



# Peningkatan Keterampilan Metakognitif

Pebelajar Biologi  
di Kawasan Pertanian Industrial

**Dr. Bea Hana Siswati, S.Pd., M.Pd.**

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## UU No 28 tahun 2014 tentang Hak Cipta

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Dr. Bea Hana Siswati, S.Pd., M.Pd.

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## PENINGKATAN KETERAMPILAN METAKOGNITIF PEBELAJAR BIOLOGI DI KAWASAN PERTANIAN INDUSTRIAL

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Desain Cover :

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Sumber :

www.shutterstock.com (eamesBot)

Tata Letak :

**Zulita A.**

Proofreader :

**Meyta Lanjarwati**

Ukuran :

**viii, 84 hlm, Uk: 15.5x23 cm**

ISBN :

**978-623-02-5817-6**

Cetakan Pertama :

**Januari 2023**

Hak Cipta 2023, Pada Penulis

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**PENERBIT DEEPUBLISH  
(Grup Penerbitan CV BUDI UTAMA)**

Anggota IKAPI (076/DIY/2012)

Jl.Rajawali, G. Elang 6, No 3, Drono, Sardonoharjo, Ngaglik, Sleman

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## KATA PENGANTAR PENERBIT

Assalamualaikum, w.r. w.b.

Segala puji kami haturkan ke hadirat Allah Swt., Tuhan Yang Maha Esa, atas limpahan rahmat dan karunia-Nya. Tak lupa, lantunan selawat serta salam senantiasa tercurahkan kepada Nabi Besar Muhammad saw.

Dalam rangka mencerdaskan dan memuliakan umat manusia dengan penyediaan serta pemanfaatan ilmu pengetahuan dan teknologi untuk menciptakan industri *processing* berbasis sumber daya alam (SDA) Indonesia, Penerbit Deepublish dengan bangga menerbitkan buku dengan judul ***Peningkatan Keterampilan Metakognitif Pebelajar Biologi di Kawasan Pertanian Industrial***.

Terima kasih dan penghargaan terbesar kami sampaikan kepada penulis, Dr. Bea Hana Siswati, S.Pd., M.Pd., yang telah memberikan kepercayaan, perhatian, dan kontribusi penuh demi kesempurnaan buku ini. Semoga buku ini bermanfaat bagi semua pembaca, mampu berkontribusi dalam mencerdaskan dan memuliakan umat manusia, serta mengoptimalkan pemanfaatan ilmu pengetahuan dan teknologi di tanah air.

Wassalamualaikum, w.r. w.b.

Hormat Kami,  
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## PRAKATA

Atas rahmat Allah Yang Maha Kuasa, alhamdulillah penulis dapat menyelesaikan buku dengan judul *Peningkatan Keterampilan Metakognitif Pebelajar Biologi di Kawasan Pertanian Industrial*. Buku ini disusun berlandaskan hasil peninjauan mandiri penulis bersama tim sejawat sejak tahun 2012. Buku ini berisikan teori-teori yang berkaitan dengan metakognisi yang diperkuat dengan temuan-temuan hasil penelitian.

Dengan kehadiran buku ini, semoga dapat menjadi bahan referensi pendidik (dosen/guru), pebelajar (mahasiswa/siswa), serta peneliti yang tertarik dalam bidang metakognisi. Tren pendidikan masa kini telah banyak mengulas konsep tentang metakognisi pebelajar. Dalam buku ini juga diuraikan secara nyata bagaimana membelajarkan suatu materi kepada pebelajar di daerah pertanian industrial sehingga keterampilan metakognitif pebelajar bisa meningkat.

Secara keseluruhan, buku ini merupakan bagian penting dalam mendalami proses kognisi, metakognisi, serta penerapannya dalam pembelajaran. Semoga buku ini dapat bermanfaat bagi semua.

Jember, 2022  
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**Berikan peluang untuk membuat kesalahan.** Ketika pebelajar diberi kesempatan untuk membuat kesalahan saat dalam pelatihan, seperti selama simulasi, itu merangsang refleksi tentang penyebab kesalahan mereka.

Singkatnya, metakognisi adalah seperangkat keterampilan yang memungkinkan pebelajar untuk menyadari bagaimana mereka belajar dan untuk mengevaluasi dan menyesuaikan keterampilan ini untuk menjadi semakin efektif dalam belajar. Di dunia yang menuntut pembelajaran seumur hidup, memberikan strategi metakognitif baru dan lebih baik kepada orang-orang adalah hadiah yang dapat bertahan selamanya.



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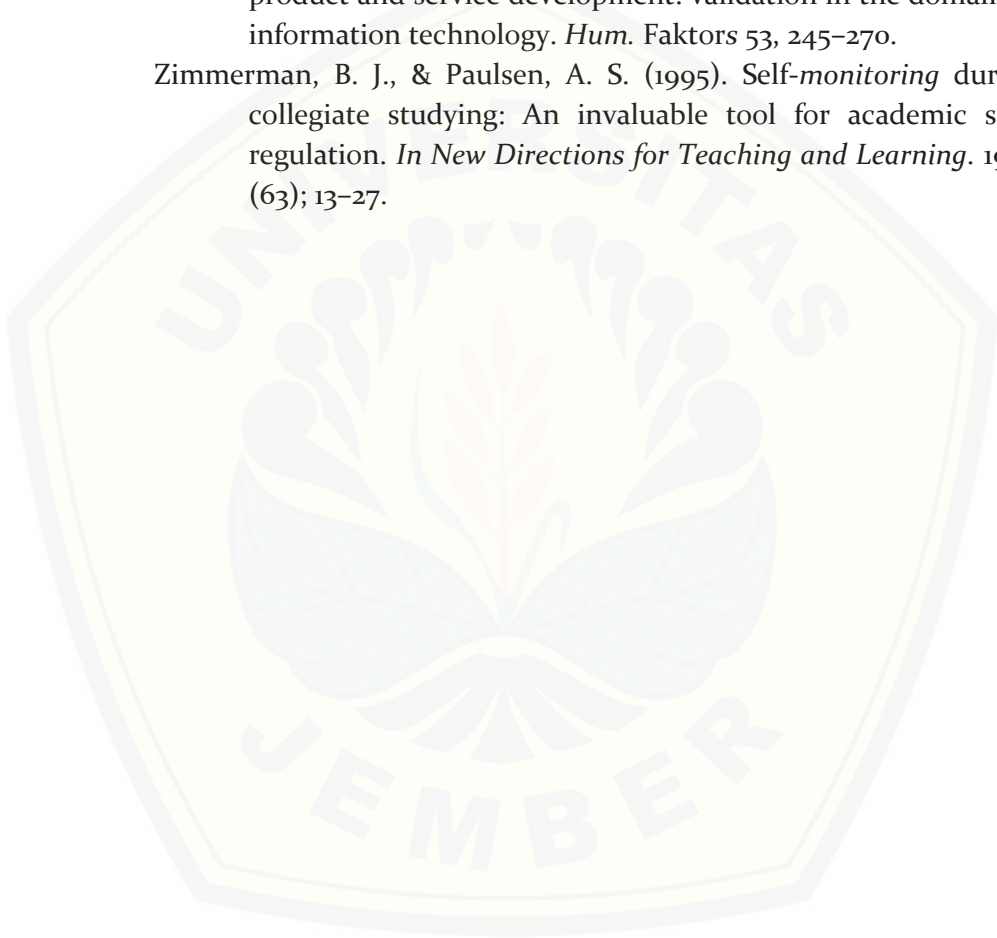
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## GLOSARIUM

**Deklaratif:** Hal bertujuan untuk memberikan informasi sehingga sering disebut dengan kalimat pernyataan.

**Eksplisit:** Makna yang diutarakan secara gamblang, tegas, dan berterus terang.

**Evaluasi:** Suatu proses untuk menyediakan informasi tentang sejauh mana suatu kegiatan tertentu telah dicapai, bagaimana perbedaan pencapaian itu dengan suatu standar tertentu untuk mengetahui apakah ada selisih di antara keduanya, serta bagaimana manfaat yang telah dikerjakan itu bila dibandingkan dengan harapan.

**Ilmiah:** Segala sesuatu yang bersifat keilmuan, didasarkan pada ilmu pengetahuan, atau memenuhi syarat atau kaidah ilmu pengetahuan. segala sesuatu yang dibuat berdasarkan kaidah ilmu pengetahuan dapat disebut ilmiah, seperti karya tulis ilmiah, penelitian ilmiah, metode ilmiah dsb.

**Industrial:** Kegiatan yang memanfaatkan hasil pertanian sebagai bahan baku, merancang dan menyediakan peralatan serta jasa untuk kegiatan tersebut.

**Intersepsi:** Memikirkan perubahan.

**Interpsikologis:** Antara orang.

**Intrapsikologis:** Di dalam psikologis.

**Introspeksi:** Proses menilai pemikiran dan perasaanmu sendiri.

**Kognisi:** Tindakan mental atau proses memperoleh pengetahuan dan pemahaman melalui pikiran, pengalaman, dan indra.

**Kooperatif:** Sikap yang menunjukkan kerja sama, tidak melakukan penentangan terhadap suatu sikap individu maupun golongan tertentu.

**Literasi:** Kemampuan individu untuk membaca, menulis, berbicara, menghitung, dan memecahkan masalah pada tingkat keahlian yang diperlukan dalam pekerjaan, keluarga, dan masyarakat.

**Memori:** Kemampuan untuk mengkode, menyimpan, mempertahankan dan mengingat informasi atau pengalaman masa lalu pada otak manusia.

**Metakognitif:** Sarana untuk berpikir lebih dalam, pada tingkat abstraksi yang lebih tinggi. Ini juga menghasilkan efisiensi dalam berpikir dan belajar.

**Progresif:** Perubahan yang mengarah pada keadaan yang lebih baik.

**Reformasi:** Perubahan terhadap suatu sistem yang telah ada pada suatu masa.

**Regulasi:** Sebuah peraturan.

**Representasi:** Suatu wujud kata, gambar, sekuen, cerita dan sebagainya yang mewakili ide, emosi, fakta, dan sebagainya.

**Sains:** Pengetahuan sistematis yang diperoleh dari sesuatu observasi, penelitian, dan uji coba yang mengarah pada penentuan sifat dasar atau prinsip sesuatu yang sedang diselidiki, dipelajari.

**Simpatik:** Menarik hati.

**Sintaks:** Tahapan pembelajaran.

**Suportif:** Bersifat memberi dukungan dan semangat.

## INDEKS

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## TENTANG PENULIS



Dr. Bea Hana Siswati, S.Pd., M.Pd. lahir di Mojokerto, 1 April 1990. Penulis adalah alumnus S-1 Pendidikan Biologi FMIPA Universitas Negeri Malang tahun 2012, dan melanjutkan program Magister Pendidikan Biologi di program pascasarjana di universitas yang sama dan lulus tahun 2014 dan di tahun yang sama pula melanjutkan program doktoral di Universitas Negeri Malang dengan bidang ilmu Pendidikan Biologi dan lulus pada tahun 2017. Pada tahun 2019 memulai kariernya menjadi dosen di Universitas Jember Program Studi Pendidikan Biologi. Pengalaman mengajar di beberapa mata kuliah di antaranya Biostatistik, Strategi Belajar Mengajar, Belajar dan Pembelajaran, Perencanaan Pembelajaran Biologi, Kapita Selekta Biologi, Evaluasi Pembelajaran Biologi, Pengembangan dan Telaah Kurikulum Sekolah, Perkembangan Peserta Didik, Pembelajaran Agrisains Kontemporer, Teaching for Thinking, Inovasi Pembelajaran Biologi dan Microteaching. Penelitian yang dilakukan mengarah pada penelitian di bidang pendidikan biologi juga kemampuan berpikir khususnya metakognisi, begitu juga publikasi yang sudah dilakukan yaitu berkaitan dengan biologi dan pembelajarannya. Hingga buku ini diterbitkan terdapat 14 paper yang telah diseminarkan pada seminar nasional maupun seminar internasional serta 6 paper pada jurnal internasional dan 3 paper pada jurnal nasional. Karya lain yang ditulis dan diterbitkan mulai tahun 2020 adalah 9 buku ilmiah (buku teks dan bunga rampai) dan 7 buku fiksi (kumpulan puisi).

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Banyak penelitian yang telah mengkaji peran metakognisi dalam pembelajaran. Mengingat pentingnya pemberdayaan metakognisi dalam pembelajaran maka buku ini dihadirkan dengan tujuan membuka wawasan para pendidik tentang pentingnya metakognisi diberdayakan pada diri pemelajar serta bagaimana pendidik bisa mengasah kemampuan metakognitif dalam pembelajaran melalui strategi-strategi pembelajaran. Strategi pembelajaran yang disarankan adalah strategi pembelajaran yang terbukti efektif mampu mengasah kemampuan metakognitif pemelajar baik di jenjang sekolah dasar hingga perguruan tinggi.

Keterampilan metakognitif yang dibelajarkan kepada pemelajar tentu akan lebih terasa efektivitasnya ketika seorang pendidik mampu menghubungkan pembelajaran mereka dengan kehidupan sehari-hari pemelajar (kontekstual). Kehidupan sehari-hari pemelajar di wilayah Indonesia, khususnya Kabupaten Jember adalah pertanian industrial yang kaya akan hasil tani dan perkebunan, yang mana proses bertani hingga panen semua prosesnya dapat dimanfaatkan untuk proses belajar. Pengalaman yang didapat pada daerah pertanian industrial ini dapat dimanfaatkan oleh pendidik untuk mengajar pemelajar dan memberdayakan keterampilan-keterampilan pemelajar selama proses pembelajaran.



**Dr. Bea Hana Siswati, S.Pd., M.Pd.** lahir di Mojokerto, 01 April 1990. Penulis adalah alumnus S-1 Pendidikan Biologi FMIPA Universitas Negeri Malang tahun 2012, dan melanjutkan Magister Pendidikan Biologi di Program Pascasarjana di universitas yang sama dan lulus tahun 2014, di tahun yang sama pula melanjutkan Program Doktorat di Universitas Negeri Malang bidang ilmu Pendidikan Biologi dan lulus pada tahun 2017.

Pada tahun 2019 memulai kariernya menjadi dosen di Universitas Jember Program Studi Pendidikan Biologi. Penelitian yang dilakukan mengarah pada penelitian di bidang pendidikan biologi juga kemampuan berpikir khususnya

metakognisi, begitu juga publikasi yang sudah dilakukan yaitu berkaitan dengan biologi dan pembelajarannya.

Hingga buku ini diterbitkan terdapat 14 *paper* yang telah diseminarkan pada seminar nasional maupun seminar internasional serta 6 *paper* pada jurnal internasional dan 3 *paper* pada jurnal nasional. Karya lain yang ditulis dan diterbitkan mulai tahun 2020 adalah 9 buku ilmiah (buku teks dan bunga rampai) dan 7 buku fiksi (kumpulan puisi).



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