Agricultural Extension & Communication, PRC Board TOS Based Reviewer

Module F: Technology Diffusion and Adoption Process • Module G: Program Planning, Monitoring, and Evaluation • Module H: Adult Teaching and Learning

By Agriculture Review • Visit: agriculturereview.com

Practice Questions (Items 1–50)

1. When a new drought-tolerant corn hybrid is introduced into a farming municipality, adoption progresses slowly during the first two seasons, accelerates sharply during the third and fourth seasons as neighbors see results, and then levels off as nearly all potential growers have adopted. Which adoption curve pattern described in diffusion theory is occurring?

a. A straight linear line rising at a fixed rate every season

b. An S-shaped cumulative adoption curve reflecting slow initial takeoff, rapid acceleration past critical mass, and eventual plateau

c. An inverted U-shaped curve that returns to zero adoption every year

d. A horizontal flat line indicating zero communication across the community

2. After learning a standardized drip irrigation design from an extension station, smallholder vegetable growers in a windy upland barangay modify the layout by burying lateral tubes slightly beneath mulch and substituting bamboo stakes for plastic pegs to cut costs. What diffusion phenomenon is demonstrated by these growers?

a. Disenchantment discontinuance

b. Pro-innovation bias

c. Re-invention, wherein adopters actively adapt an innovation to fit local farm conditions

d. Authority innovation-decision

3. An irrigators' association votes democratically during a general assembly that all 120 member-farmers must adopt synchronized rice planting dates next season to break brown planthopper cycles, binding every member to comply. Which type of innovation-decision is taking place?

a. Collective innovation-decision

b. Optional innovation-decision

c. Individual trial decision

d. Unilateral discontinuance

4. Several lowland rice farmers adopt a new biological slug-control pellet for one season, but after experiencing heavy slug damage due to poor rainfastness, they abandon the pellets permanently out of dissatisfaction. How does diffusion theory classify this rejection after initial adoption?

a. Replacement discontinuance
b. Passive awareness
c. Critical mass acceleration
d. Disenchantment discontinuance

---

5. An extension agency assumes that every smallholder farmer ought to adopt an expensive mechanical rice transplanter without questioning whether it displaces poor rural landless laborers or fails on terraced hillside paddies. Which conceptual pitfall in diffusion work is the agency exhibiting?

a. Re-invention flexibility
b. Pro-innovation bias
c. Participatory skepticism
d. Opinion leadership neutrality

---

6. A smallholder poultry raiser hears about a new herbal feed additive on a morning farm radio show, then visits the municipal agriculture office to gather pamphlets and ask neighbors about its cost and growth results before deciding whether to test it. Across which two consecutive stages of the classic five-stage adoption process has the farmer moved?

a. Trial to adoption
b. Evaluation to discontinuance
c. Awareness to interest
d. Confirmation to rejection

---

7. Before committing his entire five-hectare cornfield to a new foliar micronutrient spray, a farmer tests the spray on just half a hectare alongside his regular practice to verify yield gain and ease of mixing under his own soil conditions. Which stage of the adoption process is he executing?

a. Trial stage
b. Awareness stage
c. Interest stage
d. Complete discontinuance stage

---

8. Six months after adopting a costly solar-powered water pump, a farmer hears critical rumors from neighbors claiming solar panels fail quickly during monsoon rains, causing him to doubt his purchase. In Rogers' innovation-decision process, at which stage is the farmer experiencing cognitive dissonance, and what should the extension worker do?

AGRICULTURE REVIEW
AGRICULTUREREVIEW.COM

a. Knowledge stage, requiring another introductory radio jingle
b. Persuasion stage, requiring withholding all technical data
c. Decision stage, requiring the farmer to sell the pump immediately
d. Confirmation stage, requiring supportive follow-up visits, maintenance tips, and reinforcement data to prevent discontinuance

9. Why are mass media channels such as provincial radio and social media most effective during the knowledge stage of the innovation-decision process, whereas interpersonal peer conversations and on-farm demonstrations become decisive during the persuasion and evaluation stages?

a. Mass media can never transmit accurate agricultural facts
b. Mass media efficiently introduces new ideas to wide audiences, whereas personal dialogue with trusted peers lowers perceived risk and addresses site-specific doubts before commitment
c. Interpersonal channels are legally barred from mentioning new farm technologies
d. Farmers rely exclusively on mass radio when deciding to invest their life savings

10. In a farming community, a venturesome, college-educated agribusiness owner with strong external contacts in Manila and ample capital is always the very first person to import and test unproven hydroponic sensors, even though local smallholders view him as too unusual to imitate directly. Which adopter category does he represent?

a. Early majority
b. Late majority
c. Innovator
d. Laggard

11. A respected barangay rice farmer who commands the highest local opinion leadership carefully evaluates new certified varieties from the extension office, adopts promising ones ahead of most neighbors, and serves as the trusted advisor whom other villagers consult before changing practices. Which adopter category best describes this farmer?

a. Early adopter
b. Laggard
c. Late majority
d. Non-adopter

12. A cautious elderly upland farmer with minimal cash reserves and strong attachment to ancestral planting calendars adopts a new blight-resistant potato variety only after nearly every other farm in the municipality has already proven it profitable for five consecutive years. Which adopter category does this farmer exemplify?

AGRICULTURE REVIEW
AGRICULTUREREVIEW.COM

a. Innovator
b. Early adopter
c. Early majority
d. Laggard

13. When launching a new village-wide integrated pest management campaign, why should an extension worker prioritize recruiting respected Early Adopters rather than extreme Innovators as visible demonstration cooperators?

a. Innovators refuse to test any new agricultural technology
b. Early Adopters hold the strongest local social credibility and peer influence, whereas extreme Innovators are often viewed as wealthy or eccentric outsiders whose success smallholders cannot easily replicate
c. Early Adopters represent 80 percent of every rural village
d. Innovators are legally prohibited from hosting government demonstration plots

14. Approximately half of a municipality's swine raisers have adopted a new biosecurity footbath and sanitation protocol, but the remaining skeptical Late Majority farmers still hesitate due to tight cash budgets and doubt over whether the extra effort pays off. Which tailored campaign strategy best moves this Late Majority toward adoption?

a. Circulate abstract laboratory research papers written in English
b. Ignore them completely because they never adopt new practices
c. Leverage visible peer testimonials from ordinary neighboring farmers, emphasize financial protection against devastating disease loss, and provide low-cost starter kits or cooperative bulk discounts
d. Rely solely on the endorsements of wealthy distant corporate farms

15. To reach deliberate Early Majority farmers who rarely lead trends yet make up roughly one-third of a farming community, which campaign design matches their decision-making traits?

a. Present practical cost-benefit records from local Early Adopter farms alongside organized neighbor field days allowing thorough peer discussion
b. Demand instant blind adoption on the first day an unproven concept is announced
c. Rely exclusively on punitive legal fines without showing economic returns
d. Target only international agricultural conferences

16. In a case study of a hybrid vegetable project in a northern province, extension agents worked exclusively with the wealthiest 3 percent of farmers classified as Innovators to maximize quick acreage targets. Five years later, wealthy adopters doubled their landholdings while poorer smallholders saw zero adoption and fell further behind. What critical lesson does this case study reveal?

a. Innovators never respond to profitable technologies

b. Adopter-based extension automatically eliminates rural poverty without targeting

c. Poorer farmers should always be excluded from extension demonstrations

d. Focusing solely on resource-rich Innovators widens socioeconomic inequality unless campaigns deliberately adapt technologies, credit, and outreach for Early Adopters and resource-constrained majorities

---

17. A dairy cooperative case study shows that after six respected Early Adopter members achieved 30 percent higher milk yields using urea-molasses mineral blocks and shared results during monthly cooperative assemblies, adoption surged rapidly across the Early Majority within two quarters. Why was this adopter-category strategy effective?

a. Because it bypassed local social networks entirely

b. Because mobilizing trusted Early Adopter opinion leaders triggered peer-to-peer social proof and accelerated the community past the critical mass tipping point

c. Because cooperative members were forced to buy blocks against their will

d. Because urea-molasses blocks require zero farmer understanding

---

18. Evaluating a failed soil-conservation campaign among hillside corn farmers, researchers found that while 90 percent of farmers knew about contour hedgerows, Late Majority and Laggard farmers rejected them because the campaign used only mass radio ads and never addressed extra labor costs or insecure land tenancy. What does this case study demonstrate?

a. Radio ads are effective only for Laggards

b. Late Majority farmers refuse to adopt any practice even when profitable

c. Adopter-category strategies fail if they treat slow adoption purely as an information deficit while ignoring structural risk, labor, and resource constraints facing later adopters

d. High awareness automatically guarantees immediate behavioral adoption

---

19. During a municipal agricultural planning workshop, smallholder mango growers loudly request free knapsack sprayers, yet a technical field survey reveals their real yield bottleneck is severe cecid fly infestation caused by poor orchard sanitation and uncoordinated spraying. How do program planners distinguish these two needs?

a. Free sprayers represent a felt need expressed by farmers, whereas coordinated sanitation and pest management represent an unfelt or normative need that extension must help farmers recognize through dialogue

b. Both requests are completely irrelevant to extension planning

c. Unfelt needs should be imposed secretly without ever discussing them with farmers

d. Felt needs must always be dismissed as irrational complaints

---

20. Which program objective drafted for a municipal rice extension plan best satisfies the criteria of being specific, measurable, attainable, relevant, and time-bound?

a. Make all rice farmers in the province wealthier and happier someday

b. Hold several nice meetings about modern farming whenever staff are free

c. Eliminate all rice pests across the entire nation within one week

d. Enable 80 percent of 150 trained lowland rice farmers in three target barangays to adopt balanced site-specific fertilization and raise average palay yield by 15 percent within two cropping seasons

---

21. Why does bottom-up participatory program planning generally produce higher farmer commitment and sustained adoption than purely top-down planning drafted in a central ministry office?

a. Bottom-up planning eliminates the need for scientific research inputs

b. Involving local farmers in diagnosing problems, prioritizing solutions, and scheduling activities builds genuine ownership and aligns interventions with real local resources and calendars

c. Top-down plans are always prohibited by Philippine law

d. Bottom-up planning guarantees unlimited national government funding

---

22. When facilitating a barangay agricultural program plan with limited municipal funds, farmers identify four problems: clogged communal irrigation canals, low native chicken survival, poor cacao pruning skills, and lack of a concrete basketball court. How should the extension worker guide the community to prioritize and mobilize local resources?

a. Fund the basketball court first to keep local politicians satisfied

b. Pick one problem randomly by drawing lots without farmer input

c. Facilitate participatory ranking based on food security impact, urgency, number of families benefited, and feasibility while mobilizing local bayanihan labor and barangay counterpart funds

d. Postpone all action indefinitely until foreign donors arrive

---

23. After a participatory barangay planning committee agrees on its annual goals for organic vegetable production, what operational document translates those broad goals into concrete monthly activities, assigned responsibilities, target participants, venues, and budget schedules?

a. Annual plan of work and calendar of activities

b. Post-project summative impact report

c. National tariff schedule

d. Individual farmer bank ledger

---

24. Halfway through a two-year dairy goat extension project, a supervisor tracks monthly training attendance, number of forage plots established, and budget burn rate every quarter, whereas an independent team returns one year after project completion to assess whether household milk income and child nutrition actually improved. How do these two management functions differ?

a. Both functions are identical post-project audits

b. Quarterly tracking is summative impact evaluation while the post-project study is routine monitoring

c. Neither activity provides useful management information

d. Routine tracking of inputs, activities, and outputs during implementation is monitoring, whereas systematic post-project judgment of outcomes and impact is evaluation

---

25. Midway through a 16-week farmer training program on cacao fermentation, the extension coordinator conducts a quick mid-term review, discovers that participants struggle with moisture testing, and immediately adds a hands-on troubleshooting session to the remaining weeks. Which type of evaluation is being performed?

a. Summative end-of-project impact evaluation

b. Formative evaluation aimed at improving ongoing program delivery

c. Ex-post cost-benefit liquidation

d. Baseline pre-project census

---

26. Under Bennett's seven-level hierarchy of extension program evaluation, a municipal extension office reports that 120 hog raisers attended its biosecurity seminar and rated the speaker 4.8 out of 5, yet has not checked whether farmers actually built footbaths or reduced hog mortality. Why does Bennett's framework view attendance and satisfaction ratings as weak proof of program effectiveness?

a. Inputs, activities, participation, and reactions occupy lower levels of the hierarchy and do not verify higher-level changes in knowledge, attitudes, skills, field practices, or final farm impact

b. Bennett's hierarchy states that farmer satisfaction is the highest and final measure of impact

c. High attendance always proves that field practices changed permanently

d. Bennett's hierarchy excludes practice change and end results from evaluation

---

27. An evaluator assessing a provincial hybrid corn extension program examines four distinct dimensions: whether program goals matched urgent local farmer needs, whether budgets and staffing were adequate, whether field demonstrations ran smoothly as scheduled, and whether corn yields and net farm incomes actually rose. Which comprehensive evaluation model is being applied?

a. Context, Input, Process, and Product evaluation model

b. Purely linear transmission model

c. Two-step opinion leader model

d. Kirkpatrick reaction-only model

---

28. Using Kirkpatrick's four-level training evaluation model for a mushroom production workshop, an extension specialist administers a post-training skills test right after the seminar and then visits trainees' farms six months later to check whether they are actually cultivating oyster mushrooms and earning net profits. Which levels of Kirkpatrick's model correspond to the skills test, farm cultivation, and net profits respectively?

a. Reaction, inputs, and activities

b. Context, process, and product

c. Awareness, interest, and trial

d. Learning, behavior change, and results

---

29. In a Logical Framework matrix for an irrigation and rice extension project, how should an evaluator properly classify 10 Farmer Field Schools completed, 70 percent of graduates adopting alternate wetting and drying, and a 20 percent rise in annual net farm household income?

a. All three items are strictly project inputs

b. 10 Farmer Field Schools completed is an output, 70 percent adoption is an outcome, and 20 percent higher household income is an impact

c. 20 percent higher income is an output while 10 Farmer Field Schools is an impact

d. 70 percent adoption is an input while 10 Farmer Field Schools is an external assumption

---

30. An extension team compares average palay yields of trained farmers before and after a one-year training program and observes a 25 percent yield jump, claiming full credit for the training. However, neighboring untrained farmers in the exact same watershed also achieved a 23 percent yield jump due to unusually favorable rainfall. What evaluation method would have prevented this faulty attribution?

a. Measuring only participant satisfaction surveys at the end of the workshop

b. Eliminating baseline yield measurements before training starts

c. Including a comparable control group of non-participating farmers alongside baseline and endline measurements to isolate the true net effect of the program

d. Counting only the number of printed manuals distributed

---

31. Why is establishing an accurate baseline survey prior to launching an agricultural extension program indispensable for credible summative evaluation?

a. It provides objective pre-intervention benchmarks on yields, practices, and incomes against which subsequent changes can be rigorously measured

b. It guarantees that external weather shocks will not occur during the project

c. It eliminates the need to monitor activities during implementation

d. It replaces final endline data collection after the project closes

---

32. In a community-based upland agroforestry project, farmers help select their own success indicators—such as spring water flow during dry months and cash earned from coffee—and join extension staff in tracking progress each season. What advantage does this participatory monitoring and evaluation approach offer?

a. It removes all accountability for project budgets

b. It prevents technical staff from analyzing quantitative yield data

c. It delays corrective adjustments until after the project has already closed

d. It enhances local ownership, captures locally meaningful outcomes, and empowers farmers to make timely self-correcting management decisions

---

33. A newly graduated agricultural technician treats a group of 50-year-old veteran rice farmers like elementary school pupils—lecturing from slides for three hours, discouraging interruptions, and prescribing rigid steps without asking about their field history. Which fundamental contrast between pedagogy and andragogy is the technician failing to grasp?

a. Adult learners memorize long theoretical lectures faster than school children

b. Unlike teacher-dependent pedagogy for children, andragogy recognizes adults as self-directed learners whose rich life and farming experiences are essential resources for mutual problem-solving

c. Pedagogy focuses exclusively on farming whereas andragogy applies only to urban offices

d. Andragogy prohibits facilitators from sharing any scientific knowledge with adults

---

34. Why do adult smallholder farmers show far greater engagement when an extension session focuses on solving an immediate outbreak of onion armyworm threatening this month's harvest rather than studying abstract general entomology taxonomy for potential future use?

a. Adults have no capacity to learn biological concepts

b. Adult learning is strictly subject-centered and driven by formal school diplomas

c. Adult learning is problem-centered and task-oriented, driven by immediate real-life relevance rather than postponed subject mastery

d. Farmers attend workshops solely to earn classroom attendance certificates

---

35. In Malcolm Knowles' framework distinguishing andragogy from pedagogy, what primarily motivates adult farmers to persist in a season-long dairy sanitation training compared to young pupils in a compulsory classroom?

a. Internal motivations such as higher farm income, herd health, family welfare, and personal pride rather than external grades or compulsory penalties

b. Fear of failing standardized written final exams

c. Parental threats and classroom detention

d. Desire to memorize textbook chapters verbatim

---

36. Before launching a workshop on soil pH testing, an extension facilitator spends the first ten minutes connecting soil acidity directly to the yellowing leaves and poor fertilizer response farmers recently reported in their own cornfields. Which core principle of Knowles' andragogy is being applied?

a. Forcing passive compliance through authority

b. Ignoring learners' prior farming history

c. Delaying practical application until after graduation

d. Establishing the adult learners' need to know why learning a skill matters to their immediate farm problems

---

37. During a backyard poultry seminar, an older farmer shares a traditional herbal deworming remedy that differs from the commercial anthelmintic protocol recommended by the extensionist. How should the extensionist respond in accordance with adult learning principles?

a. Publicly ridicule the traditional practice as backward superstition

b. Respect and validate the farmer's experience, explore how the local practice works, and collaboratively compare its efficacy and limits alongside scientific options

c. Ignore the farmer's comment completely and continue reading slides

d. Ask the farmer to leave the seminar so others are not confused

---

38. Why does arranging chairs in a circle under a shaded barangay pavilion, addressing farmers respectfully by name, and inviting them to co-set workshop ground rules markedly improve adult participation compared to rigid rows facing a podium?

a. Adults refuse to learn indoors under any circumstances

b. Circular seating eliminates the need for any technical training content

c. A physically comfortable, egalitarian, and psychologically safe learning climate reduces status anxiety and encourages open peer dialogue and shared inquiry

d. Rigid lecture halls are legally restricted to university students

---

39. A livestock extensionist wants to train smallholder goat raisers on assisting difficult kidding births. Applying the principle of readiness to learn in adult education, when is the optimal time to conduct this hands-on training?

a. Short weeks before the herd's peak kidding season when farmers immediately anticipate applying the skill

b. Twelve months before any breeding bucks are introduced to the herd

c. Three months after all does have already given birth

d. During the busiest week of rice harvesting when no goats are pregnant

---

40. In a mixed-age adult training on farm bookkeeping, younger farmers use smartphone calculators comfortably while older farmers prefer simple paper notebooks and large-print tally sheets. How should an effective adult educator apply andragogical principles to this group?

a. Force everyone to use complex spreadsheet software immediately

b. Exclude older farmers from the bookkeeping workshop

c. Abandon bookkeeping entirely because learners have different preferences

d. Respect learner autonomy and diversity by offering flexible tool choices, pairing peer buddies, and focusing on practical farm cash-flow decisions understandable to all

41. Why does lecturing nonstop for two hours without breaks, discussion, or hands-on activity consistently yield poor learning outcomes among adult farmers?

a. Adult farmers cannot understand spoken language in groups

b. Passive one-way lecturing ignores adults' need for active involvement, peer reflection, and immediate practical application, causing rapid fatigue and low retention

c. Two-hour sessions are too short to introduce a single agricultural concept

d. Adult learners prefer silent memorization over practical field exercises

42. An extension trainer wants vegetable growers to master preparing botanical neem extracts rather than merely memorizing the recipe. Applying adult learning principles, which instructional sequence is most effective?

a. Read the recipe aloud three times and administer a written multiple-choice quiz

b. Email a technical journal article to the barangay captain

c. Discuss farmers' pest issues, demonstrate preparation clearly, have small groups prepare and spray test batches themselves, and debrief observations together

d. Show a silent slideshow of neem trees without touching any materials

43. A veteran farmer refuses to adopt reduced tillage because his father and grandfather always plowed fields three times until the soil was fine powder. How can an extension educator use adult learning theory to help him reconsider this deeply rooted habit?

a. Acknowledge his past success respectfully while inviting him to test reduced tillage on a small corner strip so he can observe soil moisture, labor savings, and yield firsthand

b. Tell him his family's farming tradition was completely wrong

c. Deliver a louder lecture citing foreign soil physics textbooks

d. Withhold municipal seed subsidies unless he stops plowing immediately

44. When designing an adult farmer training on cooperative financial governance, why does involving farmer participants in diagnosing their own knowledge gaps at the start of the program raise completion rates?

a. It allows the trainer to skip preparing any learning materials

b. It guarantees every participant already knows everything about accounting

c. It eliminates the need for evaluating learning outcomes afterward

d. Self-diagnosis respects adults' self-concept and ensures the training directly addresses gaps they personally feel motivated to close

45. In David Kolb's experiential learning cycle applied to agricultural extension, what are the four sequential stages through which adult farmers transform hands-on field activity into lasting practical mastery?

a. Passive listening, rote memorization, written testing, and graduation

b. Concrete experience, reflective observation, abstract conceptualization, and active experimentation

c. Awareness, interest, mass broadcasting, and discontinuance

d. Input delivery, budget audit, sanctioning, and reporting

46. In Jack Mezirow's transformative learning model, what typically initiates deep perspective change in an adult learner whose long-standing assumptions are no longer working?

a. Routine repetition of comfortable habits without questioning

b. Memorizing official agency acronyms

c. A disorienting dilemma that challenges existing assumptions, prompting critical reflection and revision of one's frame of reference

d. Passive acceptance of external authority without dialogue

47. In Malcolm Knowles' andragogical process model of program design, why does the facilitator act primarily as a process designer and resource manager rather than a sole content transmitter?

a. Because the model centers on preparing learners, setting a mutual climate, co-planning objectives, diagnosing needs, and guiding self-directed inquiry using diverse learning resources

b. Because adult educators do not need technical competence in agriculture

c. Because content accuracy is unimportant in adult farm training

d. Because adult learners should never interact with scientific specialists

48. During a Farmer Field School on rice integrated pest management, farmers first walk into the paddy to observe insects and plant health, then gather under a tree to discuss what they saw, next connect those patterns to predator-prey balance principles, and finally decide and test their pest management action in the field the following week. Which adult learning model is being operationalized step by step?

a. Aristotle's oratorical model
b. Shannon and Weaver's transmission model
c. Pedagogical rote-drill model
d. Kolb's experiential learning cycle

49. Highland crucifer growers who have sprayed chemical insecticides twice every week for twenty years suffer a catastrophic diamondback moth outbreak despite doubling spray doses. Facilitated by an extension educator, they confront this crisis, critically question their belief that all insects are enemies, discover insecticide resistance and killed beneficial wasps, and redesign their pest strategy. Which andragogy model is demonstrated here?

a. Classical conditioning drill
b. Mezirow's transformative learning model
c. Passive mass-media reception model
d. Top-down pedagogical instruction

50. A dairy cooperative invites an extension specialist to run a six-month herd management program. Instead of bringing a rigid pre-written syllabus, the specialist engages members to co-diagnose mastitis and forage gaps, co-set learning objectives, design flexible hands-on barn sessions, and co-evaluate milk quality improvements each month. Which andragogical model is being applied?

a. Strict teacher-centered pedagogy
b. Unilateral top-down training and visit model
c. Knowles' andragogical process model of mutual planning and self-directed adult learning
d. One-way linear broadcast model

Detailed Answer Key & Rationales (Items 1–50)

1. Correct Answer: b — An S-shaped cumulative adoption curve reflecting slow initial takeoff, rapid acceleration past critical mass, and eventual plateau. In Everett Rogers' diffusion of innovations theory, plotting cumulative adopters over time yields a classic S-shaped (sigmoid) curve: slow growth while only innovators and early adopters participate, steep acceleration once interpersonal networks reach critical mass (around 10–20% adoption), and leveling off as market saturation is approached.

2. Correct Answer: c — Re-invention, wherein adopters actively adapt an innovation to fit local farm conditions. Re-invention occurs when users modify or customize a recommended technology during adoption to lower costs, utilize local materials (bamboo stakes), or solve site-specific microclimate challenges (windy upland mulch anchoring).

3. Correct Answer: a — Collective innovation-decision. Collective innovation-decisions are choices to adopt or reject an innovation made by consensus or democratic vote among members of a social system (such as an irrigators' association), after which all members must conform.

4. Correct Answer: d — Disenchantment discontinuance. Discontinuance is the decision to reject an innovation after previously adopting it. Disenchantment discontinuance happens when adopters abandon a technology due to dissatisfaction with its field performance (e.g., poor rainfastness), unlike replacement discontinuance where a superior alternative supersedes it.

5. Correct Answer: b — Pro-innovation bias. Pro-innovation bias is the flawed assumption held by change agents that an innovation should be diffused and adopted rapidly by all members of a social system without re-invention, rejection, or regard for negative socioeconomic and ecological consequences.

6. Correct Answer: c — Awareness to interest. In the traditional five-stage adoption model (Awareness, Interest, Evaluation, Trial, Adoption), first hearing about an idea on the radio marks Awareness, while actively seeking pamphlets, costs, and peer feedback constitutes the Interest stage.

7. Correct Answer: a — Trial stage. During the Trial stage, a farmer applies an innovation on a small-scale experimental plot (such as half a hectare out of five) to determine its local utility, feasibility, and yield performance before committing to full-scale adoption.

8. Correct Answer: d — Confirmation stage, requiring supportive follow-up visits, maintenance tips, and reinforcement data to prevent discontinuance. In Rogers' five-stage innovation-decision process (Knowledge, Persuasion, Decision, Implementation, Confirmation), post-adoption doubt triggered by conflicting messages is cognitive dissonance during the Confirmation stage; extension workers resolve this through technical backstopping and reinforcement.

9. Correct Answer: b — Mass media efficiently introduces new ideas to wide audiences, whereas personal dialogue with trusted peers lowers perceived risk and addresses site-specific doubts before commitment. Mass media channels create broad initial awareness rapidly, but interpersonal communication with near-peers and local demonstrations provide the two-way reassurance needed to overcome uncertainty during persuasion and evaluation.

10. Correct Answer: c — Innovator. Innovators (the first 2.5% of a system) are venturesome risk-takers with cosmopolitan external ties and substantial financial buffers to absorb potential losses from unproven technologies, though their deviations from local norms often limit their direct peer influence.

11. Correct Answer: a — Early adopter. Early Adopters (the next 13.5%) are well-integrated into the local social system, command the highest degree of opinion leadership, and serve as role models whom neighbors consult to reduce uncertainty before adopting.

12. Correct Answer: d — Laggard. Laggards (the last 16%) are traditional, locally oriented, and extremely risk-averse due to precarious economic resources, adopting only after an innovation has become completely proven and mainstream over many years.

13. Correct Answer: b — Early Adopters hold the strongest local social credibility and peer influence, whereas extreme Innovators are often viewed as wealthy or eccentric outsiders whose success smallholders cannot easily replicate. Working through respected Early Adopters speeds community diffusion because ordinary smallholders identify with their farm conditions and trust their judgment.

14. Correct Answer: c — Leverage visible peer testimonials from ordinary neighboring farmers, emphasize financial protection against devastating disease loss, and provide low-cost starter kits or cooperative bulk discounts. Late Majority adopters (34%) respond to peer pressure, social norms, and tangible reductions in financial risk once an innovation is proven safe and affordable.

15. Correct Answer: a — Present practical cost-benefit records from local Early Adopter farms alongside organized neighbor field days allowing thorough peer discussion. Early Majority farmers (34%) deliberate carefully before adopting; seeing verified local economic records and discussing results with peers during field days satisfies their need for practical proof.

16. Correct Answer: d — Focusing solely on resource-rich Innovators widens socioeconomic inequality unless campaigns deliberately adapt technologies, credit, and outreach for Early Adopters and resource-constrained majorities. This illustrates the socio-economic equity critique of classic diffusion: progressive-farmer strategies unintentionally concentrate benefits among wealthy elites unless smallholders receive tailored support.

17. Correct Answer: b — Because mobilizing trusted Early Adopter opinion leaders triggered peer-to-peer social proof and accelerated the community past the critical mass tipping point. Once Early Adopters demonstrate clear gains and share results in trusted forums, interpersonal networks rapidly carry the innovation into the Early Majority.

18. Correct Answer: c — Adopter-category strategies fail if they treat slow adoption purely as an information deficit while ignoring structural risk, labor, and resource constraints facing later adopters. Non-adoption among poorer farmers frequently stems from tenure insecurity, labor bottlenecks, or capital constraints rather than ignorance; communication alone cannot overcome structural barriers.

19. Correct Answer: a — Free sprayers represent a felt need expressed by farmers, whereas coordinated sanitation and pest management represent an unfelt or normative need that extension must help farmers recognize through dialogue. Felt needs are consciously recognized and voiced by community members, while unfelt (normative) needs are underlying technical problems identified by specialists that require educational awareness-building.

20. Correct Answer: d — Enable 80 percent of 150 trained lowland rice farmers in three target barangays to adopt balanced site-specific fertilization and raise average palay yield by 15 percent within two cropping seasons. This statement meets every SMART criterion: Specific target group and practice, Measurable indicators (80% adoption, 15% yield gain), Attainable scope, Relevant to farm productivity, and Time-bound (two cropping seasons).

21. Correct Answer: b — Involving local farmers in diagnosing problems, prioritizing solutions, and scheduling activities builds genuine ownership and aligns interventions with real local resources and calendars. Participatory bottom-up planning ensures programs fit actual agro-ecological and labor realities while fostering local commitment to sustain outcomes.

22. Correct Answer: c — Facilitate participatory ranking based on food security impact, urgency, number of families benefited, and feasibility while mobilizing local bayanihan labor and barangay counterpart funds. Extensionists facilitate transparent priority-setting criteria focused on agricultural livelihoods and leverage local social capital (bayanihan) and barangay funds to stretch scarce resources.

23. Correct Answer: a — Annual plan of work and calendar of activities. A plan of work operationalizes strategic program objectives into concrete tasks, timelines, responsible persons, venues, target beneficiaries, and resource allocations.

24. Correct Answer: d — Routine tracking of inputs, activities, and outputs during implementation is monitoring, whereas systematic post-project judgment of outcomes and impact is evaluation. Monitoring is continuous internal tracking of execution and resource use, whereas evaluation periodically assesses relevance, effectiveness, outcomes, and long-term impact.

25. Correct Answer: b — Formative evaluation aimed at improving ongoing program delivery. Formative evaluation occurs while a program is still underway so coordinators can diagnose implementation weaknesses and make timely adjustments before completion.

26. Correct Answer: a — Inputs, activities, participation, and reactions occupy lower levels of the hierarchy and do not verify higher-level changes in knowledge, attitudes, skills, field practices, or final farm impact. Claude Bennett's seven-level hierarchy (Inputs → Activities → Participation → Reactions → KASA change → Practice change → End results) shows that evidence becomes progressively stronger as evaluation moves up toward behavioral adoption and farm impact.

27. Correct Answer: a — Context, Input, Process, and Product evaluation model. Daniel Stufflebeam's CIPP model evaluates four interconnected dimensions: Context (needs and goals), Input (resources and plans), Process (implementation fidelity), and Product (outcomes and impacts).

28. Correct Answer: d — Learning, behavior change, and results. Donald Kirkpatrick's four levels are Level 1 Reaction (participant satisfaction), Level 2 Learning (knowledge/skills gained on tests), Level 3 Behavior (on-the-job or on-farm application), and Level 4 Results (final economic/production gains).

29. Correct Answer: b — 10 Farmer Field Schools completed is an output, 70 percent adoption is an outcome, and 20 percent higher household income is an impact. In the Logical Framework results chain, Outputs are immediate deliverables of activities, Outcomes are medium-term behavioral/practice changes among beneficiaries, and Impacts are long-term improvements in well-being or income.

30. Correct Answer: c — Including a comparable control group of non-participating farmers alongside baseline and endline measurements to isolate the true net effect of the program. A difference-in-differences design using both baseline/endline data and a matched control group filters out external confounding factors like favorable weather.

31. Correct Answer: a — It provides objective pre-intervention benchmarks on yields, practices, and incomes against which subsequent changes can be rigorously measured. Without pre-project baseline measurements, evaluators cannot reliably quantify the magnitude of change achieved during or after an intervention.

32. Correct Answer: d — It enhances local ownership, captures locally meaningful outcomes, and empowers farmers to make timely self-correcting management decisions. Participatory Monitoring and Evaluation (PM&E) shifts beneficiaries from passive subjects to active co-evaluators who define relevant success metrics and act immediately on findings.

33. Correct Answer: b — Unlike teacher-dependent pedagogy for children, andragogy recognizes adults as self-directed learners whose rich life and farming experiences are essential resources for mutual problem-solving. Malcolm Knowles contrasted pedagogy (the art and science of teaching dependent children) with andragogy (facilitating self-directed adult learners who bring accumulated life experience).

34. Correct Answer: c — Adult learning is problem-centered and task-oriented, driven by immediate real-life relevance rather than postponed subject mastery. Adults invest learning energy when content directly helps them resolve urgent real-world tasks or crises on their farms today.

35. Correct Answer: a — Internal motivations such as higher farm income, herd health, family welfare, and personal pride rather than external grades or compulsory penalties. While external incentives play some role, Knowles emphasized that adult learners are most powerfully sustained by intrinsic drivers like livelihood security, self-esteem, and quality of life.

36. Correct Answer: d — Establishing the adult learners' need to know why learning a skill matters to their immediate farm problems. Adults need to understand the practical payoff of learning something before committing effort; linking soil pH testing directly to their own yellowing corn leaves satisfies the "need to know" principle.

37. Correct Answer: b — Respect and validate the farmer's experience, explore how the local practice works, and collaboratively compare its efficacy and limits alongside scientific options. Because an adult's experience is central to their identity, dismissing or ridiculing local knowledge triggers defensiveness; respectful comparative dialogue fosters openness to new practices.

38. Correct Answer: c — A physically comfortable, egalitarian, and psychologically safe learning climate reduces status anxiety and encourages open peer dialogue and shared inquiry. Setting an informal, respectful, and collaborative physical and psychological climate is a foundational step in adult facilitation.

39. Correct Answer: a — Short weeks before the herd's peak kidding season when farmers immediately anticipate applying the skill. Readiness to learn peaks when adults face an imminent developmental task or seasonal farm requirement where the new skill is immediately useful.

40. Correct Answer: d — Respect learner autonomy and diversity by offering flexible tool choices, pairing peer buddies, and focusing on practical farm cash-flow decisions understandable to all. Effective adult educators accommodate diverse literacy levels, ages, and tool preferences while keeping focus on shared practical decision-making.

41. Correct Answer: b — Passive one-way lecturing ignores adults' need for active involvement, peer reflection, and immediate practical application, causing rapid fatigue and low retention. Adult learners retain far more through active participation, discussion, demonstration, and hands-on practice than through prolonged passive listening.

42. Correct Answer: c — Discuss farmers' pest issues, demonstrate preparation clearly, have small groups prepare and spray test batches themselves, and debrief observations together. Combining problem discussion, live demonstration, guided hands-on practice, and group reflection aligns with adult skill mastery principles.

43. Correct Answer: a — Acknowledge his past success respectfully while inviting him to test reduced tillage on a small corner strip so he can observe soil moisture, labor savings, and yield firsthand. Respecting prior experience while offering a low-risk experiential trial lets the farmer verify new evidence himself without feeling judged.

44. Correct Answer: d — Self-diagnosis respects adults' self-concept and ensures the training directly addresses gaps they personally feel motivated to close. Involving adults in assessing their own learning needs honors their autonomy and strengthens intrinsic commitment to complete the training.

45. Correct Answer: b — Concrete experience, reflective observation, abstract conceptualization, and active experimentation. David Kolb's four-stage experiential learning cycle moves learners from doing/observing in the field (Concrete Experience), reflecting on observations (Reflective Observation), forming general principles (Abstract Conceptualization), to testing improved actions (Active Experimentation).

46. Correct Answer: c — A disorienting dilemma that challenges existing assumptions, prompting critical reflection and revision of one's frame of reference. Jack Mezirow's transformative learning theory explains how an unexpected crisis or contradiction ("disorienting dilemma") compels adults to critically examine taken-for-granted beliefs and adopt a transformed perspective.

47. Correct Answer: a — Because the model centers on preparing learners, setting a mutual climate, co-planning objectives, diagnosing needs, and guiding self-directed inquiry using diverse learning resources. Unlike pedagogical content plans, Knowles' andragogical process design treats the educator as a facilitator of a participatory learning process rather than a mere lecturer.

48. Correct Answer: d — Kolb's experiential learning cycle. Agro-ecosystem analysis in Farmer Field Schools directly operationalizes Kolb's cycle: field observation (Concrete Experience), group discussion under a tree (Reflective Observation), ecological principle synthesis (Abstract Conceptualization), and testing management decisions next week (Active Experimentation).

49. Correct Answer: b — Mezirow's transformative learning model. The severe diamondback moth outbreak acted as a disorienting dilemma that shattered the farmers' twenty-year assumption about routine chemical spraying, leading through critical reflection to a fundamental shift in pest management worldview.

50. Correct Answer: c — Knowles' andragogical process model of mutual planning and self-directed adult learning. Engaging cooperative members in mutual diagnosis, joint objective setting, flexible experiential design, and participatory evaluation exemplifies Knowles' seven-element andragogical process model.

AGRICULTURE REVIEW
AGRICULTUREREVIEW.COM