# THEORETICAL AND BEHAVIORAL FEATURES TO BE CONSIDERED WHEN PLANNING AND IMPLEMENTING A PBL CURRICULUM 

## ASPECTOS TEÓRICOS Y CONDUCTUALES A CONSIDERAR DURANTE LA PLANIFICACIÓN E IMPLEMENTACIÓN DE UN CURRÍCULO ABP

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#### Abstract

This work complements former articles about an Argentinean PBL curriculum after twelve years of development. In this context, it points out determined inflexible features linked to its theoretical-pedagogical basis and certain counter-productive behaviors detected in some planners, teachers and students during its design and/or enduring implementation. Hence, reflections are made on learning and adult learning (andragogy) theories. Furthermore, related questions and some aspects to be overcome are presented and analyzed. In this way, it also intends to honestly and responsibly warn well-trained curriculum planners and executors to be cautious when choosing and managing learning theories. Likewise, it complementarily highlights the need of refocusing teachers that, pretending to be forward-looking ones, end up harming what at first proclaimed to benefit: the students


Key Words: Theory - Behavior - Planning - Implementation- PBL - curriculum

## Resumen

Este trabajo complementa artículos previos sobre un currículo ABP de doce años de desarrollo en Argentina. En tal contexto, señala determinados aspectos inflexibles ligados a sus bases teórico-pedagógicas y ciertas conductas contraproducentes detectadas en planificadores, docentes y alumnos durante su diseño y/o prolongada implementación. Se concretan reflexiones acerca de las teorías del aprendizaje y del aprendizaje adulto (andragogía) y se presentan y analizan, también, particularidades relacionadas así como definidos aspectos a superar. De este modo, el trabajo intenta advertir honesta y responsablemente a los planificadores e implementadores curriculares expertos a fin de que actúen con cautela durante la elección y el manejo de las teorías del aprendizaje. Asimismo, pone de relieve la necesidad de reorientar a los docentes que, pretendiendo ser de avanzada, terminan perjudicando a quienes proclaman beneficiar: los alumnos.

Palabras clave: Teoría -Conducta -Planificación - Implementación - ABP - Currículo

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## Introduction

In a former article, a pioneer primary-care oriented pure PBL curriculum implemented in Argentina since 2002 and essentially based on constructivism and adult learning theories was analyzed after twelve years of development, with several enduring obstacles pointed out ${ }^{(1)}$.
Widening a related previous letter to the editor ${ }^{(2)}$, this work emphasizes determined inflexible features linked to its theoretical-pedagogical basis and certain counter-productive behaviors detected in some planners, teachers and students during its design and/or enduring implementation. In this way, it also intends to honestly and responsibly warn well-trained curriculum planners and executors for evading those theoretical-pedagogical inflexibilities and those harmful misconducts.
Three questions may become a suitable guide for achieving these goals:

1. May constructivism and behaviorism, daily presented and taught as undoubtedly antithetic theories, coexist or alternate in determined learning situations?
2. May adult learning theory (andragogy) be extrapolated to adolescents and applied to them without any adjustments?
3. What kind of human behavior, when planning and implementing a curriculum could affect the students counter-productively?
While the theoretical features of constructivism, mainly supported by Jean Piaget, Lev Semiónovich Vygotski, David Ausubel, Joseph Donald Novak and Jerome Bruner are far from being currently objected, objections remain particularly on its automatic and inflexible translation to practice in unsuitable contexts ${ }^{(3,4)}$.
Regarding behaviorism and its supporters (John Broadus Watson, Edward Thorndike, Ivan Pavlov and Burrhus Frederic Skinner, among others), it is worth mentioning that motivation, stimulus repetition, positive reinforcement and reward may be helpful in determined circumstances wherein behavior plays a noticeable role ${ }^{(5)}$.
As something similar may occur in some kind of assessments where behavior cannot be underestimated at all the above mentioned incompatibility does not appear to be as absolute as habitually established.
On the other hand, since learning and adult learning (andragogy) theories may be partially or
completely modified in the future depending on scientific-technological advances ${ }^{(6)}$, planners and executors should be extremely cautious when deciding to apply both to the design and implementation of a pure or hybrid PBL medical curriculum in line with the SPICES model. With regards to the compatibility between adult (andragogy) and adolescent learning styles and according to Piaget's stage theory of cognitive development, adults should show a better developed abstract thinking when compared with adolescents. This particularity points out the need not to lose sight of it, exceeding other differences and similarities pointed out among their learning styles ${ }^{(7)}$.
Lastly, counter-productive behaviors linked to human condition have been identified jeopardizing curriculum planning and/or implementation.

## Aspects to be overcome

1. As seen with positivism and neo-positivism research paradigms, in Argentina behaviorism uses to be regarded as an old learning theory, already overcome and strongly opposed to constructivism. Hence, no pedagogical relation is usually accepted between both theories. However, as mentioned above, in given learning circumstances I think that this incompatibility may be transiently avoided 2. Accepting the link between constructivism theory and medical competencies, the assessment of such competencies looks in our country mainly focused on knowledge and skills, whereas attitudes, habits and values are less specifically assessed. This scenario gets worse if competences are grouped as technical (knowledge and skills), methodological (reacting with an adequate procedure, finding solutions and transferring experiences), participative (ability for organizing, making decisions under uncertainty and assuming responsibilities) and personal (ability for collaborating constructively and communicatively with others, evidencing an interpersonal understanding beneficial for the group) ${ }^{(8)}$ Therefore, this situation obviously requires improvement
2. Turning to the dissimilarity between adult (andragogy) and adolescent learning styles and making particular emphasis in the level of development of abstract thinking, most students admitted to Argentinean universities reveal difficulties in this type of thinking, especially in those Faculties needing it inevitably ${ }^{(9)}$. Consequently, it appears
something hazardous to apply adult learning style to adolescents without criticism
3. As formerly reported the implementation of pure and hybrid PBL curriculum is currently growing in Argentinean medical schools. Beyond its acceptable features and remaining obstacles ${ }^{(1)}$, such implementation has regretfully constituted an opportunity for some uncritical constructivism followers acting during its design, for self-interested and dogmatic teachers and / or for dishonestly committed ones. Accordingly, the former ones overenthusiastically forced improper challenges that, though partially amended at present, keep being part of those remaining obstacles. Meanwhile, self-interested and dogmatic teachers and the dishonestly committed ones move through shortcuts to reach their goals avoiding rigorous and extended training.
One of its consequences may be appreciated in the admission system giving access to higher education teaching bodies, particularly to medical school ones. In this regard, there have been cases in which, sometimes, very skilled persons who could rapidly learn and manage the teaching situations implied in the PBL curriculum were unfairly hampered by other ones with lesser academic background who could only demonstrate a previous lackluster performance. In these cases, instead of emphasizing this poor performance, the mere stay was wrongly understood as true commitment with PBL curriculum. Consequently, the highest attention must be focused on the above mentioned considerations for revising and adjusting to each of them, and for trying to put during academic admissions a promising aptitude before an unproductive stay.
Thanking goodness there are a majority of sincere, disinterested and well-trained people participating in the design and implementation of PBL curriculum.

## Final Considerations

To conclude, this report intends to honestly and responsibly warn well-trained curriculum planners
and executors to be cautious when choosing and managing learning theories. Furthermore, it complementarily highlights the need of refocusing teachers that, pretending to be forward-looking ones, end up harming what at first proclaimed to benefit: the students. As such, a major harm is envisioned; that is creating an antiscientific dogmatism leading students to believe that this is the only way of learning and that their curriculum is the best of all time. Both assertions are fakes and generate close-minded persons instead of the open-minded one, the PBL curriculum purposely pursues.

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