

Training for Social Responsibility—Control of Workers in Construction Sites [†]

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[†] Presented at the 2nd Innovative and Creative Education and Teaching International Conference (ICETIC2018), Badajoz, Spain, 20–22 June 2018.

Published: 30 October 2018

Abstract: Fifteen advanced architecture students took part in the teaching intervention designed to train them on how to control the employment conditions of construction workers, especially migrant ones. As the highest authority in the construction site, these future construction site directors are the ones who should take social responsibility inherent to their position. A novel Swiss teaching methodology was successfully implemented as it contributes towards the achievement of the learning goals as well as the participants' behavioral changes. The overall mark of the course awarded by the participants was 9.73/10. The impact of this intervention transcended the classroom and prompted the development of training programs in the construction site and the integration of new contents to the curriculum of the construction site directors training course.

Keywords: social responsibility; employment conditions; construction site; migrant workers

1. Introduction

The Effort-reward imbalance (ERI) in migrant and Argentinian construction workers reflects their different psychosocial working conditions (81.6% vs.18.4%; $p < 0.001$). According to the results of our cross-sectional-study, migrant workers were younger than local workers ($p < 0.001$), more likely to work without contract (56.7% vs. 8.2%; $p < 0.001$) and to work more than 44 h a week (99.3% vs. 41.0%; $p < 0.001$) [1]. By comparing the local and migrant construction workers' conditions, this study revealed the latter's precarious employment conditions and the need to improve them. To address this issue, our teaching intervention targeted future construction site directors. The intervention was carried out as a complementary course for advanced students in the College of Architecture, Urbanism and Design (FAUD) of the National University of Mar del Plata (UNMdP), Argentina. The participants learned how to check legal documents regarding employment conditions of different subcontractors and how to control the entry and permanence of workers in the construction site. The main goal was to encourage the reflection and redefinition of the links between the students' acquired knowledge and their future professional practice. In their role as construction site directors their task ahead will involve the control of the employment conditions by demonstrating their authority to those subcontractors who do not comply with the existing work regulations. Focusing on the behavior of future architects, this intervention aimed at instilling social responsibility in students towards the construction workers.

2. Materials and Methods

In order to ensure the working and employment conditions in the construction site, it was crucial that the participants acquired the knowledge necessary to handle and check legal documents regarding employment conditions.

Thus, the learning objectives of this teaching intervention focused on the legal framework for the professional practice. The first objective was that the participants could identify three laws concerning the employment and working conditions legal framework of the construction site and describe each of them. Then, they had to list two legal requirements that can be used to prove that both migrant and local workers are legally registered and at least three of the social benefits that the legally registered worker is entitled to. Finally, they had to commit to the compliance of the steps towards ensuring the legal entry and permanence of migrant and local workers.

Therefore, a three-hour teaching intervention was designed. It was based on the ARIPE methodology [2], a 5-phase Swiss model to structure lessons effectively, which provided a framework to apply various interactive teaching methods. The ARIPE structure involves the following steps: Adjust, Reactive, Inform, Process and Evaluation.

To start, the activity called “The picture I have chosen” prompted all the participants to introduce themselves. They walked around a table and picked one of the displayed pictures. Then, they introduced themselves one by one, talked about their course expectations and explained why they identified with the picture they had chosen. Then, a short quiz containing questions was handed out. This was meant to measure their initial knowledge and later compare it with the results of the same quiz by the end of the teaching intervention.

In the Adjust phase, the activities were aimed at focusing the participants’ attention on the employment and working conditions in the construction site. For 30 min, the participants watched short clips with interviews to Paraguayan migrant workers so they could empathize with the workers’ employment and working conditions. The methods applied were first an interview to show a real life problem and then Knowledge-Pool. The participants were asked to imagine what they would do if they were construction site directors in order to correct or avoid precarious employment and working conditions among migrant construction workers. Their answers were grouped according to four problem areas that were dealt with in the following phase: Professional roles, bids, construction contracts and entry and permanence conditions of migrant and local workers in the construction site.

The following 20 min were allotted to the Reactivate phase in which prior knowledge regarding working relationships, employment conditions, and hiring at construction sites was activated. This allowed the newly acquired knowledge to be anchored to the existing cognitive structure. The method used at this stage was Brainwalking. There were four problems, each of them written on a piece of paper and placed on tables distributed in the four corners of the classroom. These problems were related to the previous Adjust phase. The students were asked to form four groups. Then, each group walked to one of the four corners and came up with ideas to solve the problem set on the table. These ideas were written on post-its and stuck on the corresponding problem page. Each group had a distinctive color. After five minutes, they rotated to the next corner and repeated the procedure until they completed the task presented in the four problem areas. Each group was entitled to add new ideas, move the existing ones up or down to change their hierarchy and add comments to old ideas. The task was completed when all the groups had rotated three times. Finally, all the sheets were posted on the board and conclusions were drawn so as to continue with the next phase. There were four issues and only one objective, i.e., to guarantee dignified employment and working conditions in the construction sites.

At the Inform stage, new knowledge was discussed for 40 min. The first part of the procedure was to explain a poster with the results of the investigation on working conditions of migrant workers in Argentina in 15 min. Then, 25 min were allotted for an oral presentation focusing on the legal framework of a construction site and summarizing the topics relevant to the employment and working conditions in the construction site. In the presentation, a case was introduced to show the steps to be followed in the presence of allegedly illegal or actual illegal workers according to law. The

methods employed were exhibition of the Poster and Presentation of the PowerPoint. During the presentation, the students were handed out the construction work files which contained current legal documents.

In the following phase, named Process, this new knowledge was then processed and applied. This lasted 30 min. The participants worked on several cases and reread them individually. Using the Hands-on training method, they worked with the legal documentation of real construction sites so that they were able to recognize the basic documents that must be controlled on-site. A case was presented to indicate the steps to be followed in the presence of allegedly illegal or actual illegal workers according to law. The students were given a checklist to carry out the control of the documentation of the real cases. All the files used were of public domain so they did not require prior authorization by neither the professionals nor the companies involved.

The purpose of the last phase of the ARIPE-methodology, Evaluation, was to be able to measure what the students had learned on employment and working conditions in the construction site. In the 25 min allotted for this stage, the participants answered a set of questions linked with the learning objectives. The method adopted was the Wall of Questions: At this stage the participants approached the wall and removed a paper brick. Behind each brick there was either a question to answer or a prize if they picked a "lucky brick".

The closure of the teaching intervention was with a Final Test that was a multiple choice quiz. The students were handed out again the same initial quiz in order to measure the learning success of this intervention. After completing this quiz, they received the assessment sheet in order to evaluate the course.

3. Results

All 15 participants fully completed and handed in their assessment sheet. The group consisted of 6 male and 9 female students. Their average age was 26 (range: 23 to 28). Within the general assessment of the course, the participants evaluated 11 items ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). The statement "I'm satisfied with the duration of the course" received the lowest agreement (mean value 4.53). All in all, the participants were satisfied with the course (mean 4.83). The participants' overall mark of the course was 9.73/10, which is a very good result. The analysis of the gained competence showed the following aspects: All the 15 participants answered correctly to the questions regarding the achievement of the learning objectives, the question on behavioral intention and the knowledge question.

When asked what they liked most about the course the participants mentioned: The way of explaining things and the dynamic nature of the course, the topics, the fluency of the talk, the use of real situations with real documents, the involvement and dynamics that fostered learning, the course pedagogy, the simplicity to explain and approach the subject, the interactive and dynamic features, the teamwork, the understanding and learning of basic occupational safety and health issues. Although many documents were analyzed in the intervention, they still wanted to have more practice on that. This request was addressed by offering an additional hands-on training in a construction site.

4. Teaching Intervention Impact

In order to respond the students' request and assess their behavioral change within a real-life-scenario, a hands-on training in the construction site was added as an extra activity after the teaching intervention. Here, the students had to control the identification cards of real workers at a construction site in XX and discover any possibly informal workers. Thus, they carried out a check on all the construction workers and particularly on the subcontractors who hire migrants. The workers who could not submit their ID were separated and had to interrupt their work, even if they were on the official list of employees with contract, until their situation was clarified. The reason for this check is to remedy the situation in which workers lie about their true identities and report the identity of a worker who is on the official list.

A follow-up two-month summer course called "Juntos a la Par" (Side by Side) was opened to those graduate students who had taken part in the teaching intervention and were willing to gain

some experience in the construction site. The motto was “no worker in precarious employment conditions” and the main aim was that they learned how to control and avoid any kind of informal practice carried out by the subcontractors. All nine students who took part in the course have already been hired and got their first job as construction site assistants, which reflects the far-reaching impact of the teaching intervention.

This intervention, which was designed and developed following the ARIPE technique, was based on a research study that detected a demand for better employment conditions. Trying to meet this demand, the intervention has had a positive impact on young future architecture professionals as it boosted the training for their key role in improving the working conditions in the construction site.

Author Contributions: L.K. and K.R. conceived the intervention; N.M.S. and M.F.B. designed the intervention; N.M.S. performed the intervention; N.M.S., L.K., K.R. and M.F.B. analyzed the data and wrote the paper.

Funding: The funding sponsors had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

Acknowledgments: Ludwig-Maximilians-Universität München, the Excellence for Development Cooperation (Exceed) Program by the German Academic Exchange Service (DAAD) and the German Federal Ministry for Economic Cooperation and Development (BMZ). They all supported Néstor Machado Susseret’s training developed within the Master in International Occupational Safety and Health of the Center for International Health in Munich, Germany.

Conflicts of Interest: The authors declare no conflict of interest.

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