as active subjects due to they are expected, while solving problems, to contribute with their opinions or change the activity meaning by introducing questions that give rise to new problems modifying the activities and / or dynamics content planned by the teacher. In this way, presentations and experimental activities carried out by presenter student in practice will then imply instruction sequences guided by discourse and teaching methodologies used by the teacher, but transmitted through it.

Objectives and Hypotheses

Based on previous information, the present study objective was to analyze the discursive sequences of the presenter using SDIS-GSEQ software to understand their participation in class, describing the way in which he performs as an expert while presenting, as a trainee when instructed by the teacher or practitioners, and as an equal to his peers when he cooperates with them to generate learning.

Method

Participants

A total of 16 second-semester Nursing Bachelor's Degree students (4 men, 12 women between 19 to 21 years old), 3 practitioners, students from eighth-semester Nursing Bachelor's Degree (women from 21 to 22 years old), and a Nursing teacher teaching Models and Nursing Theories Module of Iztacala Faculty of Higher Studies of the National Autonomous University of Mexico, all participants were Mexican.

Instruments

To ensure the highest data collection accuracy, a Canon VIXIA HF-R50 video camera with an external SHURE VF83 microphone was used by an investigator in the classroom, where the teacher taught, with the help of eighth-semester practitioners, the respiratory system palpation process.

The conversion instrument of observed data into analysis categories is a combination of field format and category systems, constructed by means of multiple and self-regulating codes on a theoretical framework based on discourse observable characteristics and IRE/F sequence occurrence. The generated matrix sought to account for information complexity corresponding to communicative flow as well as modulated the dichotomy between the qualitative and quantitative methodologies required by this study.

To generate the analysis categories, interaction lists were drawn up to reach the exhaustiveness and mutual exclusivity (E/ME) of categories, so that a category exists for each possible action and a possible action for each category of interest. Regardless their duration, each shift was coded according to considered dimensions, in this case, when each one of the conditions of the category were met. In this way, the coding generated based on theoretical framework and observations resulted in table 1.

Table 1. Discursive Categories Operational Definition

Sec.	Category	Subcategory	Coding
I	Instruct: Action where an expert (knowledge holder) gives information or knowledge regarding a topic to a trainee (in the process of knowing the topic(s)).	Explaining: Expose knowledge to make it more understandable through discourse.	Insexp
		Explaining with Models: Expose knowledge to make it more understandable through simulative models.	Insmexp
		Orienting: Direct the other towards context elements necessary for the activity.	Insori
		Guiding: Direct tasks related to the topic.	Insgui
		Ordering: Demand a task fulfillment.	Insord
	Modulator question: Action where an expert asks information or knowledge to a trainee in search of knowledge they have about a topic.	Evaluating any Participant: Determine any group member knowledge and / or skills.	Preeva
		Evaluating a Specific Participant: Determine a particular person knowledge and / or skills.	Predeva
		Eliciting: Know if there are doubts before an explanation or feedback.	Preson
P	Questioning: Action where a trainee asks for information to obtain knowledge regarding carried out practices.	Simple: No arguing or going into detail.	Presim
		Ordering: Generate an action on the other person.	Preord
		Orienting: Indicate context elements related to what is unknown.	Preori
		Explaining: Explain a question characteristics.	Preexp
R	Reply: Action where a trainee answers to an instruction or question showing the acquired knowledge.	Doubting: Use knowledge that is not yet structured.	Redud
		Ordering: Demand a task fulfillment.	Reord
		Confirming: Corroborate information.	Reconf
		Reinterpreting: Use reconstructed knowledge from what has been taught.	Rereint
		Simple: No arguing or going into detail.	Resim
		Explaining without Models: Expose knowledge to make it more understandable.	Reexp
		Explaining with Models: Expose knowledge to make it more understandable through simulative models.	Remexp
		Denying: Recognize the lack of self-knowledge.	Reneg
		Affirming: Recognize the presence of self-knowledge.	Reafi

E	Evaluate: Action where the expert calculates an assumption or topic validity expressed by a trainee or equal.	Validating: Valid the information shown by the other.	Evaval
		Rejecting: Invalid the information shown by the other.	Evarech
		Qualifying: Rate the knowledge acceptance level of the other based on a value judgment.	Evacal
F	Feedback: An action where an expert provides important information to learners about their previous observed and / or evaluated behaviors, intended to have learning and / or reflection opportunities.	Paraphrasing: Reinterpret a response given by the student in order to teach new understanding structures.	Fpar
		Correcting Explicitly: Explain where the error is located and immediately provide the correct answer.	Fcorr
		Recast: Rephrase phonetically the response of the student to that expected by the teacher.	Frec
		Explaining: Give an answer and clear explanation of it.	Fexp
		Explaining with Models: Give an answer and clear explanation of it using simulative models.	Fmexp
		Giving Clues or Hints: Give information about student's error using lexical keys that must relate to make sense and continue with the discourse.	Fclue

Due to categories are defined based on knowledge and intentions shown by the participant, any participant can present categories while fulfilling their requirements. In order to distinguish the role of who carried out the category, at the beginning of each a "**μ**" was placed in case it was presented by the teacher, a "**π**" by practitioners, "**ε**" in case of a presenter, and "**α**" in case of students.

Procedure

The teacher and Nursing Bachelor's Degree group were contacted and informed consent was obtained from the participants. There were 3 recording sessions of 2-hour duration each. Work was carried out following ethical code recommendations of the American Psychological Association (2010) psychologist, which indicate to work with the informed consent of the participants, keep their confidentiality by using pseudonyms to avoid the person identification, and inform them while they are being recorded, as well as their right to obtain the analyzed data transcription. After recording the class, shared discourses were transcribed, registering group nonverbal behaviors and actions, and actions where they interacted with the environment facilitating elements (blackboard, anatomical model, etc.).

Data Analysis

Once the recordings were transcribed, analysis categories were used in each discursive action performed by participants, generating a sequential grouping that later became the database. Structural analysis technique was used, translating these codes into the SDIS *(Sequential Data Interchange Standard)* language in order to implement the sequential analysis program GSEQ *(Generalized Sequential Event Querier)* created by Bakeman & Quera (1996). SDIS-GSEQ is based on an analytical technique developed by Bakeman & Gottman (1986) and Sacket (1979, 1980, 1987), whose methodological relevance is still in force (Bakeman & Quera, 2011) to analyze sequential data, and in this research to observe IRE and IRF patterns carried out during practice.

Results

The information obtained by sequential analysis allows to observe Z and P probabilistic levels with which the discursive flow can be interpreted by selecting the adjusted residuals and considering them as excitatory when promote a category appearance (with a value) or inhibitory if adjusted residuals are negative (Z <-1.96), showing that there is a smaller probability of negative category occurrence in the sequence.

This data was represented in a flowchart containing the highest probability sequences, showing discourses carried out between teacher, practitioners, students and presenter, (Figures 1 to 4), where the presenter acted in three different ways: as an expert (figure 1), as a trainee (figure 2 and 3), and as an equal among students (figure 4).

Presenter as an Expert

Once the Practitioner directs the presenter to carry out physical exploration, the presenter teaches this knowledge (**π**Insgui => **ε**Insgui). Subsequently, the practitioner continues giving information (**ε**Insgui => **π**Insexp), which the presenter exemplifies in a model (**π**Insexp => **ε**Insmexp), and finally ends with the practitioner validating the way in which the presenter taught that activity part (**ε**Insmexp => **π**Evaval).

Other ways in which is shown as an expert is in direct interaction with other students, since when a student asks detailing the question, the presenter provides feedback explaining the doubts (**α**Preexp => **ε**Fexp), and in case the student responds by corroborating information the presenter evaluates by qualifying (**α**Re-conf => **ε**Evacal). See Figure 1

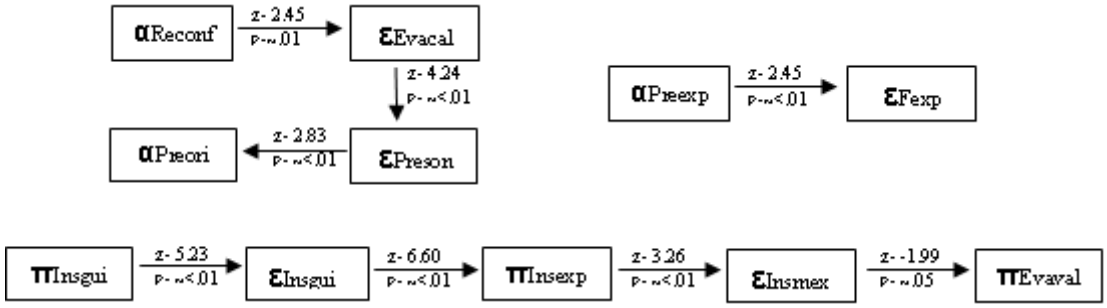

Figure 1. Discourse flows with presenter as an expert.

Presenter as a Trainee

The teacher and practitioner interact with the presenter as a trainee on several occasions where he responded to the teacher and practitioner; from all these sequences only a complete IRE is generated when the practitioner asked by evaluating (**π**Preeva => **ε**Resim => **π**Evacal), and a complete IRF when the teacher asked if there were doubts about what was explained (**μ**Preson => **ε**Remexp => **π**Fmexp), in this case, IRF sequence leads the Presenter to continue a dialogue with the Practitioner explaining with a model (**π**Fmexp => **ε**Remexp), on all other occasions, either the teacher or the practitioners restart the IRE sequence without evaluating or giving feedback to the presenter. See Figure 2.

http://dx.doi.org/10.14204/ejrep.42.16075

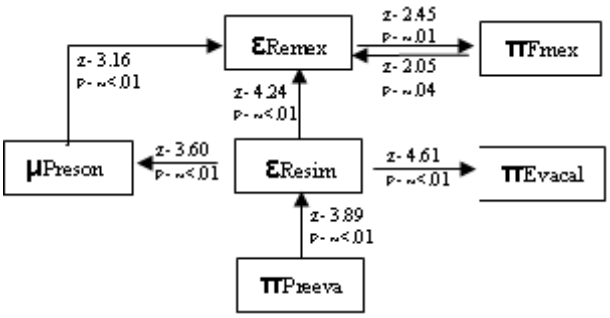

Figure 2. Discourse flows with presenter as a trainee in IRE/F sequences.

At the same time, the presenter asks for information, either by pointing out context elements related to what is unknown, or by exposing in detail his doubt, which culminates with the practitioner validating if his knowledge is correct (**ε**Preori, **ε**Preexp => **π**Evacal); or when he asks without detailing, the practitioner reformulates the question asked by the presenter (**ε**Presim => **π**Fpar), after this action the presenter seeks to corroborate this information (**π**Fpar => **ε**Reconf) until the practitioner evaluates his response as acceptable (**ε**Reconf => **π**Evacal => **ε**Reconf => **π**Evacal). See Figure 3.

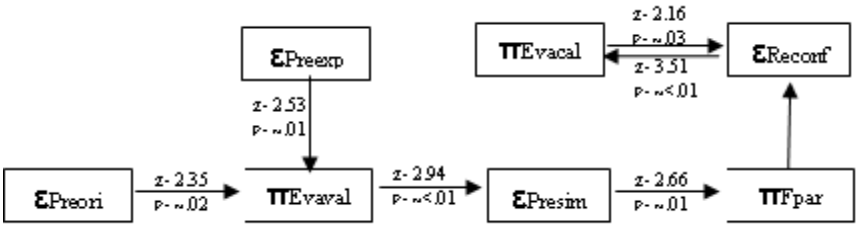

Figure 3. Discourse flows with presenter as a trainee in PE/F sequences.

Presenter as an Equal

Situations where the presenter interacted as an equal among other students were when one of them responded simply, emulating that same action (**α**Resim => **ε**Resim); or when the student responded by recognizing his own knowledge, which made the presenter asks additional questions to the teacher or practitioner instead of evaluating or giving feedback to the student (**α**Reafi => **ε**Preexp). See Figure 4.

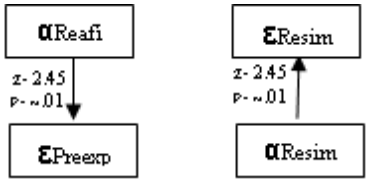

Figure 4. Discourse flows with presenter as an equal.

Discussion and Conclusions.

Sequences in the results show the Presenter in 3 different characteristics, as an Expert in instructing other students, as a trainee when instructed and evaluated by teacher and practitioner, and as an equal among other students when looking for knowledge in common.

The function of the Presenter as an expert exhibits him as a "primary connoisseur" to other students, able to occupy elements of the first and third IRE sequence part, and second PF sequence part; when students responded by corroborating information led the presenter to evaluate information shown by the student and ask for questions, this final movement seems to "grant" the leading role to the student, who later asked for guidance, i.e., the presenter's eliciting question allowed to transfer, temporarily, discursive control to the student, thus giving him the ability to redirect attention to his specific doubts.

On the other hand, when students asked in detail about some doubt, presenters gave feedback explaining these consistent doubts. This sequence shows that the presenter sought to accompany the process of understanding the meaning of these practices by the student with what his knowledge could provide, instead of "moderating" the discourse evaluating the knowledge of the student showed in the details of his questions.

These movements show that during interactions in which the student asked the presenter, he collaborated within the discursive structure, generating conditions where the initiatives of the trainee led to move on the teaching agenda and also through eliciting questions,

Electronic Journal of Research in Educational Psychology, *15*(2), 422-440. ISSN: 1696-2095. 2017. N° 42
http://dx.doi.org/10.14204/ejrep.42.16075

allowed the students to initiate PE/F sequences, which implied the presenter, in his expert role, as a cornerstone that requires understanding and balancing trainee's participations (Waring, 2011), and in this case, able to manage his participations and sequential initiations to grant the discursive sequence beginnings to other peers in order to allow them to ask questions.

However, when communicating with practitioners, they gave continuity to the explanations of the practitioner and guides by generating a unidirectional teaching structure where the student did not show up in the dialogue, this can be seen as an instruction chain within an IRE/F sequence where the experts are protagonists of discourse, and a sequential set that demonstrates that just as the presenter is able to promote student participation, is also necessary to generate discrete monologues intended to expose exhaustively necessary elements to be understood during the class through conversational interaction control and direction (Markee, 2000) as were the understandings on how to perform palpation of the patients.

Moreover, the presenter as a trainee addressed the teacher and practitioner, either within an IRE/F sequence when responding or within a PE/F sequence when asking about his doubts. When the presenter responded within an IRE/F sequence lacking depth regarding his doubt, the practitioner evaluated by qualifying or the teacher initiated another sequence by asking; when the presenter responded by explaining consistently and using the model, the practitioner provided feedback, leading to this sequence post-expansions where presenter and practitioner used the model as a situation of knowledge teaching and negotiation. This shows the model as a facilitator and also that it is not necessary for the trainee to initiate sequences to observe post-expansions, triadic structures can also generate post-expansions through feedback, in this case, through a model.

When the Presenter sought to resolve his doubts and abandoned the IRE/F sequence asking himself, he could also ask without going into detail, or otherwise exposing his questions in detail, as well as asking for attention to environment elements. However, when the question explained the doubt in detail or directed the attention to context objects, the practitioner only validated the information contained in the question; and in case of a simple

question there was a feedback without adding knowledge, that is, where only question syntax was corrected. This led to the presenter confirming, returning it to an IRE sequence where those corroborations were qualified by the practitioner.

These sequences together show post-expansions that seek a knowledge agreement with the practitioner in expert role, and when the presenter returned to IRE sequence generated non-minimal post-expansions where the presenter had a feedback. This showed a debate situation (Jacknick, 2011) where the presenter was constantly subject to evaluation by the practitioner, showing that the practitioner considered that the exhibitor already possessed necessary knowledge to fulfill his function as "primary connoisseur" and only needed to be evaluated so that the presenter could fully understand them. During this situation, discourse control and interaction leadership was manipulated by the practitioner, for whom the evaluation was part of his repair practices (Markee, 2004) by allowing him to switch from a PE/F sequence to an IRE/F.

On occasions where the presenter acted as a trainee with other students, he sought to supplement his knowledge by asking detailed questions to the teacher or practitioner after other students stated they had understood the topic, showing that the presenter could also be left with doubts about shared knowledge, and as such sought to consistently solve them by asking questions that allowed interaction redirection during the class (Waring, 2011) intended to seek this specific knowledge.

The model presence is remarkable in interaction within this Nursing practice, with which the IRF sequence led to post-expansions, generating a constant dialogue between presenter and practitioner, showing that environment elements presence facilitates topics understanding and also, facilitates more interactive discursive structures generation between trainee and expert, in the present research their use led to the presenter being able to explain his knowledge, and the practitioner was able to provide feedback using a model, demonstrating its usefulness to contextualize the educational discourse.

On the other hand, the situation of the presenter in the classroom requires further investigation, since as he is able to generate conditions where his peers are able to possess instructional control through questions, he is also able to cut off any interaction between them and teachers, generating continuous instructions that reduce the student to someone who must listen to mediated learning in discourse of the experts without being part of them.

Among the different *limitations* of this study is the generation of data, which can only be carried out by finding similar results to those obtained in other educational contexts, as well as observation level used, being of simple events, ignores actions temporality presented in the classroom, finally using a tracking / nomothetic / one-dimensional model (S/N/U) each category was observed in a single dimension, perhaps ignoring other elements that could occur concurrently with described and observed elements, that is, ignoring events multidimensionality that occur in the discourse. Therefore, it is advisable in future research to observe presenters in different educational environments, as well as to analyze more thoroughly the discursive interaction that teachers keep with them, and the time each participant occupies in classroom discourse to find characteristics that predispose the presenter to be a mediation agent or to prevent discursive interaction between the teacher and students.

References

American Psychological Association. (2010). *Ethical principles of psychologists and code of conduct*. Recuperado de http://apa.org/ethics/code/index.aspx

Bakeman, R., & Quera, V. (1996). *Análisis de la interacción: Análisis secuencial con SDIS y GSEQ*. Madrid: Ra-Ma.

Bakeman, R., & Gottman, J.M. (1986).Observación de la interacción: Introducción al análisis secuencial. Madrid: Morata.

Bakeman, R., & Quera, V. (2011). *Sequential analysis and observational methods for the behavioral sciences*. Cambridge: Cambridge University Press. http://dx.doi.org/10.1017/cbo9781139017343

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational researcher*, *18*(1), 32-42. http://dx.doi.org/10.3102/0013189X018001032

Cazden, C.B. (2001). *Classroom Discourse: The Language of Teaching and Learning, Portsmouth,* (2nd ed.), NH: Heinemann

Díaz-Barriga, F. (2003). Cognición situada y estrategias para el aprendizaje significativo. *REDIE. Revista Electrónica de Investigación Educativa*, *5*(2), 1-13.

Guedes, G. F., Ohara, C. V. D. S., Silva, G. T. R. D., & Franco, G. R. R. D. M. (2009). Ensino clínico na enfermagem: a trajetória da produção científica. *Revista Brasileira de Enfermagem*. http://dx.doi.org/10.1590/S0034-71672009000200018

Ito, E. E., & Takahashi, R. T. (2005). Publications about nursing education in the Revista da Escola de Enfermagem da USP. *Revista da Escola de Enfermagem da USP*, *39*(4), 409-416. http://dx.doi.org/10.1590/S0080-62342005000400006

Jacknick, C. M. (2011). "But this is writing": post-expansion in student-initiated sequences. *Novitas-ROYAL (Research on Youth and Language)*, *5*(1), 39-54.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge university press.´

Markee, N. (1995). Teachers' answers to students' questions: Problematizing the issue of making meaning. *Issues in Applied Linguistics*, 6(2): 63-92.

Markee, N. (2000). *Conversation analysis.* Mahwah, NJ: Lawrence Erlbaum.

Markee, N. (2004). Zones of interactional transition in ESL classes. *The Modern Language Journal*, *88*(4), 583-596. doi:10.1111/j.0026-7902.2004.t01-20-.x

Mehan, H. (1979). *Learning lessons*. Cambridge, MA: Harvard University Press.

Morgan, N. & Saxton, J. (1991). Teaching, questioning and learning. London: Routledge.

Nassaji, H., & Wells, G. (2000). What's the use of "'triadic dialogue'?: An investigation of teacher-student interaction. *Applied linguistics*, *21*(3), 376-406. https://doi.org/10.1093/applin/21.3.376

Prados Gallardo, M. D. M., & Cubero Pérez, R. (2005). Construcción del conocimiento y discurso educativo. Una aproximación al estudio del discurso de profesores y alumnos en la universidad. *Avances en Psicología Latinoamericana*, *23*, 141-153. http://hdl.handle.net/11441/31141

Sackett, G.P. (1979). The lag sequential analysis of contingency and cyclicity on behavioral interaction research. In J.D. Osofsky (Ed.).Handbook of infant development (pp. 623-649). New York: Wiley.

Sackett, G. P. (1980). An initial investigation of the usability of conversational data for doing Sociology. In D. Sudnow (Ed.), Studies in Social Interactions. New York: Free Press.

Sackett, G. P. (1987). Analysis of sequential social interaction data: Some issues, recent developments, and causal inference model. In: J. Osofsky (eds.), Handbook of infant development. (pp. 855-878). New York: Wiley.

Sinclair, J. & M. Coulthard (1975). Towards an anaylisis of discourse: The English used by teachers and pupils. Oxford: Oxford University Press

Stalmeijer, R. E., Dolmans, D. H., Wolfhagen, I. H., & Scherpbier, A. J. (2009). Cognitive apprenticeship in clinical practice: can it stimulate learning in the opinion of students?. *Advances in health sciences education*, *14*(4), 535-546. https://doi.org/10.1007/s10459-008-9136-0

Waring, H. Z. (2011). Learner initiatives and learning opportunities in the language classroom. *Classroom Discourse*, *2*(2), 201-218. http://dx.doi.org/10.1080/19463014.2011.614053