

# Faculty of Veterinary Science

Fakulteit Veeartsenykunde Lefapha la Diseanse tša Bongakadiruiwa

Using data to evaluate the application of a short-time, high-intensity teaching programme and promotion rule on student success

Prof DE Holm & Dr C Steyn\* christine.steyn@up.ac.za







- Only veterinary faculty in RSA (Bachelor of Vet Science)
- 2<sup>nd</sup> year: <150 (2011) 190+ (2015)



 Short-term, high-intensity teaching programme (block system) + promotion rule

Title: A REVIEW OF TIME-SHORTENED COURSES ACROSS

DISCIPLINES.

Authors: Daniel, Eileen L.

Source: College Student Journal, Jun2000, Vol. 34 Issue 2, p298, 11p.

**Document Type:** Article

Subject Terms: \*COLLEGE curriculum

NAICS/Industry Codes: 611310 Colleges, Universities, and Professional Schools

Abstract: Intensive or time-shortened courses taught outside the traditional

semester or quarter are becoming common at many colleges and universities due to the number of non-traditional students. While intense courses are convenient to these students, many educators are concerned about learning outcomes. This article summarizes literature related to the use of intensive course formats in higher education. An overview and history of time-shortened courses along with studies of educational outcomes related to these courses is discussed. Research that addresses teaching techniques for intensive courses, student and faculty perceptions of these courses, and the use of time-shortened courses in a variety of disciplines is

discussed. [ABSTRACT FROM AUTHOR]



 Short-term, high-intensity teaching programme (block system) + promotion rule

An analysis of student and faculty attitudes to intensive teaching

Suzan Burton and Paul Nesbit

Graduate School of Management, Macquarie University, Sydney, Australia

#### ABSTRACT

The Graduate School of Management at Macquarie University has been offering post-graduate courses by an intensive (five day), or 'block' format, and also by a more traditional weekly format for over ten years. The format is so successful that it has been copied by most business schools in Australia for their local and/or offshore programs. However block teaching has received very little attention in the academic literature. This paper reviews the research findings on intensive teaching, analyses student and staff reactions to block teaching, and identifies perceived advantages and disadvantages of the format. Implications for block scheduling and for actions to address perceived disadvantages of the block method are addressed.



 Short-term, high-intensity teaching programme (block system) + promotion rule

> Transition from Longitudinal to Block Structure of Preclinical Courses: Outcomes and Experiences

**Aim** To evaluate the transition from a longitudinal to block/modular structure of preclinical courses in a medical school adapting to the process of higher education harmonization in Europe.

**Methods** Average grades and the exam pass rates were compared for 11 preclinical courses before and after the transition from the longitudinal (academic years 1999/2000 to 2001/2002) to block/modular curriculum (academic years 2002/2003 to 2004/2005) at Zagreb University School of Medicine, Croatia. Attitudes of teachers toward the 2 curriculum structures were assessed by a semantic differential scale, and the experiences during the transition were explored in focus groups of students and teachers.

Darko Marinović<sup>1</sup>, Darko Hren<sup>2</sup>, Dario Sambunjak<sup>1</sup>, Ivan Rašić<sup>3</sup>, Ivan Škegro<sup>4</sup>, Ana Marušić<sup>5</sup>, Matko Marušić<sup>5</sup>

<sup>1</sup>University of Zagreb School of Medicine, Zagreb, Croatia

<sup>2</sup>University of Split Faculty of Philosophy, Split, Croatia

<sup>3</sup>Sisters of Mercy University Hospital, Zagreb, Croatia

<sup>4</sup>Koprivničko-križevačka County Medical Center, Đurđevac, Croatia

<sup>5</sup>University of Split School of Medicine, Split, Croatia











- 2016 Block System in BVSc II
  - Single module over short time period
  - Time-tabling according to credits
  - Various Workshops by Education Innovation
  - Student disruptions

| W        | DAY | DATE | BVSc II                          |    |
|----------|-----|------|----------------------------------|----|
|          | Т   | 1    | VCA 200 block 1                  |    |
|          | F   | 2    | VCA 200 block 1                  |    |
|          | S   | 3    | Rag                              |    |
| 10       | S   | 4    |                                  |    |
|          |     |      | VCA 200 block 1 test             |    |
|          |     | _    | (CBT)                            |    |
| <u> </u> | M   | 5    | WDE 213                          |    |
|          | Т   | 6    | WDE 213<br>VET200 Brac 1         |    |
|          | w   | 7    | WDE 213                          | _  |
|          | T   | 8    | WDE 213                          | _  |
| <u> </u> | F   | 9    |                                  |    |
|          |     | _    | WDE 213                          |    |
| 44       | S   | 10   |                                  |    |
| 11       | S   | 11   | 14/DE 0404-4                     |    |
|          | М   | 12   | WDE 213 test<br>VCA 200 block 2  |    |
| $\vdash$ | 141 | 12   | VCA 200 block 2                  |    |
|          | T   | 13   | VET200 grac,1                    |    |
|          | W   | 14   | VCA 200 block 2                  |    |
|          | T   | 15   | VCA 200 block 2                  |    |
|          | F   | 16   | VCA 200 block 2                  |    |
|          | S   | 17   | 10/1200 0100112                  |    |
| 12       | S   | 18   |                                  |    |
|          |     |      | VCA 200 block 2 test Prac        | v  |
|          |     |      | VPH 200 block 2                  |    |
|          | M   | 19   | Wednesday roster                 |    |
|          | Т   | 20   | VPH 200 block 2                  |    |
|          |     | 21   | VET 202 prac,2<br>Public holiday |    |
|          | W   |      | ,                                |    |
|          | T   | 22   | VPH 200 block 2                  |    |
|          | F   | 23   | VPH 200 block                    |    |
|          | S   | 24   |                                  |    |
| 13       | S   | 25   |                                  |    |
|          | М   | 26   | VPH 200 block 2 Test             |    |
| <u> </u> | IVI | 26   | WDE 213<br>WDE 213               | GC |
|          | Т   | 27   | VET 202 prac,2                   | GC |
|          |     |      | WDE 213                          |    |
|          | W   | 28   |                                  |    |
|          | Т   | 29   | Recess                           |    |
|          | F   | 30   | Public holiday                   |    |
|          | S   | 31   | Recess                           |    |
|          |     |      |                                  |    |



- 2016 Block System in BVSc II
  - Single module over short time period
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  - Various Workshops by Education Innovation
  - Student disruptions
- 2017 Promotion Rule for VCA200 and VPH200 (BVSc II)
  - ≥ 65% Year mark promoted to BVSc III subjects
  - (Finnerty et al. 2010) fundamental basic sciences

VCA200 – Veterinary Comparative Anatomy





VPH200 – Veterinary Physiology & Histology







Final marks (2015 – 2017) from UP
PowerHEDA System (n = 1195)

 Year, Exam & Final marks (2012 – 2017) from UP Exam Commission (n = 2165)

Student surveys



| VCA 200  | Registered | Supplement | Pass rate |
|----------|------------|------------|-----------|
| 2015     | 194        | 22         | 91.8%     |
| African  | 20         | 2          | 85.0%     |
| Coloured | 12         | 4          | 83.3%     |
| Indian   | 21         | 5          | 85.7%     |
| White    | 141        | 11         | 94.3%     |
| 2016     | 187        | 26         | 91.8%     |
| African  | 31         | 8          | 80.6%     |
| Coloured | 10         | 1          | 87.5%     |
| Indian   | 27         | 5          | 92.6%     |
| White    | 119        | 12         | 94.9%     |
| 2017     | 217        | 46         | 91.2%     |
| African  | 36         | 15         | 77.1%     |
| Coloured | 16         | 5          | 81.3%     |
| Indian   | 29         | 8          | 86.2%     |
| White    | 136        | 18         | 97.0%     |
| Total    | 598        | 94         | 91.6%     |



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| VPH 200  | Registered | Supplement | Pass rate |
|----------|------------|------------|-----------|
| 2015     | 196        | 43         | 89.4%     |
| Atrican  | 22         | 1          | 77.3%     |
| Coloured | 12         | 6          | 75.0%     |
| Indian   | 21         | 3          | 90.5%     |
| White    | 141        | 27         | 92.5%     |
| 2016     | 187        | 34         | 83.8%     |
| African  | 31         | 9          | 71.0%     |
| Coloured | 10         | 3          | 88.9%     |
| Indian   | 27         | 6          | 76.9%     |
| White    | 119        | 16         | 88.2%     |
| 2017     | 217        | 36         | 89.4%     |
| African  | 36         | 13         | 72.2%     |
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| Indian   | 29         | 7          | 86.2%     |
| White    | 136        | 12         | 95.6%     |
| Total    | 600        | 113        | 87.6%     |



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Effect of the block system

| Row<br>Labels | Average year<br>mark | Average Exam<br>mark | Average Supp conversion | Pass rate |
|---------------|----------------------|----------------------|-------------------------|-----------|
| Matrix        | 63.4                 | 56.3                 | 64%                     | 93%       |
| VCA 200       | 62.5                 | 55.1                 | 63%                     | 92%       |
| VPH 200       | 64.3                 | 57.4                 | 65%                     | 93%       |
| Block         | 61.5                 | 52.9                 | 63%                     | 90%       |
| VCA 200       | 60.6                 | 52.6                 | 81%                     | 92%       |
| VPH 200       | 62.4                 | 53.2                 | 45%                     | 87%       |



### Effect of the block system

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|---------------|----------------------|----------------------|-------------------------|-----------|
| Matrix        | 63.4                 | 56.3                 | 64%                     | 93%       |
| VCA 200       | 62.5                 | 55.1                 | 63%                     | 92%       |
| VPH 200       | 64.3                 | 57.4                 | 65%                     | 93%       |
| Block         | 61.5                 | 52.9                 | 63%                     | 90%       |
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| VPH 200       | 64.3                 | 57.4                 | 65%                     | 93%       |
| Block         | 61.5                 | 52.9                 | 63%                     | 90%       |
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## Effect of the promotion rule

| Row<br>Labels | Average year<br>mark | %<br>'promoting' | Average exam<br>mark if the year<br>mark <65% | Average Supp conversion | Pass rate |
|---------------|----------------------|------------------|---|-------------------------|-----------|
| No            | 62.6                 | 43%              | 47.9  | 63%                     | 92%       |
| 200<br>VPH    | 61.6                 | 39%              | 48.6  | 67%                     | 92%       |
| 200           | 63.6                 | 47%              | 47.0  | 59%                     | 92%       |
| Yes           | 63.2                 | 46%              | 43.1  | 64%                     | 90%       |
| VCA<br>200    | 62.7                 | 45%              | 37.5  | 78%                     | 91%       |
| VPH<br>200    | 63.7                 | 47%              | 48.9  | 45%                     | 89%       |



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| VPH<br>200    | 63.6                 | 47%              | 47.0  | 59%                     | 92%       |
| Yes           | 63.2                 | 46%              | 43.1  | 64%                     | 90%       |
| VCA<br>200    | 62.7                 | 45%              | 37.5  | 78%                     | 91%       |
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|---------------|----------------------|------------------|---|-------------------------|-----------|
| No            | 62.6                 | 43%              | 47.9  | 63%                     | 92%       |
| VCA           |                      |                  |   |                         |           |
| 200           | 61.6                 | 39%              | 48.6  | 67%                     | 92%       |
| VPH           |                      |                  |   |                         |           |
| 200           | 63.6                 | 47%              | 47.0  | 59%                     | 92%       |
| Yes           | 63.2                 | 46%              | 43.1  | 64%                     | 90%       |
| VCA           |                      |                  |   |                         |           |
| 200           | 62.7                 | 45%              | 37.5  | 78%                     | 91%       |
| VPH           |                      |                  |   |                         |           |
| 200           | 63.7                 | 47%              | 48.9  | 45%                     | 89%       |



### Results

# 1. What is your personal attitude towards the block system?

| # | Answer          | Response | %    |
|---|-----------------|----------|------|
| 1 | Mostly positive | 18       | 22%  |
| 2 | Positive        | 23       | 28%  |
| 3 | Neutral         | 15       | 18%  |
| 4 | Negative        | 13       | 16%  |
| 5 | Mostly negative | 13       | 16%  |
|   | Total           | 82       | 100% |

# 2. How do you perceive your fellow students' attitude towards the block system?

| # | Answer          | Response | %    |
|---|-----------------|----------|------|
| 1 | Mostly positive | 1        | 1%   |
| 2 | Positive        | 3        | 4%   |
| 3 | Neutral         | 14       | 17%  |
| 4 | Negative        | 35       | 43%  |
| 5 | Mostly negative | 29       | 35%  |
|   | Total           | 82       | 100% |

### Results

# 3. How do you perceive the lecturers' attitude towards the block system?

| # | Answer          | Response | %    |
|---|-----------------|----------|------|
| 1 | Mostly positive | 1        | 1%   |
| 2 | Positive        | 5        | 6%   |
| 3 | Neutral         | 23       | 28%  |
| 4 | Negative        | 38       | 46%  |
| 5 | Mostly negative | 15       | 18%  |
|   | Total           | 82       | 100% |



#### Discussion

- Performance in certain demographic groups and subject matters decreased with the block system
  - Time-tabling
  - Faculty members
- Overall student success did not improve with the promotion rule
  - Importance of peer-teaching
- Critical look at credit loads
- Performance in third year (BVScIII)



#### Conclusion

- If a block system is considered:
  - Very good implementation
  - Faculty must get on board
  - Mode of teaching must adapt



# Thank you



#### References

- Burton, S & Nesbit, P (2002). An analysis of student and faculty attitudes to intensive teaching. Celebrating teaching at Macquarie, Macquarie University, NSW, 28-29 November, 2002. North Ryde, NSW.: Macquarie University
- Daniel EL (2000). A review of time-shortened courses across disciplines. College Student Journal, 34 (2): 298-309
- Finnerty, EP *et al.* (2010). Flexner revisited: The role and value of the basic sciences in medical education. *Journal of the Association of American Medical Colleges*, 85: 349-355
- Marinović, D et al. (2009). Transition from longitudinal to block structure of preclinical courses: outcomes and experiences.
  Croatian Medical Journal, 50: 492-506

