

For the Office-based Teacher of Family Medicine

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Feature Editor

Editor's Note: In this month's column, Dan Sepdham, MD; Manjula Julka, MD; Laura Hofmann, MD; and Alison Dobbie, MD, of the Department of Family and Community Medicine at the University of Texas Southwestern Medical Center in Dallas discuss the RIME model described initially by Louis Pangaro, MD, in 1999 and explain how office-based teachers can use this model as a tool for assessment and feedback.

I welcome your comments about this feature, which is also published on the STFM Web site at www.stfm.org. I also encourage all predoctoral directors to make copies of this feature and distribute it to their preceptors (with the appropriate *Family Medicine* citation). Send your submissions to williamh@bcm.tmc.edu. William Huang, MD, Baylor College of Medicine, Department of Family and Community Medicine, 3701 Kirby, Suite 600, Houston, TX 77098-3926. 713-798-6271. Fax: 713-798-7789. Submissions should be no longer than 3–4 double-spaced pages. References can be used but are not required. Count each table or figure as one page of text.

Using the RIME Model for Learner Assessment and Feedback

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Office-based teachers contribute greatly to residents' and students' clinical learning. Ambulatory preceptors enjoy teaching,¹ but many struggle to develop standard methods to assess learners and give timely, nonjudgmental feedback.² In this paper, we describe a practical tool, the RIME model, to help office-based teachers address these challenges.

Pangaro first described the RIME model in 1999 as a developmental framework for assessing learners in clinical settings.³ The model describes a progressive continuum of four performance levels: reporter, interpreter, manager, and educator.

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In 2002, Battistone and colleagues proposed a fifth level, observer, to serve as an introductory stage for the model.⁴ For a pictorial representation of the RIME model, see Figure 1.

Description of the Stages of the RIME Model

Preceptors can use this model to assess the level of an individual learner's clinical performance during ambulatory case presentations. See Table 1 for an example. Learners at the observer level, typically an early first-year medical student, will not yet have the skills to take a pertinent history or present a patient. Learners at the reporter level, typically most second-year medical students, will be able to reliably, respectfully, and honestly gather information, write basic notes, differentiate normal from abnormal, and present their findings.

Interpreters, typically most early third-year students, will be able to present a patient case, select the important issues, offer differential diagnoses, and support arguments for or against various diagnoses. Learners at the manager level, typically most late third-year and early fourth-year students, will be able to present the case, offer a differential diagnosis, and formulate diagnostic and therapeutic plans. Learners who have reached the educator level will be able to do all of the above plus define important questions, research information regarding the topic, and educate others. Some students will attain educator level skills by the time they graduate from medical school, while others may not achieve this level until they are residents.

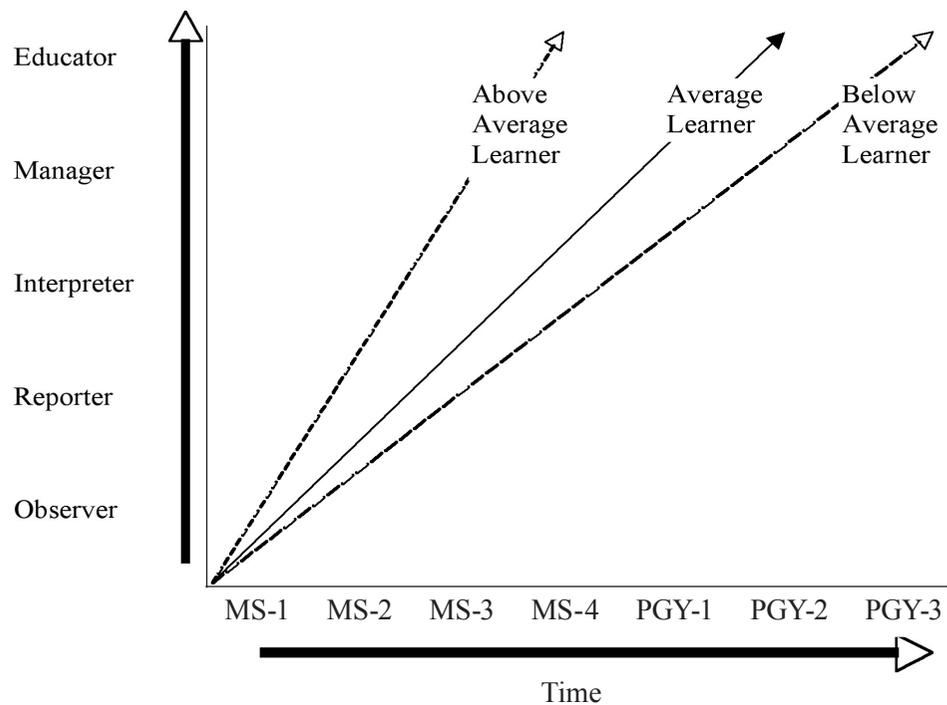
The RIME model can be equally useful to residency faculty in conducting a baseline assessment

of new interns and also in tracking residents through their postgraduate training. Interns should at least be accurate, concise reporters and competent interpreters,³ becoming effective managers for more complex patients than those they managed as a student. As they assume supervisory duties in their second year, residents should demonstrate refined manager skills of increasingly more difficult patients and also take initiative to educate patients, students, and residents. In general, senior residents should not graduate without demonstrating the ability to independently manage a wide variety of clinical problems and supervise and educate patients and other learners.

Value of the RIME Model

The model provides a common descriptive terminology that is highly acceptable to learners and preceptors.^{4,5} The RIME

Figure 1
The RIME Developmental Process



Modified from "The Learning Vector" by Stritter and colleagues.⁹
 MS—medical student
 PGY—postgraduate year

Table 1

Case Example: A Young Woman With a Urinary Tract Infection

RIME Level	Description	Case Presentation by RIME Level	Preceptor Coaching Response
Observer	Bystander	"Ms XX is a 23-year-old female. The nurse reports she is complaining of burning on urination."	"Good. Now, go in and ask the patient herself to describe to you what she is feeling."
Reporter	Understands "what" is wrong	"... and the patient reports dysuria, hematuria, and pyuria for 3 days. She denies nausea/vomiting, fevers/chills, or flank pain. Her vital signs are stable, and her physical exam is normal. She has no abdominal tenderness or flank tenderness. Her urine dip is notable for positive nitrites, blood, and leukocyte esterase."	"Excellent report. Now, "Interpret" these symptoms and signs for me. What do you think could be going on? Let's come up with a differential diagnosis."
Interpreter	Understands "why" it is wrong	"... Based on her symptoms and abnormal urine dip, I believe she has a urinary tract infection. Other possibilities might include bacterial vaginosis, vaginal candidiasis, or an STD."	"Excellent differential diagnosis. Now, how will we proceed to "Manage" the workup?"
Manager	Understands "how" to address the problem	"... I'll complete the workup by sending her urine for microscopic examination and culture. I'll also perform a vaginal exam and obtain specimens for KOH/wet prep, and GC/chlamydia. I plan to treat with drug XX for 3 days."	"That sounds like a first-class workup and an excellent plan. Why would you choose this particular antibiotic instead of drug YY, and why treat for 3 days rather than 5 or 7?"
Educator	Committed to self-learning and education of the team	"This case meets the criteria for a simple UTI, and the latest research indicates that for cases of simple UTI, drug XX is more cost-effective and efficacious than drug YY."	"Good job, you are right on top of the latest literature. Now let's get you a more complicated case"

descriptors are nonjudgmental and assist teachers in giving meaningful feedback. The RIME model may promote consistent evaluation by encouraging teachers to compare learners against a set of standardized criteria rather than against other learners (criterion versus peer referencing). The model may also help preceptors detect learners at academic risk. In one study, Hemmer and colleagues reported that formal feedback sessions using the RIME model had the highest predictive value of several measures used to identify at-risk students.⁶

Using RIME in the Office Setting

We suggest that office-based teachers use the RIME model in the following manner. During an orientation session with the learner, present the model to establish a shared vocabulary for feedback. Confirm that you will give routine, daily feedback using this vocabulary. Be specific about expectations. For example, with an early third-year student, state, "By the end of the clerkship, I expect you to present all but the most complex patients at a 'Manager' level." When assessing a learner's presentation, ask yourself questions such as "What is the RIME level of this presentation?" "Is it appropriate for this learner's developmental level?" "How can I coach the learner to advance his/her skill level?" Target your feedback and coaching specifically to enhance

the learner's current performance. One example of a case presentation by RIME levels, with associated "coaching" questions, is displayed in Table 1.

Limitations of the RIME Model

The RIME model is practical and useful, but it has some limitations. Its validity has not been established as the sole summative method for awarding grades,^{7,8} and therefore we do not recommend its use as the only means of assessment. Instead, we recommend that preceptors add this model to their "tool box" of assessment methods and continue to use additional tools such as direct observation to assess their learners. Also, while the RIME model helps teachers to assess how well learners accomplish complex tasks and multiple skills to formulate a patient presentation, it does not specifically address individual skills, especially procedural skills such as the ability to suture a wound.

Conclusions

We recommend that office-based teachers add the RIME model to their teaching armory and use it to establish a shared, nonjudgmental vocabulary to assess learner's presentation skills and coach them to improve. The evidence is that it is a practical, useful assessment and feedback tool that is highly acceptable to learners and teachers.

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