The aim of this study was to know the experience of the teachers of a public institution of higher education inclusive. This is a survey held with teachers 24 lecturers in 2013. It was found that the minority of professors showed some knowledge to deal with students with special educational needs, some of the professors reported that they have had experiences in dealing with these students and the most of them showed appropriate methods to teach these students. These previous lectures’ experience showed so important to think in exact educational strategies for students with special educational needs. This study indicates that it is necessary to include the inclusive education methodologies in the undergraduate and post graduate syllabus.

Descriptors: Higher education; Faculty; Mainstreaming (Education).

O objetivo desse estudo foi conhecer a experiência dos docentes de uma instituição pública acerca da educação superior inclusiva. Trata-se de uma pesquisa quantiqualitativa, realizada com 24 docentes em 2013. Verificou-se que a minoria dos professores teve algum tipo de capacitação para lidar com alunos que possuem necessidades educacionais especiais, mas a maior parte já teve a experiência de lidar com esse discente em sala de aula e apresenta metodologias de ensino adequadas à diversidade. Essa experiência prévia mostrou-se fundamental para gerar disponibilidade no docente em pensar as estratégias de ensino e aprendizagem adequadas para qualquer aluno. O estudo aponta a necessidade de incluir nas grades curriculares das graduações e pós-graduações a discussão acerca das estratégias metodológicas para o ensino inclusivo.

Descritores: Educação superior; Docentes; Inclusão educacional.

El objetivo de este estudio fue conocer la experiencia de los profesores de una institución pública a cerca de la educación superior inclusiva. Esta es una encuesta celebrada con 24 profesores en 2013. Se constató que una minoría de los maestros tenía algún tipo de formación para hacer frente a los estudiantes que tienen necesidades especiales, pero la mayoría han tenido la experiencia de tratar con estos estudiantes en el aula y presenta los métodos de enseñanza adecuada a la diversidad. Esta experiencia previa fue fundamental para generar en el profesor disponibilidad para estrategias de enseñanza y el aprendizaje adecuadas para cada estudiante. El estudio muestra la necesidad de incluirse en los planes de estudios de grado y postgrado, las discusiones de estrategias metodológicas para la educación inclusiva.

Descripores: Educación superior; Docentes; Propensión (Educación).

1 Physiotherapist. Specialist in Neurological Physiotherapy. Master of Special Education. Student Assistance Center of the Federal University of Triângulo Mineiro (UFTM), Brazil.
2 Biomedical. Master of Biochemistry and Immunology. Doctorate student in Immunology and Biochemistry from Federal University of Minas Gerais, Brazil.
INTRODUCTION

The discussion of inclusive education is, for some time, present in kindergarten and elementary education. However, by the greater access to higher education, university education for professional development and the arrival of students with disabilities in higher education, there was the need to discuss the inclusion also at that level. The Census of Higher Education is showing this increase in enrollment of students with disabilities, from 5,078 in 2003 to 23,250 in 2011 (358%). This increase is even more expressive in private universities.

The Special Education National Policy in the Perspective of Inclusive Education points out that in Higher Education the attention to students with special educational needs (SEN):

is realized through actions that promote access, retention and student participation. These actions involve the planning and organization of resources and services for the promotion of architectural accessibility, communications, information systems, the pedagogical and learning materials, which should be available in the selection processes and the development of all activities involving teaching, research and extension.

In the inclusive process, one of the dimensions of analysis is the pedagogical action, such as aspects related to the teacher, classroom, teaching and learning resources, methodological strategies used for the teaching of curriculum content and assessment strategies, considering the educational context in which this professional and the student are inserted and offered by the educational institution.

The lack of provision of training for teachers and professionals in the higher education institutions to receive students with SEN is constantly placed as one of the problems for the consolidation of inclusion in the university, as well as creating strategies to prevent exclusionary practices by the teachers. There are also identified the lack of research, lack of physical accessibility, little financial support for inclusive environment construction and lack of mapping and monitoring of the difficulties presented by students with SEN within the higher education.

Given the above, it was noted the importance to know the teachers’ experience of a public institution of higher education as the teaching and learning of students with SEN, inclusive teaching methodologies and student assessment, and level of training of teachers in inclusive education, accessibility or related areas. The objective of this study was to know the experience of teachers of a public institution on the inclusive higher education.

METHOD

The research had a cross-sectional design with quantitative and qualitative approach. For descriptive statistics and frequency of data after categorization of answers, the Statistical Package for Social Science (SPSS) version 16.0 was used. Qualitative/dissertation data were treated with content analysis, according to Bardin.

As a pre-analysis, the application script was prepared with systematization of the topics of the questions to facilitate the categorization of answers with multiple choice. The essay questions were categorized according to the answers that emerged in the sample. Then the analysis, interpretation and inference of the results was followed.

The sample consisted of active teachers, linked to any of the undergraduate courses of the Federal University of Triângulo Mineiro (UFTM). There were no limits related to the type of bond or degree.

Data were collected through a semi-structured interview script, prepared for this purpose, with 37 questions. This script collected identification data, such as age, gender, course, type of bond, teaching experience in higher education and if there is any disability or other special needs; general education teacher, as undergraduate area, specialization, master’s, doctoral, postdoctoral and specific training for teachers; methodological strategies of teaching; training, experience and opinions focused on Inclusive Education; and
The initial appreciation of the interview script was applied by education professionals from the Educational Development Center of UFTM, working with teacher graduation at this University, and five researchers in the Special Education Graduate Diploma in Special Education from the Federal University Program of São Carlos. A pilot test was conducted with five teachers of higher education of another institution. After consideration and pilot application, the interview script went from 22 to 37 questions to improve data collection and understand of the sample.

The interview script was sent via virtual source (e-mail), together with the Clearing Agreement and the Consent Term (TCLE), with the signatures of researchers, inviting teachers to participate. A copy of the TCLE signed by the participant teacher was collected in the departments of undergraduate or sent by the respondent of the research through the same email, along with the questionnaire responded in portable document format (pdf).

The sending of emails was between March and August 2013. There were 406 emails sent to teachers of Biomedicine courses, Life Sciences, Medicine, Physical Education, Nursing, Food Engineering, Industrial Engineering, Mechanical Engineering, Environmental Engineering, Electrical Engineering, Psychology, Social Work, Occupational Therapy, Physiotherapy, Arts, Nutrition, Degrees in Chemistry, Mathematics, Geography and History.

There were 24 responses received. Participants were encoded in P1 to P24, according to the order of arrival of the questionnaires. The results are presented on four guiding principles: 1) Sample profile; 2) Teacher training; 3) Methodological teaching strategies; 4) Experiences on Inclusive Education (students with SEN).

The project was approved by the Ethics Committee in Research with Human Beings of the Federal University of Triângulo Mineiro (UFTM), protocol 2281/2012.

RESULTS
Sample profile
Regarding the linked courses, 17 participants were in the area of Health, 4 in Humans and 1 in Exact. Two teachers did not respond to what course they were linked. Out of the 22 respondents, 23% (n=6) are from the Physiotherapy course, 11.5% (n=3) from the Physical Education courses and Occupational Therapy, and 7.7% (n=2) from the Social Service course. The remaining respondents are linked to courses of Biomedicine, Biological Sciences, Nursing, Food Engineering, Literature, Medicine and Nutrition. Most teachers had undergraduate on the same course where they were linked.

The average age of participants was 39.08 (SD±7.22), with people between 30 and 54 years old. Most of them, 79.2% (n=19) are female and has associate professor bond (62.5%; n=15). The sample was also composed of 4 assistant professors, 2 associated or free-teachers, two temporary and one substitute. No teacher had a disability or special need. The average teaching experience was 11.04 years (SD±8.55) and the average time they had finished their degree was 17.09 (SD±8.20). All respondents had Master degree, 75% have completed a doctorate and 8.3% had post-doctorate in progress.

Teacher training
Eleven teachers (45.8%) underwent training for teaching through post-graduate courses. Out of this total, 5 reported training through specialized courses in education or teaching in higher education, or teaching for health; 3 by their own graduation; and 2 by the course of Magisterium before starting higher education. A teacher reported the formation, but did not specify the course. Initiation into existing teaching in the curriculum of Master’s and Doctorate degrees was not considered as training for teaching in this research due to the variability of methodologies used by advisors or graduate programs.

Training on inclusive education, accessibility or related issues as part of the undergraduate curriculum was reported by graduate teachers in Physical Education and
Oliveira SF, Araújo NM

Occupational Therapy (16.7%; n=4). The participation in training courses in this area in graduate school was to 41.7% (n=10) of participants. They participated in training for teaching students with visual impairment (n=1) and hearing loss (n=1); inclusive education (n=1); special education and inclusion of people with disabilities (n=1); Sign Language (n=2); and a Masters in Special Education (n=2). One teacher participated in several courses related to Adapted Physical Education or teaching in the context of physical education for people with disabilities. Another participant also has several trainings for work in the area of inclusive education. Only two of these teachers did the training in UFTM (in Sign Language).

Methodological teaching strategies
All respondents consider that any student can learn. Among the factors that may hinder this student’s learning process, teachers highlighted in the script options, the motivation of the student and the teacher’s teaching strategy (Figure 1).

Figure 1: Participants according to factors hampering student’s learning. Uberaba, 2013.

The participation of teachers in this matter was very significant. Several of them made qualitative contributions and environmental factors were raised as important in the student learning process. These environmental factors could be categorized into teaching, structural and social, which are: 1) pedagogical: the lack of teachers for the special needs of the student (P23), the fragility of teaching in the early school years (P04, P10) precariousness in teacher training (P09), the didactic-pedagogic organization (P09); 2) Structural: precarious infrastructure of the higher education institutions (P09, P15), architectural accessibility (P14); 3) Social: no parental participation, exclusion from colleagues, insufficient family income and salaries of teachers (P14). All these environmental factors underlie the motivation of the student, the teacher and the teaching strategy. According to the participants, the process of teaching and learning is complex and each student and each class have different needs (P13); (...) It is influenced by several factors that make up the socio-historical individual (social, economic, political and cultural) (P16). It is interesting to note how less importance is given by the participants to organic factors, not modifiable, in relation to the learning process. In these factors difficulties would be justified related to deficiencies or student’s learning disorders.

The most teaching strategies used by teachers are spoken exposure (75%) of the class using visual resources (79.2%), such as multimedia projector, group work in the classroom (87.5%) and field work (58.3%) (Figure 2).
Among the evaluation strategies there are individual or group evaluations (62.5%), as shown in Figure 3. No participant teacher evaluates the student only by evaluations (oral or written) or only for individual works.

Figure 3 – Evaluation teaching strategies used by teachers. Uberaba, 2013.

Although only 45.8% of teachers have specific training for teaching, most of them are appropriate strategies for teaching and active learning methodologies such as group and field work. Participants highlight they evaluate and teach for participating in events, conversation circles and discussion forums, panels presentation (P10), awareness, questioning and active student search for content that contribute reflections in the classroom and in the field stage (P16), improvement and participation in class, attendance and punctuality, aid capacity in group activities, ethical sense toward classmates and teachers (P14).

Regarding the relationship with the students, most of the participating teachers observed to be moderated (58.3%; n=14), which was characterized in this study as one bond in which there is good relationship with each and knowledge of some needs/individuality of some students. A significant number (41.7%; n=10) establish strong bond with the students, knowing many in his individualities as the learning process. The strong bond for this research was where the teacher knows characterizing many of the students as their individualities in the learning process. The weak bond was the teacher who considers fulfill his role in the student education, relating and knowing the class of students in a more superficial way. In all these cases, the definition of bond was independent of any special needs of the SEN student.

As highlighted by P10, the amount of classes and subjects teaching, after-school activities undertaken and the ratio students/teacher can interfere with the quality of bond.

Experiences on Inclusive Education

Only five teachers (20.8%) studied with SEN people during their graduation, and in two cases these colleagues had physical disabilities. In the other three cases, the teacher had colleagues with visual...
impairments, intellectual and learning disabilities. As teachers, a greater number of participants (70.8%) had contact with students who have special needs. Eleven (45.8%) teachers have taught classes to students with visual disability, eight (33.3%) for students with physical disabilities, seven (29.2%) for people with learning disabilities, six (25%) for students with hearing disability and six for students with intellectual disabilities. One participant did not answer that question. Nine (37.5%) teachers had this experience in another university, six (25%) in UFTM and three (12.5%) in kindergarten, elementary or high school.

Most (58.8%) of these 17 teachers had difficulties in the beginning, but they were overcome during the teaching-learning process to the student with SEN. Thirteen of them (76.4%) reported that there were certain changes to teach them (Figure 4).

Figure 4: Difficulties and adaptations to teach related to teachers with SEM students. Uberaba, 2013.

The difficulties encountered are shown in Figure 5, along with the type of disability that was perceived as difficult. The main highlighting note of the participating teachers is the difficulty to develop methodological strategies for teaching these students. Teachers of Biomedicine and Physiotherapy courses encountered many difficulties for the student teaching with visual impairment in practical classes.

Figure 5: Teachers according to difficulties found when teaching SEN students. Uberaba, 2013.

Nine of the 17 teachers (53%) judged at the time not being necessary extra, material or personal/ professional resources to meet the student. However, from seven (41.17%) teachers who judged needing these resources, only two got them from the institution. Five teachers have cited other adaptations that were necessary, but four of them (23.52%) have adapted the assessment to the conditions of the student, three (17.64%) of them have made changes in the pedagogical proposal in the language of teaching material and the form of teaching.
practical lessons. A teacher highlights more time spent teaching these students.

Most participants (66.7%; n=16) are not considered ready for students with SEN. In all cases, the teacher says not having knowledge or training to do so. Two (8.3%) reported particular difficulties, as in the knowledge of the Sings language and Braille, while two others feel the need for specialized professionals close to them monitoring that student. Among those who specify it, SEN most cited as difficult for teachers were learning disorders (n=3), hearing (n=2), visual (n = 1) and intellectual disability (n=1). One of the teachers highlights the difficulty of differentiating what is a need of the student and what is a problem with the teaching methodology (P03).

Teachers who consider themselves prepared to work with these students, regardless of SEN (29.2%; n=7), justify such preparation in previous experiences. Teachers emphasize that they should be willing by the teacher to seek teaching strategies to students and discuss them with their conditions for learning (P10, P19). One participant points out that, although it is prepared to consider, they do not think that is possible, perhaps before the diversity of needs that we can find in the same group of disability or SEN (P05).

When specifying the type of SEN for teachers who considered themselves prepared, it was identified that 10 teachers (41.66%) consider themselves to be prepared to deal with students who have physical disabilities. Six (25%) cited the visual, five (20.8%) hearing, four (16.7%) the learning disabilities and one (4.2%) also intellectual disabilities. Two (8.3%) teachers considered to be prepared for any of the SEN. This preparation is due especially to the past experience, the degree course and training undertaken. A teacher mentioned that could be associated with institutional support and student interest (P10).

All participants agreed that the teacher must adapt to the presence of a student with SEN. Teachers think that ensure the quality of education, the success or the right conditions in the teaching-learning process is teacher’s role (54.16%, n=13), and learning is a right of the student (41.7%; n=10). A teacher agreed that teachers should adapt, but believed, however, that the resources needed for that student cannot hinder the performance of others (P11). Another participant stressed that the student must receive what is necessary without being placed as “center of attention” (P05).

In the research institution (UFTM), 17 teachers (70.83%) do not consider it affordable, 5 (20.83%) consider it accessible and 2 (8.3%) consider it available on some items. There were 18 teachers (75%) suggesting changes in attitudinal accessibility, 16 (66.7%) in access to information and 2 (8.3%) teachers suggesting changes in architectural accessibility. Teachers also mentioned that there is need for teacher training (P02, P05, P13, P23) and technical and administrative staff (P23), expansion of socio-political discussion (P16), paradigm changes on the subject (P09) and programs of care to the student (P12).

Almost all of the teachers surveyed (95.83%) considered that the institution should promote training courses on the subject for teachers and technical-administrative, and the suggestion of themes were for teaching people with different disabilities or learning disorder, including didactic and pedagogical strategies; attitudinal barriers; psychological development and education; inclusion and education; rights and citizenship; socio-historical, economic and political issues. Training on strategies for teaching were cited by more teachers (37.5%; n=9). Teachers also suggested forums for discussions and training on inclusion for students of degree courses.

DISCUSSION

The research results show that the perception of a group of teachers, mostly doctorates, of health care area and teaching experience in higher education more than 10 years, there is the need for training so that they can make inclusion in higher education. Some of them, graduated in Arts and
Biological Sciences, with the prospect of teaching for different levels of education, and even those who have gone through specific graduate to teaching in higher education, had no training for inclusive education.

Most teachers do not consider the institution researched affordable, especially when related to attitudinal barriers and access to information. It is seen also as more related difficulties for teachers are teaching strategies for students with SEN. These difficulties will also decreasing in the course of the relationship student with SEN and teacher. Most of the participants who had this experience reported the need for extra resources for teaching students with SEN and changes in the form of lecturing more related to the evaluation process.

These data corroborate the findings of other studies in which the inclusive measures by teachers and peers in the classroom are the main adjustments conducive to learning from the perspective of students with SEN\textsuperscript{11}. The prejudice of the students and the lack of information and preparation of people and places to receive someone with SEN, are among the main obstacles to practice inclusive education\textsuperscript{12}. Momberger\textsuperscript{12} cites as basic axes for the inclusion of students the availability of material resources, building institutional policies of inclusion, inclusion proposal impression on educational projects and the establishment of flexible curriculum proposals and evaluation processes.

When assessing the perception of teachers from a Portuguese university on the inclusion of students with SEN, one research\textsuperscript{9} found results similar to the present study regarding the value of teaching experience with students who have disabilities as a facilitator in the inclusion process, for generating the teacher more security and availability to do the inclusive process. These teachers also related the practice of including in the legal and social right to equal opportunities in access to higher education. Most of them believe that teaching these students must be distinguished and that the success of this process goes along the construction of the pedagogical relationship between teacher and student. Other important factors are knowledge of SEN, quality and self-efficacy of teachers. The type of disability that teachers feel safer is related to their previous experience.

The fight against attitudinal barriers for people with disabilities or learning disorders and the inclusive posture of the teacher in the classroom, considering the diversity in learning, involve the appreciation of the best student-teacher relationship with establishing a relationship, and the student experience as part of equal value in the teaching-learning process\textsuperscript{13}. The teachers participating in this research who consider themselves prepared to deal with students who have SEN place as one of its measures student involvement in the establishment of teaching strategies, and their willingness to seek methodological alternatives that achieve the potential of that student.

When assessing the satisfaction of disabled students in higher education, an investigation\textsuperscript{14} observed a tendency to dissatisfaction to external factors (structural and operational) and a tendency to satisfaction with internal factors such as psycho-affective and their own attitudes towards obstacles, values and beliefs. Internal factors were critical to student success in completing the course, with the need for structural adaptation that enables them to maximize their potential.

Teachers of higher education currently suffers from the distance of the real and ideal discourse regarding their practice. Many times, the knowledge gained cannot be used in place before the productivism present in the current university model\textsuperscript{15}. Similarly, the low pay of the teacher and investment in higher education generate competitiveness and individualism that supersedes aspects inherent to the human condition in teacher’s relationship with students and with their own practice.

The increase of students with SEN in higher education will possibly cause great impact on the institutional approach and the academic community. Many teachers did not have colleagues with SEN in graduation period, but most of them had this contact after some years as teachers. The presence of
these students in the classroom enables rethink the teaching methodologies of higher education. It is still difficult for the teacher to guide their work in a meaningful education for their students and see the process as a mediator and apprentice1:134.

An inclusion institutional policy experience16 presented as action lines: university mapping to students and accessibility conditions for them, community sensitiveness, the pedagogical support in partnership with family/student/teacher and accessibility as a guiding concept of inclusive practices. It also points out that the decentralized and collaborative management contributes both to the optimization of resources and for overcoming attitudinal barriers, becoming a support for inclusion.

CONCLUSION
The need for continuing education for teachers in higher education is evident, since there is a larger movement for access to higher education in recent years and consequently a diversity of students.

Considering the post-graduate courses as a common way to teaching in higher education, there is also the need to rethink the educational formation of this researcher.

Training for inclusive education, with such diversity, to those who are still in undergraduate, as in teaching courses, Arts, is even more imperative, considering the importance of this practice in all educational levels. The results of this study also highlight the importance of experience in contact with the student who has SEN for safety and teacher commitment to teach him.

The study shows some limitations as the loss of the sample by the small number of responses compared to emails sent, and the non-randomization of the sample, leaving the response to the free will of the script contacted teachers. In turn, these results bring contributions to the reflection of inclusion in higher education. The interview script applied was wide and allows discussing teaching strategies for students with SEN as well as teachers’ practices in line with more active methods.

Many research questions should be answered with regard to pedagogical practice in higher education from the perspective of inclusive education, contributing to building a practice able to engage student and teacher, even facing the reality of higher education and training variability of these teachers.

REFERENCES
Inclusive Education

Oliveira SF, Araújo NM


CONTRIBUTIONS

Sabrina Ferreira de Oliveira participated of data collection and analysis, article writing and review. Natália Martinez de Araújo held data collection and article writing.