


Connecting the Clinical to the Classroom

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Abstract: The student said, "Oh, that is why we learned that!". The student that sparked this research admitted that as she went through the program she often thought, "why are we learning this? I cannot see utilizing this in my everyday job." In academia today, we often treat the clinical or practicum experience as a separate component of the learning. Some schools even front load the content so they do all of the experiential learning after the classroom portion is over. Experiential learning works best when the learner can connect what they see and hear in the classroom to what they are actually seeing and doing in the field. There are a number of ways to bring the two worlds together. One program did just that and based on findings, the students felt better prepared for the job after graduation. The element of the unknown was removed. Students reported feeling more prepared for their new career and were able to fully grow during the orientation.

Keywords: Clinical, Classroom, experiential learning

Citation: Cornelius, S. (2023). Connecting the Clinical to the Classroom. In *Proceedings of IConSES 2023--International Conference on Social and Education Sciences* (pp. 168-174), Las Vegas, NV, USA. ISTES Organization.

Introduction

For a healthcare student to succeed in the course of study many connections must be created throughout their program to allow for retention of information. Students must see the learning as a process and the client as a whole as opposed to the tasks involved in their care. One issue that has plagued educators over time is how to connect the content that is presented in the classroom or the lab to the clinical practice in a manner that encourages those connections.

Historically, programs of healthcare and nursing taught a passive lecture and activity package in the classroom that was more successful with auditory and visual learners. They sprinkled the experiential learning clinical hours weekly throughout the program and this allowed for the kinesthetic learners to gain some practice. Students were often studying diseases of the respiratory system in the classroom and had an oncology client in the clinical setting in the same week. With no congruence of classroom content to clinical content, the student treated these two pieces of learning as separate courses and rarely found the connection between the two. The two sections of the course were taught in different styles as well as with separate outlines of content. The classroom was very rigid, planned: while the clinical area was very opportunistic based on what clients were

available on the floor they were utilizing that day. The intentionality was not there to choose clients that matched the classroom. Students often looked for the tasks such as putting in a Foley catheter or starting an IV rather than what disease process was being discussed in the classroom.

We know “The learning style determines the learning quality, which in turn affects the well-being of college students” (Han, 2022). If we wanted all learners to retain both classroom and clinical situations we needed to utilize a way that brought the two together. The research method of organically combining the theory of the thinking with the way of action is the most effective approach to improve classroom retention of knowledge (Thoms, 2020).

According to Raab (2021), “the theory of “action learning” believes that learning activities are a series of continuous processes of action and reflection, which is the combination of structural knowledge and the four elements of questioning, reflection, and execution, emphasizing the construction of learning through the reciprocating cycle of knowledge, reflection, and action”. Further, Donald Schon’s theory reflecting-in-action (Schon, 1991), allows for students to reflect on what they know about the content as they are experiencing it and make connections between the new and prior content.

This unending loop of content from the lecture and activities in the classroom to the experiential learning of the same content in the clinical setting and then back to the classroom was the basis for this study. Allowing multiple learning styles to be utilized and with repetition of the content in different methods, students were able to retain the information longer through connections from the known knowledge to the learned knowledge.

Population

This study followed 92 college students through their second semester of a four semester Baccalaureate of Science in Nursing program at a small South Eastern private university. The course utilized was a Mental/Behavioral Health Nursing course that is offered Spring and Fall each year. Students were followed in two cohorts to gain a larger sample overall in the Fall and then Spring of 2022/2023 academic year. They were randomly chosen for clinical placement by an outside clinical coordinator not involved in the study as to keep the groups random. The demographics of the students are as below in Table 1.

Table 1. Demographics of Students

Variables		N	Mean
Group	A.	47	51
	B.	45	49
Age	20-24	70	76
	other	22	24

Gender	F	88	95.6
	M	4	0.04
Total		92	

Method

Two groups of students were studied in reference their clinical experience and the timing of it in connection with the classroom contact. Group A went to clinical weeks 3-7 of the 15-week semester; Group B went to clinical weeks 9-13 of the semester. Whether they were in clinical or not, students met in the classroom on campus each week for lecture, discussion, activities, and reflection. The content taught in the classroom was the same for all cohorts. The classroom was on Tuesday and the Clinical experience was on Wednesday each week so they had the content of the class fresh in their mind.

Group A began clinical experiences at a local inpatient behavioral health unit based in a locked hospital unit of the metropolitan city in which the university is based. The students received basic information in the two weeks prior to clinical on safety, what they might see in the hospital setting, what the client can and cannot do, and the basics of therapeutic communication. All students were to go in with the goal of completing a therapeutic conversation and to analyze the transcript of the conversation for improvement. Group two had clinical later in the semester once most of the content was already delivered, but with the same goal.

In addition to what was being taught in the classroom each week, Group A was prepped for clinical utilizing the content they had discussed in class that week. For example, when the topic of addiction and dual diagnosis was discussed in class, students were encouraged to seek out clients with these types of diagnoses in the clinical setting. If a student was on a cardiac floor and they were discussing respiratory disorders in the classroom; the student could still perform a focused respiratory assessment on a cardiac client as well as look for clients on the unit that had co-morbidities such as Chronic Obstructive Pulmonary Disease (COPD) or other chronic respiratory disorders.

The intentionality of creating an experience that repeated what they were doing in the classroom had to be there for the student and the professor. Professors and students alike were taught to think of the content in a concept-based way instead of just in the setting it was presented. They were encouraged to reflect in action by bringing what they had learned in the classroom the day prior to what they were seeing in the clinical setting on the next day and then talking through it with a debriefing as a group at the end of the clinical experience.

Professors in the past had thought, “we are on a cardiac floor, let’s see everything we can about cardiac in case we do not see it again”, when in fact the student had not even gotten to the cardiac content yet in the classroom and had a very disjointed experience. This added to the confusion for students of what to do while in the clinical

setting and how it was connected to the learning for the next exam they were preparing to take. This also made the learning very disconnected. When the student felt they did not have enough knowledge to care for the client

they were assigned, they sought something out that they did know. They had been taught all “skills” before clinical and wanted to practice putting in a catheter or placing an intravenous line. These are tasks that do not take as much critical thinking as managing the client’s care plan and long-term prognosis. The debriefing session after clinical when a student did more task-based care is much less fruitful. Students need to see an entire “case” or story of a client to connect the pieces of the learning needed. It is difficult to Assess, Diagnosis, Plan, Intervene, & Evaluate (Nursing Process) when the only things they did for the day are a multitude of tasks that did not connect to any client in specifics.

Adult learners need to connect the new content to something they already know. Malcolm Knowles (1973) described in his book *The Adult Learner* 5 assumptions that we can be seen in students at all ages after K-12.

1. Adults become more independent as they move through life. Rather than being dependent personalities like children, we become self-directed individuals as we grow older.
2. Adults have vast previous experience from which they can draw knowledge and references into the learning process.
3. Adults want to learn and are prepared to do so when there is a good reason.
4. Adult learners want their learning to be actually applicable to their everyday lives.
5. As humans grow older, their motivation to learn becomes internal. (Knowles, 1984)

These students had to have these needs met to fully get the experience we were trying to give to them. As we designed the classroom activities, we wanted students to have something to build upon. For example, practicing the principles of therapeutic communication in the classroom with a partner was “awkward” but they at least were able to put those principles into practice. Then once they were in the presence of a patient that they needed to speak therapeutically with, they at least had a practice session to look back on to remember what was good and what could have been executed more properly.

Students also needed to know why this was necessary to their everyday lives as a nurse and what is the rationale for being prepared with this information. Students quickly noticed how the conversations were very different in the setting of behavioral health than in the medical surgical areas. They needed this information to be able to practice safely in the clinical setting and to understand the material to be able to pass the exam.

Professors in the clinical area and in the classroom had to buy-in to the process because it was a substantial change for them. There also had to be significant communication between the clinical and classroom professors as well planning prior to the semester. If the clinical professors did not make the change, then the students did not truly get the benefit of the method. Some were much more open to the change than others. Professors also had to guide the debriefing session at the end to bring those connections together.

Group B did not get to attend a clinical experience until more than halfway through the semester. In conversations with their peers some were jealous that they were not getting to see it as they learned about it. Others just wanted to ensure they passed the exam and would “think about the clinical part later” a student stated. The students also were not “prepped” for clinical as the first group was prepped. The students were sent to clinical and were allowed to choose from a list of clients that the professor had selected. Some students chose clients that resembled what they had been discussing in the classroom, but most students chose clients that sounded interesting to them with no regard for diagnoses that were currently being taught.

At the end of the semester, students were asked to complete an 8-question survey in 5-part Likert style to determine what they felt they learned or did not learn in the class/clinical experience. Students took a standardized assessment formulated by the professor at the beginning of the class from an Elsevier product called Elsevier Adaptive Quizzing (EAQ)s. At the end of the semester the student took another standardized exam created by Health Education Systems Inc. (HESI) on Behavioral Health content. The EAQ score was compared to the HESI score to see that they had improved. The survey gave numeric data as well as qualitative comments about the process.

IRB approval was obtained from the university and all students that participated were under a voluntary basis. The Likert surveys were completed on paper without names and were collected by someone other than the principle researcher to maintain anonymity. Data was collected and input into an excel spreadsheet that was password protected. Pages that were originally written on were shredded in a secure place. All information was stored deidentified and securely on the university server and password protected.

Results

Overall, students that were in Group A reported that they were more prepared for clinical. Of the 92 students surveyed, 87% ($n=80$) reported SA or A that where the clinical was placed in the semester made a difference in their learning. Students in Group A that went to clinical as the content was being taught and sought out that content in the hospital setting claimed that it was easier for them to make the connections. Group B said they could see the difference in their classmates that were in clinical at the time of the content in class.

One student said, “When I am talking about therapeutic communication in the classroom then we practice it on each other, I do not always connect it to a real patient. When I used therapeutic communication the day after it was taught and we practiced in the classroom, it made things clear to then go practice it on a patient (Student survey, March 2023)”. Another said, “I wanted to just pick the most interesting patient but I see now how looking for the clients that we were studying in the classroom actually helped me bring things together and study for the exam.” Anecdotally, students reported in comments that they were more prepared for the exams as well while they were seeking the classroom content out in the clinical setting.

Students in Group A versus Group B did slightly better on the transition from the EAQ test at the beginning and the HESI exam at the end. Group A's mean scores increased by 13% from pre-course EAQ to post course HESI; Group B increased by 9%. There are a number of variables to take into consideration but there is a definite increase in Group A (control group). The data will continue to be collected for a larger sample.

	EAQ Mean	HESI Mean	Mean Growth
Group A	78%	91%	13%
Group B	75%	84%	9%

Figure 1. Percentage of Growth from Pre-Course Testing to Post Course Testing

Table 2: Questions included in the survey

- How old are you? 20-24 years old OR other
- Which gender do you identify with? Male Female Other
- Which race do you identify with?
*LatinX *African American or Black *Pacific Islander *Caucasian *Native or Indigenous *Asian
*other
- How satisfied were you with the placement of your clinical- 1st half or 2nd half?
*Very Much Disliked *Disliked *Neutral *Liked *Very Much Liked
Comments:
- Do you feel the placement made a difference in your learning in the course?
*Very Much Disliked *Disliked *Neutral *Liked *Very Much Liked
Comments:
- Did you seek clients that were similar to the ones we were discussing in the classroom whether they were assigned to you or not?
* Never *Sometimes *Neutral *Frequently *Always
Comments:
- Did you feel prepared for clinical?
*Very Much Disliked *Disliked *Neutral *Liked *Very Much Liked
Comments:
- Which half were you in clinical – 1st or 2nd- and would you do that again if given the choice?
* Never *Sometimes *Neutral *Frequently *Always Comments:

Taking into the consideration the increase in testing scores but also the Likert Survey and the comments in the survey- we will be continuing this process of preparing the students to look for what they are studying in class to

the same content in the clinical area. Our goal is to move it into other clinical areas besides Behavioral/Mental Health.

Conclusion

There is data to support making the clinical component match the classroom content at the same time does help increase the connections for the student and their bridge from classroom to clinical and eventually to career. To fall back on Knowles (1973), the adult learner is able to make connections to content that is known, they are seeing what it actually will mean to the activities of daily in an employment situation, and they see the connection to the learning. Utilizing the multiple learning styles also increases the retention of material.

Recommendations

Recommendation is to submit this data to the other courses in the program in hopes of it going into each clinical course. Faculty buy-in is a barrier so ensuring the faculty have the tools before the idea is pitched is essential. Prep the students early in the program so they are unknowingly looking at clinical as an extension of the classroom instead of a separate course.

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