The Effects of Using Academic Role-Playing in a Teacher Education Service-Learning Course

Popular abstract: Academic role-playing is one of the more effective active-learning instructional strategies currently being used at the American university level in the preparation of future educators. This mixed methods study is an investigation of the use of role-play in an undergraduate university course designed to prepare students to become public school coaches and physical education teachers. The five original vignettes that were role-played were specifically written to prepare the students to successfully handle situations they might reasonably encounter in their future work. The role-play model used in the research was originally created by the Shaftels in the 1960s, but several creative variations devised by the current investigators were added to that model for this study causing it to be an adapted version. Data collected included questionnaire responses from two different questionnaires, information from a focus group, and observations by the two investigators. Investigators concluded that the students not only exhibited skill in the techniques used to resolve the issues in the vignettes, but that students gained confidence the more they participated in the role-plays which occurred over a 4-week period. The students themselves reported that learning from one's peers, trying out their ideas in a safe environment, being forced to plan an intended outcome in advance, and hearing feedback from others were their most valued experiences. They also overwhelmingly reported preferring role-play to the more traditional university lecture method.

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1. INTRODUCTION

Academic role-playing is one of the more effective and frequently used active learning instructional strategies currently being used at the American university level in the preparation of future educators.¹ If the focus of instruction is the learning of new skill sets, role-playing those skills in a realistic yet safe classroom environment allows students to implement them correctly in a mentored and structured learning setting. It also allows students to gain the confidence to execute them appropriately in the real world. The investigators used several varieties of a classic academic role-playing strategy in a course designed to prepare students to become future coaches and physical education teachers. This particular course was also designed as a service-learning course in which students served as volunteer student teachers in after-school programs for area schools by coaching team sports and facilitating content- specific events and activities. The role-playing vignettes that were acted out were specifically designed to prepare the students to successfully handle situations that might reasonably arise both in their service-learning activities and when they become full-time physical educators. The purpose of this study was to determine the effects of using the role-playing strategy with a group of student teachers. The success, or lack of same, was to be determined according to three factors: student attitudes toward participating in the strategy, their skill level while role-playing the required skills, and the degree of confidence they expressed toward the use of these skills in the future as compared to

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learning the same content through a lecture format. The specific research questions were: will the use of the adapted version of Shaftel's role-play model (1) increase students' classroom interaction with peers and with instructors? (2) increase students' positive responses to course content? (3) increase students' confidence toward their future participation in the service-learning activity as well as in their student teaching?

Academic role-playing (not the same as roleplaying games) can be defined as the involvement of participants and observers in a real problem situation along with the desire for resolution and understanding that this involvement engenders (Joyce, Weil, and Calhoun, 2009). The role-playing process provides a live sample of human behavior that serves as a vehicle for students to (1) explore their feelings; (2) gain insights into their attitudes, values, and perceptions; (3) develop their problem-solving skills and attitudes; and (4) explore subject matter in varied ways (Joyce and Weil, 1980). According to Henriksen (2004), role-play is "...a medium where a person, through immersion into a role and the world of this role, is given the opportunity to participate in, and interact with the contents of this world, and its participants" (p. 108). Seaton, Dell'Angelo, Spencer, and Youngblood (2007) suggest the use of role-play to help in the development of self-awareness, selfregulation, and self-monitoring. In a Finnish study of role-playing games, Meriläinen (2012) describes the self-reported social and mental development of role-players. Specific skills that can be gained by roleplay include modifying one's performance in light of feedback, becoming a good listener, showing sensitivity to social cues, managing emotions in relationships, and exercising assertiveness, leadership, and persuasion (Elias et al, 1997). Karwowski and Soszynski (2008) used role-play successfully to train undergraduate education students in creativity, but they also believe that it can develop a capability for constructive criticism. Sileo, Prater, Lukner, Rhine, and Rude (1998) suggest role-playing as well as service-learning as appropriate strategies to facilitate pre-service teachers' active involvement in learning.

According to Randel, Morris, Wetzel, and Whitehill (1992), students should not be expected to learn to deal with complexity unless they have the opportunity to do so, and the authors of the current study believe that role-playing provides an opportunity to address such complexity. In a study designed to compare lecture versus role-playing in the training of the use of positive reinforcement, Adams , Tallon, and Rimell (1980) found that the performance of the lecture-trained staff was stable or declined after an initial improvement whereas the performance of staff that role-played continued to improve. Moore (2005) reminds that teachers often use role-playing to facilitate learner involvement and interaction in the process of decision making. Svinicki and McKeachie (2011) see the chief advantage of role-playing to be that students are active participants rather than passive observers and therefore must make decisions, solve problems and react to the results of their decisions. Dell'Olio and Donk (2007) believe that role-playing helps students make responsible autonomous choices because it provides a forum for exploring multiple ways of acting and reacting in a given situation. Hall, Quinn, and Gollnick (2008) state that experiences gained through role-play can take the place of firsthand experiences that may be impossible to otherwise achieve, and further explain that teacher-education candidates often cite such experiences as the most informative and influential part of their teacher-education coursework. Randel et al. (1992) found that students reported more interest in role-playing when compared to traditional methods of teaching. A concern, however, regarding the use of role-play is raised by Shepard (2002) who describes the anxiety often experienced by students who have not previously role-played before, particularly since they would be required to do it in front of their classmates. Henriksen (2004) too expresses concerns that not only might students be anxious but also that they may think that role-play is associated with a childish image. For their part, teachers are attracted to role-play, particularly if their theoretical orientation is constructivism, allowing

to learn by making connections between their own knowledge and experience and the real world (Kindsvatter, Wilen, and Ishler, 1996).

2. CONSTRUCTIVISM AND THE NATURE OF THE LEARNING PROCESS

As used in this study, the nature of the learning process is that it is an intentional process on the part of the learner of constructing meaning from information and experience. Academic roleplaying is an example of the use of constructivism and student-centered learning wherein students are enabled to create their own meaning from participating in realistic life situations. According to Lainema (2009), constructivism has recently gained popularity again although it is certainly not new, but even today it is difficult to define it unambiguously. Building on the ideas of Dewey (1910), Piaget (1970, 1972), Vygotsky (1978), constructivism can be defined in a variety of ways with differing areas of focus. Kauchak and Eggen (2007) define it as an "eclectic view of learning that emphasizes four key components: (1) learners construct their own understandings rather than having them delivered or transmitted to them; (2) new learning depends on prior understanding and knowledge; (3) learning is enhanced by social interaction; and (4) authentic learning tasks promote meaningful learning"(p.9). Ormrod (2000) says that while there may be no single constructivist theory, most adherents recommend these same five beliefs: complex, challenging learning environments and authentic tasks; social negotiation and shared responsibility as a part of learning; multiple representations of content; understanding that knowledge is constructed; and student-centered instruction. Lainema (2009) agrees that constructivism has been described by some as more a set of principles than a coherent theory and that all advocates do not necessarily share the same view of these principles. Marlowe and Page (2005) contrast constructivism with the more traditional lecture approach in four ways: constructivist learning is about constructing knowledge, not receiving it; constructivist learning is about understanding and applying, not recall; constructivist learning is about thinking and analyzing, not accumulating and memorizing; and constructivist learning is about being active, not passive. Most constructivists agree that constructivism focuses on what students do and experience, and learners are therefore encouraged to take control of and become increasingly responsible for their own learning.

Building then on the theory of constructivism, we further define learning as the intentional, meaningful,

coherent representation of knowledge. It occurs best when learners are goal-directed, and it is successful when they can link new information with existing knowledge in meaningful ways. It can be enhanced when learners have the opportunity to interact and collaborate with others (American Psychological Association, 1997). Role-play as an instructional strategy takes advantage of these practices connecting new experiences to previous knowledge and experience, and doing it in the company of others. According to Gunter, Estes, and Schwab (2002), the only thing that really matters to learners is the meaning students construct for themselves. Lainema (2009) defines learning as an active process of constructing rather than communicating knowledge. It also is best when learners experience insight which is defined by Bigge and Shermis (2004) as getting the feel of, or catching on to a situation. All of these conditions are further enhanced when students feel psychologically safe (Rogers, 1969). Overall, learning should involve purpose and movement toward a goal. To design curriculum so that this type of experience occurs for students, professors should design active, learner-centered strategies that ideally start with relevant problems that students are motivated to resolve and apply to their own lives. In our opinion, role-playing satisfies these criteria. In our use of role-playing to prepare students to become effective teacher/coaches, we defined our roles as facilitators and discussion leaders.

3. METHODS

3.1 Participants of the Study

Participants of the study were undergraduate physical education seniors from a large diverse urban American research university who were taking a capstone secondary teaching methods course with a sustained service-learning component (i.e., coaching an after school soccer program). The course was specifically designed to prepare pre-service teachers to become physical education teachers and coaches in the public schools. Those taking the course in the fall of 2010 and spring of 2011 were in a control group (N=50), and the other students who took the course in the fall of 2011 and spring of 2012 participated in the role-play intervention (N=52). A subset of 24 of the 52 intervention group students (13 males and 11 females) participated in the specific role-play activities and responded to both of the two questionnaires administered in this study. The two investigators were professors in the same College of Education and Health Professions (one from a Department of Curriculum and Instruction, and the other from a Department of Kinesiology). An internal review board for research approved protocols for this study.

3.2 Role-Play Activities (The Intervention)

The role-playing model used in the study is by George and Fannie Shaftel and consists of nine steps: (1) warm up the group, (2) select participants, (3) set the stage, (4) prepare the observers, (5) enact, (6) discuss and evaluate, (7) reenact, (8) discuss and evaluate, and (9) share experiences and generalize (Shaftel and Shaftel, 1967). The intent of the Shaftel model, and of the investigators' several variations of it, was to teach problem-solving attitudes and skills such as the ability to identify a problem, to design a plan to resolve it along with alternative techniques, and to experience the consequences of a variety of different ways to handle problem situations. No game-like elements or rewards were added to the role-playing used in this study.

A unique educational advantage of the Shaftel model is their fourth stage – preparing the observers. By assigning students who are not actually playing one of the roles to specifically observe one of the players, all members of the class become directly involved in the process. Then, during the sixth stage - discuss and evaluate - non-participating students are asked to report out on their reaction to the role that was played: was it realistic, was it successful, what values were being upheld by the players, is there another way the role could be played to reach the same conclusion or a different conclusion? In large university classes, students are more likely to become and remain engaged in the role-play if they have been given a direct assignment to observe and critique one particular player than if they are simply present in the room when other students are roleplaying.

In therapeutic settings, when role-play is used, participants are encouraged to focus on feelings, and that type of role-playing known as psychodrama or sociodrama is therefore designed to allow for feelings to be expressed along with insight into one's own behavior and that of others. On the other hand, in the educational setting, the Shaftel model emphasizes the intellectual content as much as the emotional content, and the analysis and discussion that follow the enactment are as important as the role-play itself (Joyce and Weil, 1980). In the roleplays in the current study, students were encouraged to do both - to acknowledge their feelings and to address the cognitive course content being tapped by the vignette. Further they were asked to look for the assumptions which underlie people's verbalizations and behavior. As the post-role-play discussions

continued, students were also asked to identify the values that were being expressed. The Shaftel model is designed to deemphasize the traditional role of the professor and instead for the professor to listen and learn from the group. When the learner has an opportunity to interact and to collaborate with others on instructional tasks, learning is enhanced (American Psychological Association, 1997). A final goal of the Shaftel model and of this research was therefore to allow students the opportunity to bring to their conscious awareness their own values while testing them against the views of others. In teacher education this is of significant importance as instructors try to move students to where they may either validate their current values or to revise them as they learn from other positions and value systems.

An original vignette or written scenario was provided to the students on an overhead projector, and students were instructed to determine what they thought the "intended outcome" or solution to the problem should be. They were then instructed to plan techniques or dialogue they would use to accomplish their "intended outcome". While the students were writing their plans, a table and chairs were placed in front of the classroom. At that point students volunteered (and in some cases were selected) to role-play the parts in the vignette. After the roleplay was concluded, the investigators and the other class members provided feedback and reactions. Additional role-plays were then conducted using the same vignette to give other students the opportunity to try out their own implementation ideas and interaction styles.

Variations or adaptations that were added to the Shaftel model for this study included having the students plan in advance and to write out how they would act out their roles, focusing on their designation of an "intended outcome." A second variation allowed the student portraying the coach/ physical education teacher to pick a "back-up" to sit behind him/her during the role-play to serve as a helper (to make helpful suggestions from the sidelines) if he/she hit an impasse with the person playing the other character in the vignette. A final very popular variation called for all the students in pairs to do practice role-plays at their seats (to try out their ideas and plans) before volunteering to roleplay in front of the class. Each of these variations was used with some of the vignettes, but not with all of the vignettes.

3.3 The Vignettes Used for Role-Plays

According to Schick (2008), role-play participants are more likely to give full effort and to be accomplish

the tasks and thereby acquire the skills being taught when a role-play is about something that they find personally meaningful. The five original vignettes used for the role-plays were composed because the content was deemed to be personally meaningful to this group of students. The following issues that students might reasonably encounter both in their service-learning activity and as beginning teacher/ coaches were: public school students not motivated to participate; aggressive students who are hurting other students; sexual harassment toward the teacher/ coach; challenging the teacher/coach's authority; and establishing a working relationship with a senior coach who is not interested in the school's physical education program. In all of the vignettes except the one with the senior coach, all roles were played by members of the class. In the vignette about the senior coach, one of the investigators played the role of the coach. When the investigator was role-playing, the students loved getting a chance to "outsmart" their professor. One of the most interesting responses that occurred after each of the post-role-play discussions was completed was that students volunteered other similar situations that they would also like to roleplay. After the role-play on sexual harassment by a male student toward the young female teacher/ coach, for example, students suggested they roleplay sexual harassment toward a male from a female student and also same-sex harassment for both genders. Like the pre-service students described by Sobel and Taylor (2005), our students too requested more real-world scenarios to solve.

This is the vignette used for the too-aggressive student:

Fifth period rolls around and this time the juniors and seniors enter the gym for a class called "team sports." They tell you they have been playing a flag football unit and a few students go into the closet and pull out the necessary equipment. A senior named Dominick divides up teams and runs the class very efficiently leaving you very little time and opportunity to manage and/ or control anything. The game begins and Dominick exhibits extremely aggressive behavior toward the opposing team - hitting students hard and tripping and tackling them to the ground violently. He is also abusive to his own teammates, yelling at them when they make mistakes and blaming them for anything that goes wrong on their team. It is obvious the students are afraid of him and will do anything to try and just appease him and/or stay out of the way.

You ask Dominick to speak with you in the office. What is your next move?

3.4 Sources of Data: Quantitative

Two sources of quantitative data were used for analysis in this study. The first utilized a 14-item Likert-scale questionnaire developed by the provost's office regarding course effectiveness and class interaction in a university course. This instrument was administered three times at even intervals to pre-service teachers throughout each of the control and role-play semesters. Based on relevance to this study, only six of the original 14 questions were retained for analyses. Because data was collected on participants in this course the academic year previous to when the role-play interventions were conducted, a quasi-experimental non-equivalent groups design was applied to this dataset using a paired samples T-test analysis. This test compares the means of two variables, computes the difference between the two variables for each case, and tests to see if the average differences are significantly different at the p<.05 level. The second set of quantitative data was collected from a summative and descriptive questionnaire specifically addressing the usefulness of the roleplay activities in the course and comparing it to traditional lecture-style methods. This questionnaire was only administered to the pre-service teachers who participated in the role-play activities during the very last semester of the intervention (i.e., intervention group-spring 2012 [N=24]).

3.5 Sources of Data: Qualitative

Using a naturalistic approach (Lincoln and Guba, 1985), qualitative data was collected in the form of a role-play questionnaire, a student focus group, and individual reflections written by the instructors. This data was recorded, transcribed, and analyzed, noting all salient and recurring units of meaning that were reported. These themes not only helped explain and clarify the quantitative findings, but they also served to address some of the quantitative limitations and provided a more complete and in-depth description of phenomena happening within the study.

4. RESULTS AND DISCUSSION

4.1 Course Effectiveness Questionnaire

Findings from the course effectiveness questionnaire showed significantly higher scores reported among pre-service teachers who participated in the role-play activities on two of the six items (Figure 1). The first item, "The instructor asked students in class to participate in a discussion of the topic at hand?"

exhibits how using role-play in a course can force the instructor to engage students with the content at hand and create more of a student-centered teaching and learning environment. The second item, "The student asked or responded to a question from the instructor or fellow students?" demonstrates and supports what others have found in the literature about the level of participant engagement required of role-play activities and the effect it can have on participants.

4.2 Role-Play Questionnaire

Responses to the five descriptive questions on the summative role-play questionnaire were as follows:

Q1) Have you had previous participation in role-play activities?

No: 17

Yes: 7

Note: The 7 students who said they had previously participated in role-play activities stated that they had all experienced role-play in their university teacher education courses except for one student who said she had experienced role-play in a high school theatre arts course.

Q2) Describe your reaction to the use of role-play as preparation for your service learning as well as for your first teaching job:

Very helpful: 24

Not helpful: 0

Q3) Comparing role-play to the traditional university lecture method, which do you prefer?

Prefer traditional lecture method: 0

Prefer role-play scenarios: 22

Likes both equally: 2

Q4) Describe your learning engagement level during role-plays compared to lecture style:

More engaged during role-play - 21

Mentally engaged but did not volunteer to role-play in front of the class – 3

Note: One of these three students explained: "There were sometimes where I could have participated, but opted not to. In my mind I was engaged with classmates during their individual role-plays." It became obvious to the researchers that these three

students had misunderstood the use of the term "engaged" as used in this role-play questionnaire.

Q5) Regarding your critical thinking ability, compare the two styles:

More engaged in critical thinking during role-play – 23

More engaged in critical thinking during lecture – 1

Note: This second student's explanation was "Because everyone was thinking at one time, I didn't have to." But further in the questionnaire, he wrote: "I'm a hands-on learner, and the role-playing scenarios actually put me in the situation instead of just reading about it in a book."

Other specific comments on the questionnaire included:

"Role-play gets you closer to the real deal rather than listening to someone just tell you how to react. It was never boring; I was always eager to see how different people would respond. I looked forward to seeing all the different techniques. I feel like it forces you to respond quickly while thinking critically as opposed to lecture where people can just act like they are paying attention."

"I had to pay attention because I didn't have the situations in a book to read later."

"Being able to reflect back on these role-plays and notes I took will help me handle that situation better than I would if I had no prior experiences."

"They help me figure out the "goal" because we may not have really known it before then. I need to focus on the goal and not allow my emotions to overtake the goal." (Note: The comment by this student refers to their instructions to write out the intended goal before attempting the role play).

"Role-Play gives me a lot better idea of "real world" situations and it has put more tools in my bag."

"Only when you find yourself in a problem situation do you learn the feelings, obstacles, etc. as if you really would in the real world. It really doesn't help me personally to be told how to handle a situation. It is easier to learn through DOING."

"The biggest benefit was that I was able to hear how others would respond to specific situations. As I watched others participate, I was able to place myself in the situation and think more critically about my answers."

Overall, their answers on the questionnaires revealed that learning from one's peers, trying out ideas in a safe environment, being forced to plan an intended outcome in advance, and hearing feedback from others were their most valued experiences.

4.3 The Focus Group

Discussions that emerged from the focus group included themes relevant to situations likely to occur while working in a secondary public school setting (e.g., planning for success, confidence building, effective communication, and utility of process). All comments were in one way or another reflections about the authenticity of training for life in schools despite the fact that it was not literally "on the job" training. Finding one's style or strategy for dealing with the challenges and realities of the profession was explicit, as it was noted time and again that this learning strategy was effective at bringing out individual strengths and weaknesses when it came to dealing with common situations educators are faced with every day. As a result, the role-play experience provided an initial or baseline realization about how pre-service teachers are likely to respond on the job, allowing for deep-seated reflection and self-analysis of how to handle similar situations that are just around the corner in their service-learning projects and/or student teaching residency.

The other part of the focus group discussion reflected some of the benefits of going through an authentic and mentored kind of learning exercise without being tied to a "real" situation with direct consequences. Not too often are novice teachers allowed a trial "run-through" that encourages mistakes to be made without any real consequences to students. This includes the affordability role-play allows to take a time-out, consider multiple angles and solutions, and re-think how to approach a particular situation. These exercises allowed for extra time and space for questions, new ideas, elaborations, and redirection of an experience in order to gain depth and understanding of the appropriate (and inappropriate) ways to approach or handle teaching interactions and learning situations. This is critically important since we know that a teacher's word choice, body language, and personal disposition represents everything meaningful when working with students.

It was also discussed that this platform makes it possible to learn from multiple people with diverse experiences (not just the professor), and to gain a multi-dimensional perspective about how to deal with the problem effectively and in different contexts. Finally, there was consensus among participants that the role-play strategy helped

Figure 1: Paired Samples Tests of Course Effectiveness Survey Items

	Mean Difference	Std.		
	(Control- Experiment)	Deviation	t	Sig. (2- tailed)
Instructor asked students to participate in a discussion of the topic at hand.	-0.12	.59	-2.115	.037*
Instructor allowed students to interact, compare notes, work in groups, etc.	-0.06	.51	-1.337	.183
Instructor called for students to provide feedback on what is happening in the class.	-0.04	.57	744	.458
4. Students worked together with other students.	-0.03	.66	515	.607
5. Students helped a fellow student better learn a concept.	0.04	1.19	.355	.723
Students asked or responded to a question from the instructor or fellow students.	-0.19	1.06	-2.080	.039*

^{*} Significant at the p < .05 level

pre-professionals better foresee challenges and to take the necessary time (or buy time) to prepare for precarious situations that are likely to occur at some point in their career. In effect, the role-play activities enabled teacher candidates to be on the lookout for conflict or divergence, to be proactive rather than reactive, and to know how to best take advantage of an opportunity when presented.

4.4 Investigators' Observations

Much to the credit of teacher education research over the past few decades, literature has repeatedly pointed to experiential training as an effective means for preparing student teachers for their work in education (Coffee, 2010; Domangue and Carson, 2008; Wasserman, 2009). This work has largely focused on the implementation of theoretical and content knowledge mixed with practical field experience provisions (e.g., service-learning), beyond mere lecture and examination of generalized course material. Although this push has enhanced teacher education methodology to include practical experience and guided reflection with experienced mentorship, service-learning in itself still has its limitations. Foremost, service-learning is affecting learners in real-time and you do not get "do-overs." You can't just call "time-out" and reexamine how you would handle a situation or take a moment to analyze all the variables that go into split-second decision-making when working with large groups of students; you are still teaching in real-time. By adding in a third component like role-play into this teacher training trifecta, teacher educators have another tool to prepare for likely situations by evaluating, analyzing, and redirecting a preparatory experience before the actual service-learning experience takes place. In determining whether learning did or did not take place, we agree with Jonnassen, Peck, and Wilson (1999) that assessment of this type of activity is process-oriented, and one of the most valid forms of assessment is therefore to assess while the learning is occurring.

5. CONCLUSION

Every secondary level teacher knows that working with teenage students is not always an easy job. Every day there is a new challenge that educators must face, and it takes time and experience to learn how to handle situations appropriately with this population. Gaining real-world experience in a university

setting is oftentimes difficult because access to schools and students is also never easy or convenient. Using role-play techniques to guide future educators for those likely difficult encounters is an effective way to construct a platform for the exploration of issues, provide practical mentorship, and inspire reflection about best practices. This study has shown that academic role-play in a teacher education course with a service-learning component can improve course interaction between instructors and students and also between students and students, therefore strengthening the active-learning dynamic in a university classroom. With regard to the specific questions addressed in this research, we conclude that the use of the adapted version of Shaftel's roleplay model did (1) increase students' classroom interactions with peers and with the instructors; (2) did increase students' positive responses to course content, especially as compared to the same content taught without the use of role-play; and (3) did increase students' confidence toward their ability to succeed in the service learning activity as well as in their student teaching. Future research, however, is needed to explore whether and to what extent student background variables such as age, gender, performance anxiety level, and previous academic as well as non-academic role-playing experience would make a difference in students' reactions and responses. Since this research utilized an adapted version of the Shaftel role-play model, results may have been different if only the original nine-step Shaftel model had been used. It would also be interesting to determine if the students would have responded in the same way if they were only going to become future teacher/coaches but were not also preparing to do a service-learning project that would affect their course grades. Because this study did not control for those variables, and because of the small N, generalizing regarding the use of role-play with all teacher education students studying to become coaches and physical education teachers while enrolled in service-learning courses should be made with caution.

Notes. 1. To prepare future teachers for their student teaching/practicum/residency semester required by most states in America, teacher educators often require students to role-play a teacher in a micro teach format within which they teach a lesson to a simulated class of students.

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