defined algorithm would presumably vary from well-known, structured algorithms, and thus avoid the problem of rote memorization of responses by the student.

Use of the modules **54***k–p* of the virtual instruments tutor box **52** provides information about instruments commonly used in Code scenarios. In some instances, opportunities to practice using some of the virtual instruments **12** in patient care protocols with the simulator **14** are provided.

Referring to FIG. **18**, selection of the Sounds module **54***k* (FIG. **5**) by the user causes the program **15***a* to display a series of screens, such as display **220**. The display **220** includes a Sounds box **222** containing an On/Off button **222***a*, and a list of selectable heart and lung sounds, respectively **222***b* and **222***c*. Selection of a sound from the lists **222***b–c* will direct the program **15***a* to display a tutorial box **222***d* with information relating to the selected sound. The display is navigated by the Back, Next, and Exit buttons, respectively **80–84**, and additionally contains a representation of a human torso **224** (e.g., **14**' of FIG. **1***b*), such that when a stethoscope icon **226** (e.g., **12**' of FIG. **1***b*), corresponding to the position of a mouse (not depicted) of the computer **15**, is moved around the torso, the stethoscope icon glows when placed in the correct anatomical area for hearing the selected sound and the program **15***a* plays the sound. Thus, the program **15***a* displays both audio and visual feedback for learning the location for detecting selected body sounds in a patient. An Exit item **228** is provided for exiting the module **54***k* and returning to the display **40** (FIG. **5**).

Alternatively, the portion of the program **15***a* controlling the sounds and stethoscope icon may be excerpted and saved to a portable data storage device, such as a CD-ROM, to create a learning system for locating selected body sounds in a patient featuring both audio and visual feedback.

Referring to FIG. **19**, selection of the Vital Signs module **54***l* (FIG. **5**) causes the program **15***a* to display a series of screens, such as display **230**. The display **230** includes a Vital signs monitor box **232** containing indicator boxes for systolic pressure, diastolic pressure, heart rate, and oxygen saturation, **232***a–d*, respectively. The display **230** is navigated by the Back, Next, and Exit buttons, respectively **80–84**. A Sample Rhythms item **234** contains a group of selectable rhythms for the user to observe, such as a normal sinus rhythm, sinus bradycardia, idioventricular rhythm, ventricular tachycardia, and ventricular fibrillation. An Exit item **236** is provided for exiting the module **54***l* and returning to the display **40** (FIG. **5**).

Referring to FIG. **20**, selection of the Virtual ECG Monitor module **54***m* (FIG. **5**) causes the program **15***a* to display a series of screens, such as display **240**. The display **240** includes an Electrocardiograph box **242** for displaying the ECG sweep **242***a*, and having a heart rate indicator **242***b* and On/Off button **242***c*. The display **240** is navigated by the Back, Next, and Exit buttons, respectively **80–84**. A Sample Rhythms item **244** contains a group of selectable rhythms for the user to observe, such as a normal sinus rhythm, sinus bradycardia, idioventricular rhythm, ventricular tachycardia, and ventricular fibrillation. An ECG Sounds item **246** allows the user to enable or disable the associated sounds. An Exit item **248** is provided for exiting the module **54***m* and returning to the display **40** (FIG. **5**).

Referring to FIG. **21**, selection of the Automatic Defibrillator module **54***n* (FIG. **5**) causes the program **15***a* to display a series of screens, such as display **250**. The display **250** includes a Control box **252** having an advisories box **252***a*, and On/Off, Analyze, and Shock buttons **252***b–d*. The display **250** also has an ECG box **254** having a sweep **254***a*, and On/Off button **254***b*. The display **250** is navigated by the Back, Next, and Exit buttons, respectively **80–84**. A Sample Rhythms item **256** contains a group of selectable rhythms for the user to observe, such as a normal sinus rhythm, sinus bradycardia, idioventricular rhythm, ventricular tachycardia, and ventricular fibrillation. An ECG Sounds item **258** allows the user to enable or disable the associated sounds. An Exit item **259** is provided for exiting the module **54***n* and returning to the display **40** (FIG. **5**).

Referring to FIG. **22**, selection of the Manual Defibrillator module **54***o* (FIG. **5**) causes the program **15***a* to display a series of screens, such as display **260**. The display **260** includes a Control box **262**, having an imbedded ECG sweep **262***a*, an advisories box **262***b*, buttons **262***c–g*, respectively On/Off, Energy Select, Charge, Shock, and Synchronize, as well as a heart rate display **262***h*, and a selected energy indicator **262***i*. The display **260** is navigated by the Back, Next, and Exit buttons, respectively **80–84**. A Sample Rhythms item **264** contains a group of selectable rhythms for the user to observe, such as a normal sinus rhythm, sinus bradycardia, idioventricular rhythm, ventricular tachycardia, and ventricular fibrillation. An ECG Sounds item **266** allows the user to enable or disable the associated sounds. An Exit item **268** is provided for exiting the module **54***o* and returning to the display **40** (FIG. **5**).

Referring to FIG. **23**, selection of the Electrocardiograph module **54***p* (FIG. **5**) causes the program **15***a* to display a series of screens, such as display **270**. The display **270** includes an ECG box **272**, having an associated ECG sweep **272***a*, a heart rate indicator **272***b*, and an On/Off button **272***c*. A Pacer box **274** is also provided by the program **15***a* and has buttons for power, mode, rate, and output, **274***a–d*, respectively, having associated status indicators **274***e–h*. The display **270** is navigated by the Back, Next, and Exit buttons, respectively **80–84**. A Sample Rhythms item **276** contains a group of selectable rhythms for the user to observe, such as sinus bradycardia and idioventricular rhythm. An ECG Sounds item **278** allows the user to enable or disable the associated sounds. An Exit item **279** is provided for exiting the module **54***p* and returning to the display **40** (FIG. **5**).

Although illustrative embodiments have been shown and described, a wide range of modifications, changes, and substitutions are contemplated. In some instances, certain features may be employed without a corresponding use of the other features in the foregoing disclosure. Furthermore, it is understood that variations may be made in the foregoing embodiments without departing from the scope of the disclosure. Accordingly, it is appropriate that the appended claims be construed broadly.

What is claimed is:

1. An interactive education system for teaching patient care to a user, the system comprising:

a patient simulator;

a virtual instrument for use with the patient simulator in performing patient care activities, wherein the virtual instrument is selected from a group consisting of at least one IV needle, an ET tube, an ECG monitor, a BP cuff, a pulse oximeter cuff, a temporary external pacer, an AED, a manual defibrillator, and a virtual stethoscope;

means for sensing an interaction between the virtual instrument and the simulator, and

means for providing feedback to the user regarding the interaction between the virtual instrument and the simulator.

2. The system of claim **1** wherein the virtual instrument and the simulator are tangible objects.