American Society of
Radiologic Technologists

CLINICAL EDUCATOR SURVEY SUMMARY

2009

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Clinical Educator Survey Summary

In early October 2009, an invitation to complete an online questionnaire concerning the role of clinical educators was sent via e-mail to each of the 1,004 radiography, radiation therapy and nuclear medicine technology program directors listed by the American Registry of Radiologic Technologists (ARRT). Program directors then were asked to forward this invitation to both their program's clinical educators and students. As of October 31, 2009, 732 responses had been received by 200 students, 234 clinical educators and 298 program directors.

As a clarifying note we used the term clinical educator in a general sense to identify individuals in the direct patient care environment who are responsible for planning, monitoring and/or facilitating student learning activities. Other terms for technologists operating in this capacity may be clinical instructor, clinical education coordinator or clinical faculty.

A summary of the critical results is provided below.
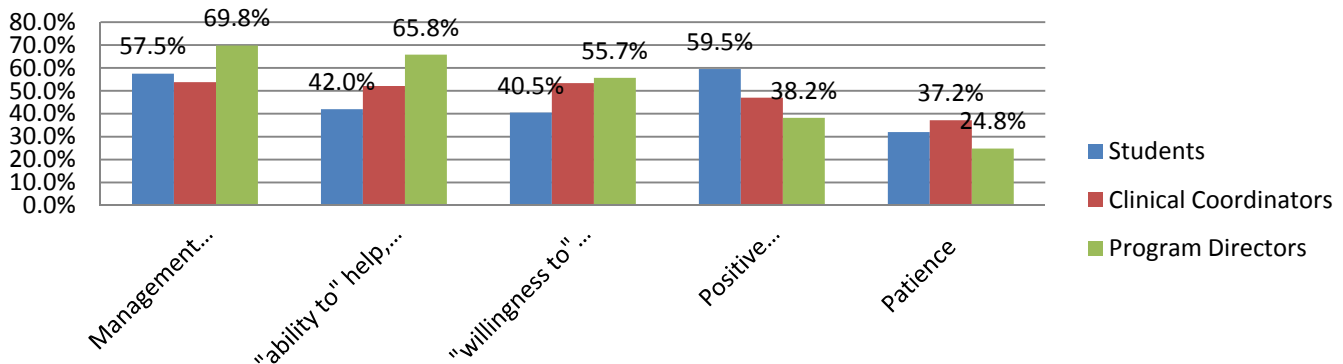
Clinical Educator Characteristics
When asked to think about clinical educator characteristics or traits that are essential to creating a productive learning environment, all three groups (students, educators and program directors) expressed that clinical educators have the "*ability to* help, guide and instruct" as well as the "*willingness to* help, guide and instruct." In addition, all three groups most often mentioned management skills. Many respondents within these three groups stated that communication skills, organization and professionalism are the characteristics most essential to building a productive learning environment.

Although many similarities exist across the three groups, students differ slightly in their frequency of discussing the need for a clinical educator to have a positive attitude and be open to questions. Approximately 60% of students believe that this clinical educator trait is the driving force behind a productive learning environment.

Thinking of the clinical educator (s) in your program, what three characteristics or traits do you feel are essential to creating a productive learning environment? CODED [a]			
	Students	Clinical Coordinators	Program Directors
Management skills (communication, organization, professionalism)	57.5%	53.8%	69.8%
"Ability to" help, guide, instruct, teach	42.0%	52.1%	65.8%
"Willingness to" teach, guide, help, answer questions	40.5%	53.4%	55.7%
Positive attitude/openness	59.5%	47.0%	38.2%
Patience	32.0%	37.2%	24.8%

[a] Multiple responses allowed

Clinical educator characteristics that are essential to creating a productive learning environment

In addition to being asked about characteristics that are needed for a productive learning environment, respondents were asked to rate how they value specific clinical educator characteristics on a scale of 0 to 4, with 0 indicating "no value" and 4 indicating "extremely valuable."

Across all three groups "having adequate professional knowledge to respond to student inquiries" was ranked extremely high with the highest mean score of all the traits for students and program directors. The mean score was 3.90 among student respondents, 3.79 among program directors and 3.75 in the clinical educator group. Additionally, the characteristic of "being patient with students during the learning process" was consistently among the top three valued characteristics across all respondent groups.

How would you rate the following clinical educators characteristics in terms of value to you?			
	Student Means Scale (0 to 4)	Clinical Educator Means Scale (0 to 4)	Program Director Means Scale (0 to 4)
Having adequate professional knowledge to respond to student inquiries.	3.90 (SD=0.33)	3.75 (SD=0.50)	3.79 (SD=0.47)
Being patient with students during the learning process.	3.79 (SD=0.50)	3.78 (SD=0.52)	3.78 (SD=0.49)
Having the ability to connect concepts taught in the classroom to everyday use in the field.	3.77 (SD=0.50)	3.60 (SD=0.64)	3.74 (SD=0.51)
Demonstrating active listening skills when engaged in conversations.	3.71 (SD=0.56)	3.70 (SD=0.51)	3.70 (SD=0.53)
Having realistic expectations of a student.	3.70 (SD=0.57)	3.49 (SD=0.64)	3.66 (SD=0.56)
Using the results of evaluations to alter and enhance future learning experiences.	3.58 (SD=0.68)	3.32 (SD=0.70)	3.64 (SD=0.56)
Having the innate desire to stay-up-to-date on techniques used in the field.	3.58 (SD=0.63)	3.47 (SD=0.69)	3.47 (SD=0.69)
Being able to extrinsically motivate students while in the field.	3.60 (SD=0.60)	3.41 (SD=0.73)	3.41 (SD=0.73)
Having empathy for students in the learning environment.	3.42 (SD=0.75)	3.29 (SD=0.81)	3.33 (SD=0.74)

# Clinical educator characteristics in terms of value
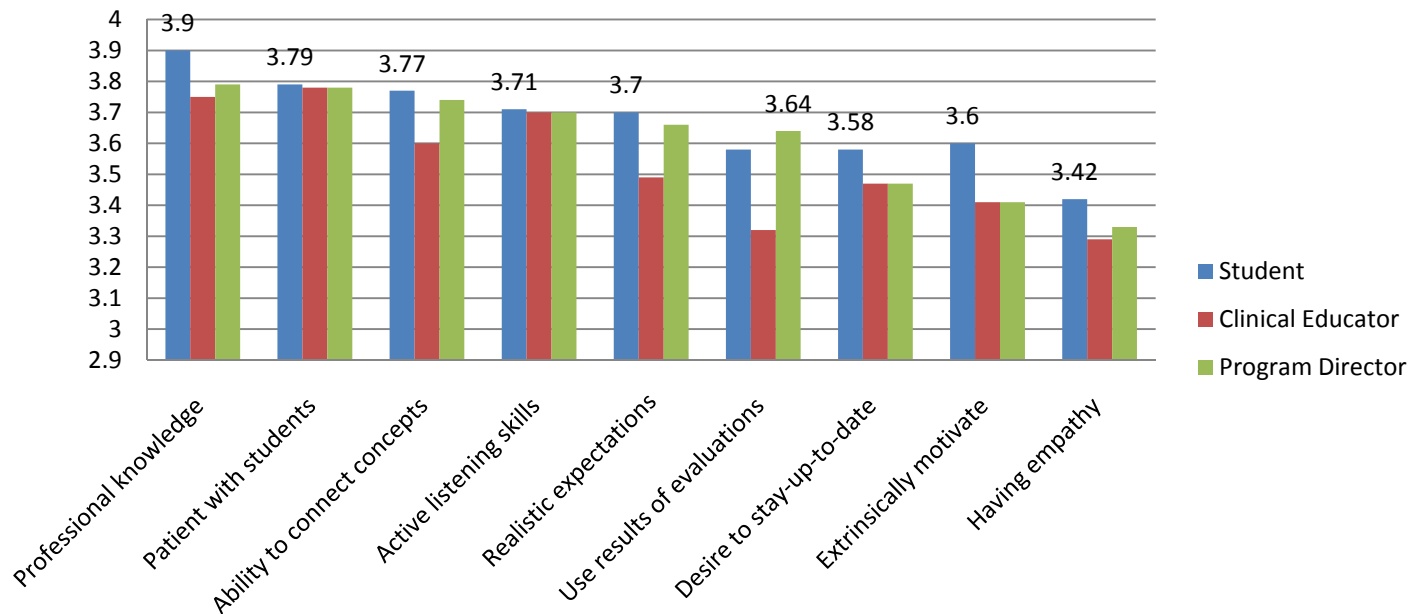
Effective Teaching Strategies

Students, clinical educators and program directors were asked to identify specific teaching techniques that are most effective for the clinical setting. The top two techniques consistent across all three groups was "providing immediate feedback" and "offering encouragement." Clinical educators and program directors specifically highlighted the teaching technique of "checking for understanding by asking questions," whereas students believed that "modeling procedures" was more beneficial.

What teaching techniques are most effective in a clinical setting?[a]			
	Students	Clinical Educators	Program Directors
Providing immediate feedback	79.0%	85.0%	87.9%
Offering encouragement	83.5%	84.1%	85.9%
Checking for understanding by asking questions	73.5%	82.1%	84.2%
Modeling procedures	75.0%	72.2%	80.2%
Establishing goals or objectives for students	65.5%	66.2%	75.8%
Breaking procedures into smaller steps	65.5%	61.1%	66.1%
Having preplanned lessons	39.5%	28.2%	34.9%
Other	9.0%	6.4%	9.4%

[a] Multiple responses allowed

**Effective teaching techniques for the clinical setting**
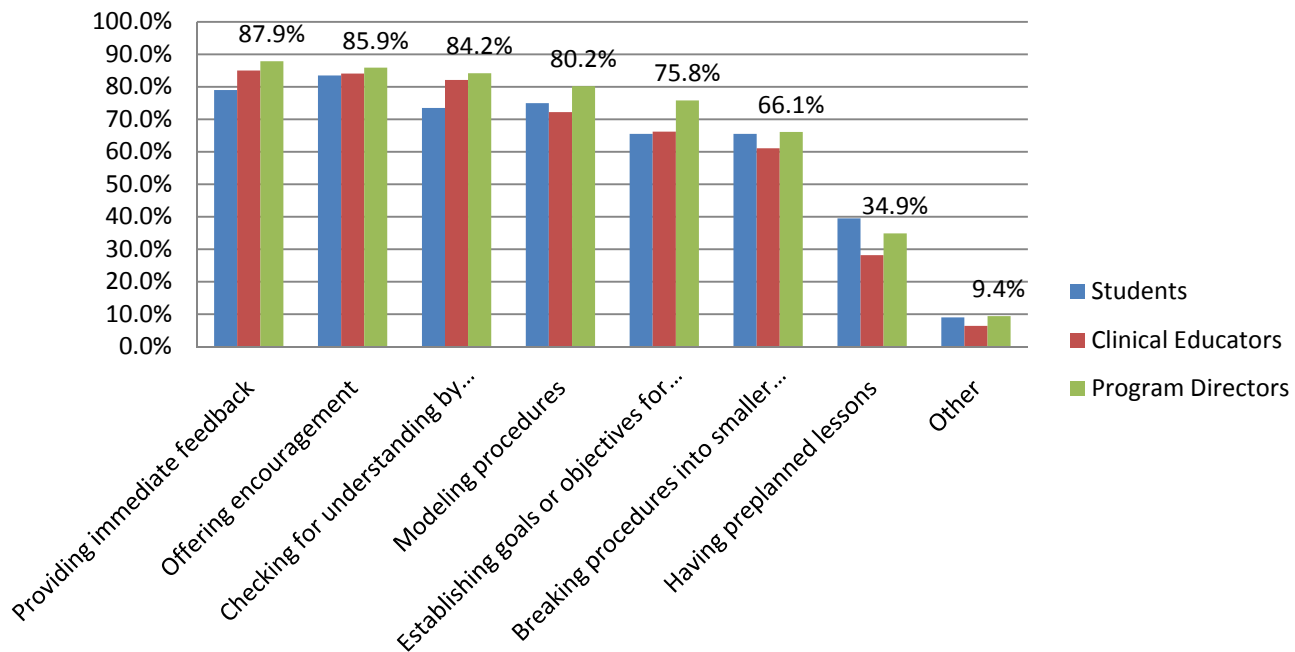
Motivational Techniques

In addition to teaching techniques, respondents were asked to select motivational techniques that they feel are effective for motivating students within the clinical setting. Across all three groups "creating a safe working environment for learning" and "maintaining a positive attitude" were in the top three choices with the highest frequencies.

Although students, clinical educators and program directors agree on the techniques of "creating a safe environment" and "maintaining a positive attitude," differences arise concerning the third technique that is most effective for motivating students. "Welcoming questions from students" rounds out the top three choices with the highest frequencies for students and clinical educators, whereas program directors believe "challenging students to take on more" is a more effective motivation technique.

5. What is the most effective way for clinical coordinators to motivate students in the clinical setting?			
	Students	Clinical Educators	Program Directors
Creating a safe working environment for learning	14.9%	21.5%	26.8%
Maintaining a positive attitude	34.4%	28.9%	21.0%
Challenging students to take on more	12.8%	13.6%	14.0%
Being enthusiastic	11.3%	13.6%	13.4%
Welcoming questions from students	21.5%	15.8%	11.5%

## Most effective way for clinical educators to motivate students
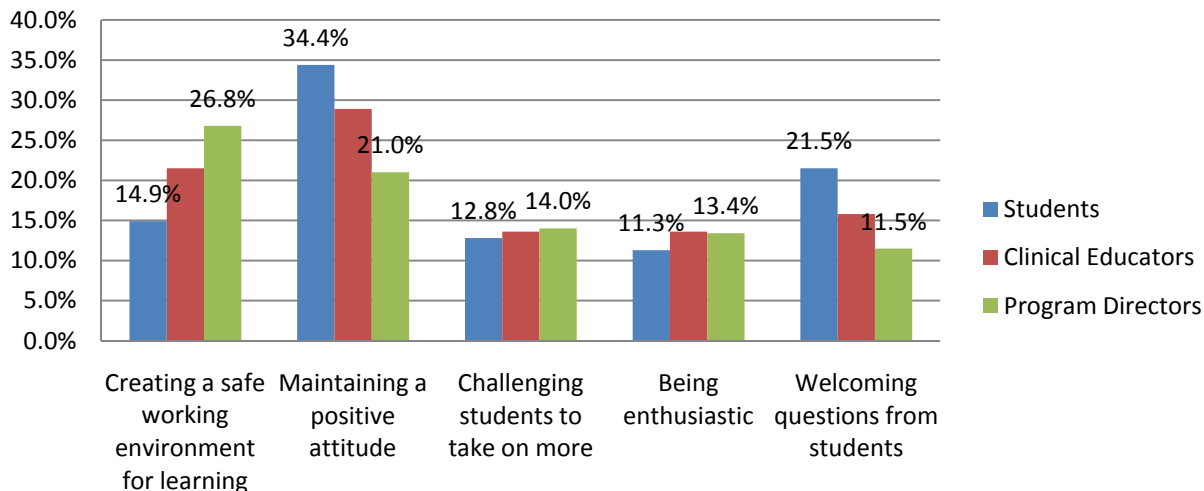
Clinical Coordinators Role

Respondents from all respondent groups were asked to think back to a positive clinical experience and describe the role that the clinical educator played. Across all three groups of respondents, students, clinical educators and program directors most frequently described situations in which the clinical educator played the role of motivator. This was closely followed by educator, facilitator and mentor.

Thinking back to a student's positive clinical experience, what role did the clinical coordinator play?			
	Students	Clinical Educators	Program Directors
Motivator	27.5%	34.6%	27.4%
Educator	22.0%	24.3%	20.5%
Mentor/role model	8.0%	14.6%	20.1%
Facilitator	9.5%	17.8%	15.0%
Mediator	3.0%	3.2%	6.00%
Other	6.0%	5.4%	11.1%

Role of clinical educator in positive clinical experience
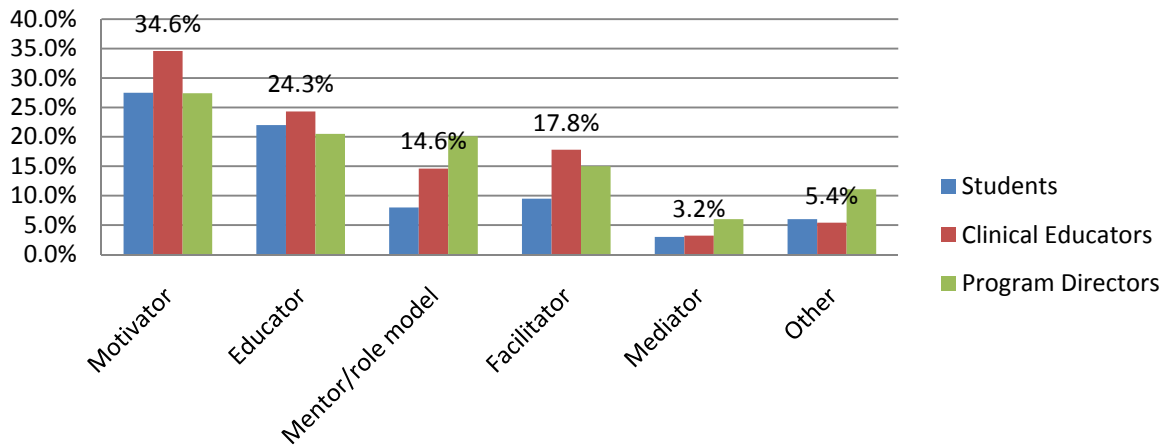
Examples of situations described:

Student

I had a positive experience in the clinical environment when my clinical coordinator actually came to my clinical site and as I was assisting with positioning a patient, she related it to what she had lectured on in class. It was also very encouraging for me to see my clinical instructor there with a smile of encouragement while I was out in the actual real-world clinic!

Clinical Educator

A recent graduate of mine was very quiet and shy, but had a lot of potential. I discovered some of her strengths and showed them how they outweighed her weaknesses. She really excelled in our program after she had positive encouragement. At her graduation, not only did I receive a thank you from her, but also from her parents, thanking me for giving them the opportunity to see their daughter grow into a medical professional and a mature adult.

Program Director

Clinical coordinator's role is to be a mentor and an encourager to meet challenges of the clinical setting. The student must be allowed to learn in teaching moments which come sporadically through the day. The Clinical coordinator can capture those moments to make them valuable experiences through correction, suggestions or cheerleading the student onward. It is a matter of approach and discernment.