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# Sensitizing the medical undergraduates to qualitative research: In the context of experiential learning debriefings

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## Abstract:

**BACKGROUND:** The role of medical undergraduates is limited while interacting with the community related to issues involving human behavior. Since qualitative research seeks to build a holistic understanding of social phenomena, we designed this project to expose them to the basics of qualitative research in a real-world setting of experiential learning. The aim of this study is to sensitize the medical undergraduates to the basics of qualitative research and able to apply it in the context of experiential learning in the community.

**MATERIALS AND METHODS:** In this current educational intervention, a structured teaching program was designed and applied for the first time, to our students to effectively sensitize them to qualitative research in a natural community setting, intended to provide them a solid base for experiential learning. A batch of students ( $n = 50$ ) was selected by convenient sampling method who had their clinical postings with us. At first, a "session planning guide" was drawn on the plan of conduction of this program. We followed the "facilitators reference manual by research consortium on educational outcomes and poverty (RECOUP) for our teaching sessions. The framework of our study was executed in the following sequence: sensitization of the learners, exposure to structured quality experience, systematic debriefing sessions with evaluation of learner experiences, and the process and outcome feedbacks from the learners. The students were monitored by trained facilitators. The various study tools used in the structured teaching program included, the teaching sessions using the RECOUP manual, didactic lectures and short group interactive sessions to teach qualitative research and photographs and video clips to facilitate the sessions, mock demonstrations and role plays on interviewing techniques, use of case vignettes on the theme "perception of psychosis" for interviewing the community, structured debriefing guide, and various self-reflective exercises. Learners' perspective of community perception, debriefing sessions, and self-reflective responses were transcribed, and manual content analysis was done to identify the codes and interpret the results.

**RESULTS:** Majority could appreciate the uniqueness of qualitative research over the quantitative counterpart. They could enumerate the attributes of a good qualitative researcher. The debriefing exercises made them summarize their experiences and the self-reflective exercises enabled them to identify their abilities and critique their ideas. It was a different experience to our learners as they could identify themselves with the sentiments of the community. To them, the facilitating points were the interviewing skills and confidence gained in facing the community. However, they felt time constraint for exploring the sensitive issues during the fixed posting schedule.

**CONCLUSIONS:** The experience of learning beyond the boundaries of a classroom setting sensitized them to various community perceptions and reactions. The students perceived the qualitative methods well and could apply the lessons learnt in the facility. They also felt that this learning exposure gave them community orientation and confidence in dealing with community issues.

## Keywords:

Experiential learning, qualitative research, teaching program

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## Introduction

Undergraduate research (National Council of Undergraduate Research) is an inquiry or investigation conducted by the students that makes an original intellectual or creative contribution to the discipline.<sup>[1]</sup> These research experiences have a positive impact on student retention.<sup>[2,3]</sup> However, taking up a suitable research design is always challenging. The undergraduates often ask sophisticated questions without having the language or methodological knowledge to really explore the questions most important to them. They tend to be ill equipped in their community interactions pertaining to important social and behavioral issues,<sup>[4]</sup> an important competency expected from a medical graduate.<sup>[5]</sup> Exposing them to qualitative research would help in this regard in developing “emic” perspectives and seeks to build a holistic, and narrative description about the researcher’s understanding of a social phenomenon.<sup>[6]</sup> This would equip them with constructivist world views and would help them connect with the world around and orient them with the community.<sup>[7]</sup>

In pedagogic research methodology, experiential learning is a fundamentally different approach to learning which is in contrast to the behavioral theories of learning based on empirical epistemology.<sup>[8]</sup> It is a holistic, integrative perspective on learning that combines experience, cognition, perception, and behavior to help in long-term retention of knowledge.<sup>[9]</sup> Traditional classroom-based learning may not always create deep impressions in students because of its didactic, passive, and standardized nature, yet the active and practical experiential learning tends to facilitate deep understanding. The shift in learning from behaviorism and passive learning to cognitive, social, constructivist, and active learning reinforces the idea of meaningful learning. Further, “debriefing” exercises are really valuable after powerful experiences because experience helps learners connect lessons and activities, they learned in classrooms to the outside world.<sup>[10]</sup> The learners’ rich experience might be lost if not debriefed and learning may not be long term if not allowed to reflect on experiences. With this background, we designed this project to sensitize our students to the basics of qualitative research based on the theme, “perception of psychosis.” We chose this theme because psychosis is usually associated with social ostracism and is greatly influenced by traditions and social beliefs. It would also serve as a powerful experience for the experiential learning and qualitative method would help exploring this in the community. Hence, the study was planned to (1) sensitize the medical undergraduates to the basics of qualitative research and (2) making them able to apply this lesson in the context of experiential learning in the community.

## Materials and Methods

### Study design and setting

An educational intervention using a structured teaching design for the medical undergraduates in the context of experiential learning was undertaken in the department of community medicine of a medical college and research institute under the Government of Puducherry. At present, we are planning innovations in teaching methodology to orient our undergraduates to different modalities of research. In our institute, the undergraduates have two clinical postings as per the Medical Council of India norms. There is exposure to epidemiological concepts and research methods in community- and facility-based settings in the two postings. However, we felt that, while interacting with the community related to issues that required more elaboration or sensitive issues or those involving human behavior, our students’ role was limited owing to the limitation of quantitative methods. We encountered that in many instances the undergraduates stressed on completing data collection without much reasoning; either because they failed to elicit the meaning behind the facts or undermined its importance. Hence, we thought of sensitizing them to a kind of research to understand complex human phenomena, a kind of emic orientation to understand why a particular event happened in community, a more holistic and naturalistic qualitative approach.

### Study participants and sampling

We applied the structured teaching design for the first time on our students of VI semester (one batch,  $n = 50$ ) for a month who were already exposed to quantitative methods in their previous posting. The batch of students was selected based on the convenient sampling technique.

### Data collection tools and technique

What was planned to fulfill our teaching objective? [Figure 1] Initially, a “session planning guide” (Stage I) was laid stressing on (i) specific learning objectives, (ii) simplified and structured learning activities for our learners, (iii) identification of factors affecting and facilitating their learning, (iv) the ground in which it can be applied, and (v) various ways to monitor such activities in different study settings. We intended to expose our learners to a preliminary sensitization exercise after which they were subjected to a powerful experience in a favorable “real-world” setting. The training elements stressed on different qualitative methods with examples, interviewing techniques, important lessons learned from the field, facing the community and being prepared for the unexpected situations in research settings, etc. The “experience” planned was structured, in a community setting, which allowed our learners’ autonomy with careful monitoring by the faculty.

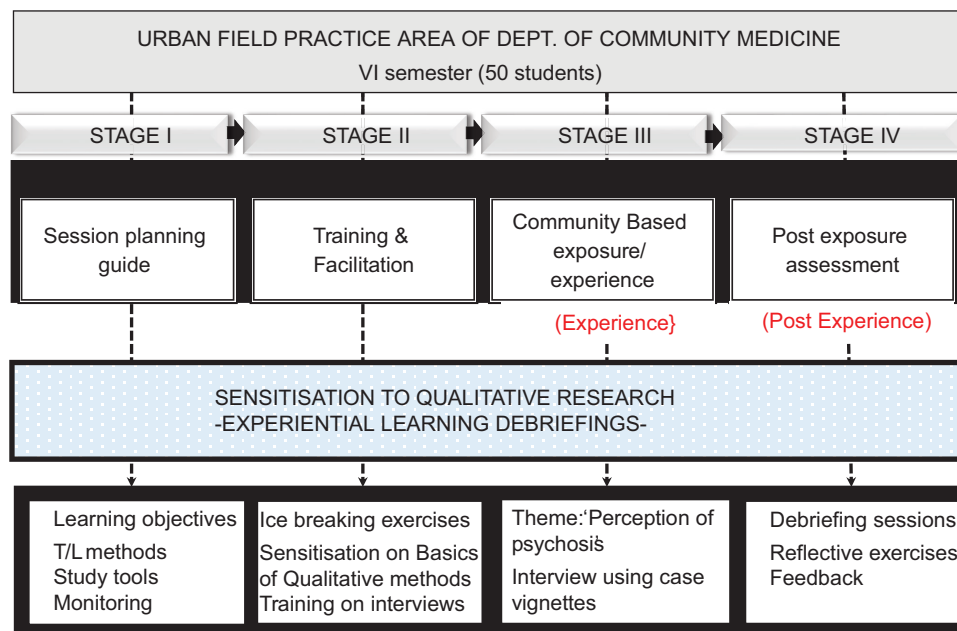


Figure 1: Step wise plan of the structured teaching program

How was the learning program executed? (Stage II). The framework of our study was planned to be executed in the following sequence: (1) Sensitization of the learners in the classroom, (2) exposure to structured quality experience in the real-world settings, (3) systematic debriefing sessions with the evaluation of learner experiences postexposure, and (4) process and outcome feedbacks from the learners on their learning.

### Training of undergraduates on qualitative methods

The students were trained both at the classroom and at the community settings. At the facility, the students were given a basic introduction to the various methods of qualitative research with examples and the utility of such methods in contrast to quantitative methods. We followed the facilitator’s reference manual by research consortium on educational outcomes and poverty<sup>[11]</sup> to make the teaching sessions interesting with ice breaking and brainstorming exercises. “Didactic lectures” and “short group interactive sessions” were used as teaching methods with the use of “photographs” and “video clips” to facilitate learning. The students were sensitized on different methods of qualitative research, stressing on power of observation over mere seeing a phenomenon, usage of vignettes in qualitative research, etc. We explained in brief about different types of questionnaires and interview techniques and had “mock demonstrations” and “role plays” for their learning.

### Facilitation of the structured qualitative exercise

At the community, we exposed the students to a structured experience in the form of exploring the community opinions on the theme “perception of

psychosis.” We opted for the use of “case vignettes” for our undergraduates in our methodological tool kit for ease of conduction of “in-depth interviews” by them. Vignettes are described as short scenarios about individuals and situations which can make reference to important points in the study of perceptions, beliefs, and attitudes. Herein, participants are asked to respond to a situation by stating what they would do, or how they imagined a third person, usually a character in the story, would react. Vignettes have the potential to explore meanings and interpretations not easily accessible by other methods. The case vignette that was used for our project had elements pertaining to the manifestation of psychosis (schizophrenia) and the cultural practices and beliefs pertaining to it. A structured questionnaire with few open-ended responses pertaining to the perception of psychosis (knowledge, attitude, and practice) was administered by each group for the data collection.

### Phase of experience (stage III)

At the field, a map of the study area was drawn. Students were allotted in the area and were divided into pairs of two and it was planned to conduct only two interviews per pair (one each) per day to allow sufficient time for conduction of interview. Each interviewer (student) was assisted by the respective partner in taking the field notes and observing the interview process. One available person (able to understand) in each house was interviewed after obtaining verbal informed consent and proper rapport building. In the beginning, the vignette was read out in the local language in a neutral attitude followed by the administration of the questionnaire. They were monitored by the trained faculty and paramedical workers.

### Phase of postexperience (at the facility) (stage IV)

To understand the transformation of experience among our learners, “debriefing” exercises were planned through “interactive sessions” conducted at the end of each day of data collection and at the end of the project.

### Debriefing guide

The sessions included collaborative group discussions, games, feedback sessions, etc. Students were allowed “walk and talk” activities for some time to discuss and analyze their learning experience among the peer groups to facilitate sharing of ideas. The faculty facilitator read out the debriefing objectives to the students and fostered active discussions by encouraging reflection of their learning experience. The students were asked to discuss on their personal feelings, perceptions, and thought process after the experience [Table 1]. Their critical inputs were compiled and interpreted. Interesting student observations were shared with the group. They were trained on making a transcript of field notes and manual content analysis under supervision by the faculty. Learning feedbacks were taken from them on the facilitating and hindering points.

### Analysis

Manual content analysis of the student’s systematic debriefing sessions and self-reflective exercises was done to understand the learner’s perspective of community, attributes of good qualitative researcher, and to identify the facilitating and hindering factors.

## Results

### Section I: Perceptions of the community: Learners’ perspective

The students felt that the community had a mixed response in response to the theme. Some community members were so upset that they did not even welcome them for the interview. As shared by a student, “The house owner banged the door on our face yelling at us. Their neighbor called us and told that the same family had a suicide few months back because of psychotic depression.” However, in other instances, people called

them inside their houses and listened to them. When they heard the narrations in the vignette, they appeared to have familiarization with the scenario and shared their views on Similar instances in their lives. Some community members even spoke to them in a very low voice for the fear of being heard by other members of the family. Some even revealed that members of their own families were even possessed by some evil spirit and had been taken to faith healers on many occasions. The summary of their observations is mentioned as the following.

#### *Response to psychosis is greatly influenced by their sociocultural factors*

The perception of causes of psychotic illness pertained to supernatural powers; punishment by god, play of evil spirits, and unsatisfied ghosts, role of black magic such as stepping on lemons and going to places with ghost. However, people also attributed these to hormonal imbalance, neuronal problems and brain damage, and personal and emotional stress.

#### *Psychosis creates stigma in society*

The societal attitude toward this problem was positive or negative or neutral. They gathered that people suffering from such illness are even subjected to violence or abuse. They said that usually the elders in the family advised to hide the family secret for fear of the society. Some community members suggested that such victims should be treated with sympathy, education, support, love, care, and treatment modalities than treating them with negligence, criticism, isolation, and abuse. To them, negative community attitude led to emotional instability and suicides.

#### *Perception about the concealment of identity by psychotic individuals*

Reasons for concealing one’s own identity are stigma and isolation. Some are not able to conceal as they are unaware of their acts or because of lack of family support and disclosure of their treatment status. As shared by one of the students, “An old lady once opened her window and called us for help when we were crossing that side. She said that her son and daughter-in-law had locked her inside because they felt that she had psychosis.”

**Table 1: Debriefing Guide for the Assessment of “Concrete Experience”**

Main guide	Probes
What did they feel about the experience? (Personal feelings)	Sharing pleasant/unpleasant field experiences, their connect with the community sentiment
What is their opinion regarding conducting interviews?	Issues for taking interviewee consent, guiding and controlling interviews, understanding the subjects’ comfort/discomfort in facing interview, how did they open up
What assumptions did they make about the community?	Observation of community members and their rich cultural practices, basis of formation of community opinions and attitudes
What abilities they identified in themselves as good researchers?	Quoting instances from personal experience
What modifications would they like to make in the current learning exercise?	Training of the students, facilitation by the instructor, timings, any other suggestions



### *Societal perception about the treatment of psychotic illness*

The community followed both medical and nonmedical modalities of treatment. They said about allopathy, electric shock, specialists such as psychiatrists, or other alternative medicines. Nonmedical modalities included emotional support, motivation, and confidence, and to not criticize or isolate the victim. Some believed faith healers who performed auspicious Pooja or sacrificed animals to evil spirits, sometimes even chained and tortured the victim, etc.

### Section II: Attributes of a “good qualitative researcher”

The students wrote their interpretations on attributes of a good qualitative researcher [Table 2]. The abilities that they mentioned ranged from dressing style and appearance to being a good human being. As shared by one of the students, “our respondent spoke to us and narrated her painful story of being abandoned by her family. She was narrating her story and we could not leave her.”

To them, community showed trust in them and found them dependable and responsible and could open up and share their own feelings. In some instances, they even shared supernatural events that they came across and information about the popular faith healers. They respected their sentiments and their cultural values and empathized with them. The students could sense the community discomfort in response to a particular statement and avoided probing much on that.

The learners felt that they needed to be empathetic and trustworthy. They needed to gain community confidence by their attire and attitude. They also needed to be patient listeners and adaptable to the situation and also should have a good background knowledge of the community

that they are interacting with. Our learners could depict their perception of an ideal qualitative researcher pictorially [Figure 2].

### Section III: Facilitation of learners’ self-reflective exercises

The student engagement in this elaborative learning process helped them to identify their commonalities and differences in observation, promoted their depth of understanding of community issues, and knowing their own self. Further, this emancipatory method enabled them to question others’ views and allowed them to control and take responsibility for their learning environment and could suggest possible ways to improve it. The learners made sense of their own experience. The summary of the self-reflective opinions is mentioned in Table 3.

Feedbacks were gathered for the students regarding their opinion on various facilitating and hindering factors for their learning [Table 4]. The subcomponents of assessment by the students were the relevance of the methodology and the specific abilities that the learners could develop in them during the entire exercises of “experience-debriefing-reflection cycle” and also the logistics issues during the process. They gained confidence in facing the community, particularly community sentiments, and emotions. However, encounter with unexpected community reaction at times made them uncomfortable. Few others felt that more time was required to explore community perceptions.

## Discussion

The power of experiential learning makes the learner conceptualize the experience, apply and act, and

**Table 2: Abilities of a “Good Qualitative Researcher” as perceived by the learners**

Abilities/attributes	Categories	Why they feel so?
Appearance	Smiling, gentle, patient	Good body language gives positive impression to community Helps in interviewing
Dressing style	Well groomed	Gains community respect
Good human being	Big heart	Able to empathise with others
	Big eyes	Able to observe
	Big ears	Listen more than talking
	Oriented to community	What community wants is first
	Adaptable	Adapts according to community
Leadership	Appear trustworthy	Makes them “open up”
	Good community support	Better response from community
	Harmony among co-workers	Facilitation of field work
Well equipped	Should have watch	Should be time bound
	Carrying bag with gadgets	Book/laptop/tab for reference
	Having Internet facility	Should be updated
	Carry records	Verifying facts
Research abilities	Good knowledge of the community	Knows what is the felt need
	Interested in gaining knowledge	Should do continuing learning
	Good imaginative skill	Can reflect on what happened



Figure 2: Qualitative exercises (among the learners) depicting "attributes of a good qualitative researcher"

**Table 3: The self-reflective exercise-learners opinion on their own learning**

Categories	Context
Self-appraisal/ reflection	Ability to face the community Ability to conduct the interview Ability to judge the fellow participant's interviewing skills Ability to recognize the importance of nonverbal cues Ability to handle unexpected situations during interactions Interactions triggering their own emotions Their abilities as qualitative researcher
Analysis of learning process	Transition from classroom to community Learning qualitative research techniques Exposure to real-life situations Monitoring by facilitators Group debriefings Interactive sessions Timing of the interview process Things that went wrong during co-ordination Allowing group discussion among peer groups
Meeting learning goals	Learning to respect culture Learning community behavior/response to situations Learning societal perspective/stigma Developing empathy Favorable/unfavorable community interactions
Suggestions to improve learning process	Requirement of more training and competence in the learners Allowing sufficient time for conducting interviews

ultimately "reflect on" the action to make the learning retained for long.<sup>[8]</sup> In our study, we tried to make the exposure to the experience (contact with the real world) a structured one, so that learning took place

appropriately. According to Hoover,<sup>[12]</sup> experiential learning exists when a personally responsible participant processes knowledge, skills, and/or attitude cognitively, affectively, and behaviorally in a learning situation characterized by the high level of active involvement.<sup>[9]</sup>

Experiential learning is said to serve as a powerful form of teaching when administered rigorously because participants acquire new knowledge by internalizing theory through guided practice. However, the processing stage called "debriefing" is crucial because these integrate experience with concepts and applications that are transferrable to settings outside the classroom.<sup>[10,13]</sup> Mentoring the undergraduate learners in our study for sensitization to the experience and analysis of transformation of their own experience (making them interactive and participative in an environment of autonomy) by debriefing sessions required careful planning and monitoring. In transformative learning practices,<sup>[14,15]</sup> the adult learners construe, validate, and reformulate the meaning of their own experience to see things differently and act differently in their world [Figure 3]. In this learning exercise, the role of facilitator or instructor is considered equally important in creating learning environment open, free, and emancipatory to encourage reflection among learners.<sup>[16]</sup> The self-reflective abilities of our learners were very encouraging [Table 3]. It is stated that reflection on one's own learning challenges the learner assumptions as they try to make sense of their own experiences.<sup>[17]</sup> Instead of making them passive receivers of expert knowledge, it makes them active creators of their own knowledge. Our learners could provide a critique of their own learning process and the abilities that they needed to develop. Further, we infer that our learning inventory is similar to

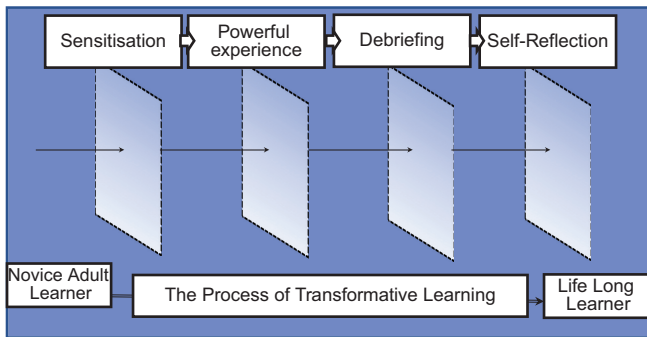


Figure 3: Transformative learning: Experience - debriefing - reflection process

Table 4: Feedback from the learners

Feedbacks	Responses
Facilitating factors	The exercise was interesting to them Vignettes were innovative for perception of psychosis Developed new interviewing skills and probing techniques Dealing with human feelings and emotions Gained confidence in facing community
Hindering factors	More time was required for exploration of perception Encountered with unexpected reactions from the community

Kolb’s learning theory<sup>[18]</sup> which proposes that the learners’ learning starts with their active involvement with the experience and continues through “reflective observation” and “abstract conceptualization” where conclusions are drawn in a cognitive process to its application in an “active experimentation.”

As per the curricular prescriptions, specific competencies need to be developed in the Indian Medical Graduates<sup>[5]</sup> to make them serve the community better. We believe that pragmatic learning of qualitative research through such exposure made them sense the community perceptions and expectations [Table 3]. Our attempt to sensitize them to a constructivist world view and develop the “emic” perspective in them is intended to make them more empathetic and sensitive human beings [Figure 4]. Our learners learned to apply the concepts they learned in the classroom to the community and learned to accommodate and internalize the new experience. They could understand the community ideologies, values, attitudes, and their acceptance or rejection to relevant societal issues, and the interplay of cultural factors. According to Dewey<sup>[19]</sup> the experience, inquiry, and reflection are the key elements in experiential learning and also emphasized by Jean Piaget<sup>[20]</sup> that learning is a lifelong process of discovering knowledge, assimilation, and accommodation of learning from experience and knowledge.

### Limitation and recommendation

The current teaching intervention was intended to provide our learners with some experience of the real

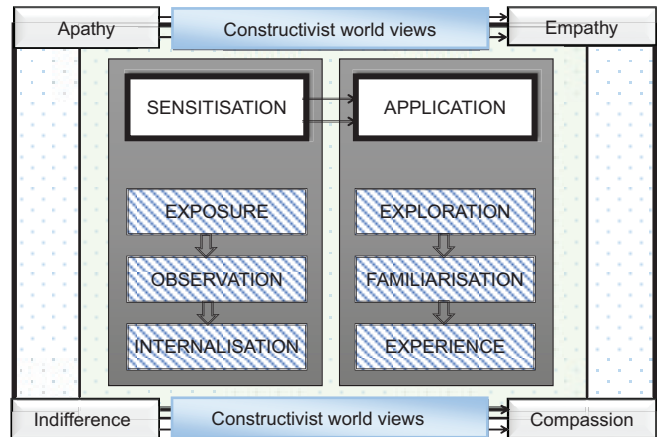


Figure 4: Process of behavioral change desired in a medical undergraduate

world in the context of teaching them qualitative research. However, the routine curricular prescribed hours were insufficient for this attempt of understanding human behavior and more exposures were needed. Definitely, some learning must have taken place but we could not provide a structured evaluation guide to assess the same in the current study. This study significantly contributed to medical education by empirically testing the value of experiential learning programs in real-life setting as a significant driver of learner’s competency and outcomes. As learning by doing has the highest level of impact on cognitive and skill domain, we strongly recommend this for the medical undergraduates especially, in the current context of the competency-based curriculum, as specific competencies need to be developed in the Indian Medical Graduates to make them serve the community better.

### Conclusions

Our study intended to provide a concrete experience to our learners and the conduction of debriefing exercises helped in the processing and transformation of the experience by generating deeper insights. Self-reflection of learners on attributes of good qualitative researcher and awareness of societal perception indicated their depth of their understanding of qualitative research. We hope this attempt would help develop a novice learner to a lifelong learner as it would help in long-term retention of knowledge.

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### Conflicts of interest

There are no conflicts of interest.

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